

better quality of coal can be obtained, and to work which they have imported heavy machinery from England at an enormous cost, looking forward to a new reciprocity treaty, and consequent increase of business.

The new machinery is certainly wonderful for its massiveness and strength. A walking-beam which I saw is composed of wrought iron, and weighs seventeen tons. The cages for the shaft are made of steel by the Bessemer process, and are models of strength. The building for the engine is of solid masonry, and the engine itself of enormous power and weight. Indeed weight, ponderosity, seems to be the necessary elements of British strength. A railroad extends from the mines to the loading-ground on Pictou Harbor, where vessels can readily come up to get their loading.

The Albion Mines formerly employed as many as 800 to 900 men, but this number is now reduced by the slackness of trade to 300 or 500. The village where the miners live is laid out with some attempt at regularity, but the houses present a poverty-stricken and dilapidated appearance, and want of neatness in their surroundings, painful to the American eye. This Company last year mined about one hundred thousand tons of coal, selling at \$2.25 (gold) per ton.

The coal is bituminous, and best suited for gas purposes; much of it is used by the New York and Boston Gas Companies; it makes a very superior coke. Contiguous to the Albion Mines are those of the Acadia Company. This Company is, with one exception (Hugh Allan, Esq., Montreal), made up of New York men. Its officers are as follows: J. W. Clendennin, President and Treasurer; Cambridge Livingstone, Secretary; Jesse Hoyt, General Agent. Directors: J. W. Clendennin, E. S. Sanford, Cyrus W. Field, C. B. Hoffman, Marshall Lefferts, New York, Hugh Allen Montreal. The property was originally purchased by Mr. Cyrus W. Field from a citizen of Pictou for the sum of \$52,000 (gold). Mr. Field considered it a good investment, and with his usual liberality divided it among his friends on his return to New York. General Lefferts was the first President of the Company, and Jesse Hoyt, Esq., Superintendent of the Nova Scotia Telegraph Company, General Agent. General Lefferts, however, was unable to give the time and attention to the enterprise which its importance required, and resigned about a year since, being succeeded by Mr. Clendennin, who has exhibited great energy and judgment in his management, being ably assisted by Mr. Hoyt, who has the entire local charge, and whose efficient and judicious superintendence will make this one of the richest mines in the country. The first borings brought to light a seam of coal of the same character as at the Albion mines, and probably a portion of the same, in which the coal, though a fair quality, was interseamed with foreign matter, detracting much from its value. But two years since a new seam was discovered, twenty feet in thickness, of the finest quality of rich bituminous coal, the best discovered in the Province; this discovery so enhanced the value of the adjoining property, that a similar area has been sold to the Incecolonial Company for \$150,000.

The Territory of the Acadia Company comprises in mining area, four square miles, and in surface and woodland, 1,400 acres; this is held on a lease of 80 years, paying a royalty on coal sold of five per cent. *ad valorem*.

The two collieries at present in operation are the McGregor, having a slope (or inclined entrance shaft) of 700 feet, and a seam of 12 feet; and the Acadia with a slope of 400 feet, and a seam of 20 feet. The Acadia coal crops out absolutely on the surface only a few feet below the grass; the entrance down an inclined plane of 350 feet leads you to transverse passages, one extending 1,600, the other 700 feet, these being again intersected by cross-passages, or galleries of various lengths. An air shaft conveys air into the mine, and at the base, in a chamber showing the whole depth of the seam, are two furnaces, kept constantly burning

for purification; the effect in the huge, black coal chamber, with its mysterious galleries made more mysterious by the flashing of the furnace fires; the smart pitmen, with their little stars of lamps fastened to their hats; and the general impression that you are in the depths of the earth gives you a curious and not altogether agreeable sensation, which is not improved by your progression through those black and inscrutable galleries, guided by one of the sooty pitmen aforesaid, and lighted by a little tin apology for a lamp with which you are provided. I breathed more freely, in all senses of the word, when I reached the surface of the earth again. The coal is really beautiful; it resembles anthracite in its brilliance, but is soft and easily broken in the hand; as a domestic coal it is better than the Liverpool, and not very inferior to the channel; it burns with a clear, brilliant flame and throws out no flakes, being exceedingly clean to handle.

The price of the coal is \$2.25 per ton at the wharf, the same as the Albion, which is far inferior; add duties, premium on gold, and freight, and it costs in Boston about \$8.50 per ton; with free trade it could be delivered in New York for \$7 per ton, while Liverpool is \$14 to \$15, and Channel \$18 to \$20. For steam purposes treatment of iron, and domestic uses this coal is the best in the Province.

The Acadia Company commenced operations in 1866, and its capacity is about one thousand tons per day. A branch railway, 3 1/4 miles long, connects the mines with the Nova Scotia Railway to Halifax and Windsor, and the Company possesses a loading-ground on the harbor of Pictou; so its facilities for transportation are unexcelled. About three hundred men are employed, who earn from \$1.50 to \$2.50 per day each.

Stores containing all necessary commodities are already in full operation. The new machinery for hauling coal, pumping, &c., is now being erected, having been made at the Novelty Works, New York, and also contrasts with the English work, in its lightness and evident strength, combined with elegance of appearance.

The amount of coal shipped for the present year will be about 75,000 tons, as they are getting out about 300 to 400 tons a day at present.

When it is taken into consideration that the carboniferous system of Nova Scotia occupies a large portion of ten out of the eighteen counties, and that what I have described is merely the workings of eight square miles, and those in their infancy, it will be seen how much room there is for speculation on the Nova Scotia coal trade of the future. As these coal-measures contain iron ores of the richest character, producing bar-iron of a better quality than any manufactory elsewhere in the British Dominions, and steel only equalled by that of the Dannemora mines of Sweden, something may be hereafter looked for in this industry. —*Cor. N. Y. World.*

THE UTILIZATION OF PEAT FOR SMELTING PURPOSES.

The use of peat in the smelting of iron ores has been frequently attempted on many French and German metallurgical works. It has, however, generally proved that, for the most part, insuperable difficulties have stood in the way of attaining the end in view. The chief difficulty to contend with in the use of peat in blast furnaces seems to be the ease with which it crumbles into small pieces, thereby choking up the furnace, and, in the end, rendering it necessary to blow out. We are told of an occasional exception to this, in case of the use of very rich peats—the furnaces, under such circumstances, having given very satisfactory results. We are glad to learn that an attempt is now being made in this country to utilize the peat beds of the Lake Superior region for the purpose of smelting the rich ores of iron so abundant in that locality.

B. M. Peirce, Sr., Metallurgist and Mining

Engineer of the French School, is attempting to prove, beyond all question, the adaptability of this kind of fuel to the smelting of ores in blast furnaces. Should his efforts be crowned with success it will be a fine thing for the Superior regions. Bituminous coal from the deposits of Pennsylvania or Ohio would no longer be a matter of necessity. There would, in all probability, be a saving of at least one-half in the cost of fuel. That would, indeed, be an item of no small consideration were it to come to the chances of success, as between two rival metallurgical districts. An allusion was made in our last issue, in the Mining Summary article upon the the Copper District of Eastern Vermont, to the attempt made there, a short time ago, to utilize the peat in the smelting of copper ore. Should the attempt to prepare it, so that it can be used successfully in the iron furnaces of Lake Superior, succeed, we shall consider that, other things being equal, the problem is likewise solved for the Vermont copper furnaces. We may, then, fairly consider that the experiments now going on are, in point of fact, not for the Lake Superior region alone, but rather for all regions where peat and ore beds are round in close proximity, with, of course, a scarcity of all other kinds of fuel.

We hope soon to learn of the complete success of Mr. Peirce's attempts in the utilization of peat as fuel in the running of blast furnaces. —*Journal of Mining.*

SILVER ORE. — A Chicago paper says:—A magnificent specimen of dog tooth spar was exhibited on 'Change, taken from the Shunian (Silver) Mines of Thunder Bay, on the northern shore of Lake Superior, and presented by Messrs. N. C. Norse and J. E. Withers, of the Mining Company, to the Chicago University. It is a rarity in size and beauty, and will, we doubt not, be highly prized by all connected with the institution chosen as the recipient.

Iron works have been established at Marquette on the southern shore of Lake Superior, which, it is expected, will produce pig iron at less cost than is done at Pittsburg.

Perhaps the best evidence of the permanency of the mines of the precious metals may be found in the fact that, after more than three or four centuries of operation, more or less active, the silver mines of Mexico remain as her greatest industrial resource, the basis of her commerce, and the best security she can offer for the cost of any improvement she may contemplate.

Railway News.

GREAT WESTERN RAILWAY.—Traffic for week ending 11th Sept., 1868.

Passengers	\$39,094 67
Freight and live stock.....	42,577 66
Mails and sundries.....	1,831 41
	\$83,503 74
Corresponding Week of '67.	83,497 77
Decrease.....	\$5 97

NORTHERN RAILWAY.—Traffic Receipts for week ending Sept. 19, 1868.

Passengers	\$2,984 81
Freight	8,904 33
Mails and Sundries.....	281 03
Total Receipts for week.....	\$12,170 17
Corresponding week 1867.....	10,911 38
Increase.....	\$1,258 79

—Hon. M. Carling has been chosen a director of the Great Western, in the room of T. C. Street resigned.