

Company. Efforts are being made to find new markets farther west in Ontario, as well as to increase the exportation. In the North-West Territories many small mines have been opened, and the output shows a substantial growth. Coke is now being made in Alberta. On December 31st, 1904, fifty-six beehive ovens were in operation at Coleman, Alta., and thirty-four Belgian ovens, Bernard type, were in operation at Lille, Alta. In British Columbia, the output of the Western Fuel Company in Vancouver Island was considerably diminished owing to the destruction by fire of the head works at No. 1 mine. The Crow's Nest Pass Company, however, continued to increase its output, over 1,000,000 tons of coal being produced, of which more than half was used in making coke. This company has now 1,128 coke ovens completed.

Asbestos.—The production of asbestos divided into crude and mill stocks was as follows:

	Tons.	
Crude .....	4,239	\$509,001
Mill stock .....	31,396	658,277
Total .....	35,635	\$1,167,278

Exports of asbestos according to customs returns were: 37,272 tons valued at \$1,160,887.

Natural Gas.—There was a somewhat increased production of natural gas in Ontario, due entirely to operations in the Welland field, production in the Essex field having dropped to very small amounts.

The development of the gas field at Medicine Hat, North-West Territories, seems to have been continued with much success. The gas commission of the town of Medicine Hat has now six producing wells, one of which has been put down to a depth of nearly a thousand feet yielding  $1\frac{1}{2}$  million feet per twenty-four hours. The Canadian Pacific Railway Company has just completed drilling a well to a depth of 989 feet with  $4\frac{3}{8}$ -in. casing to 941 feet. The pressure per square inch developed in eighteen hours was 525 pounds.

Cement.—The production of natural rock cement, which has for a number of years been small in comparison with the output of Portland cement, shows another large decrease in 1904, the sales being only 56,814 barrels, valued at \$49,397, as compared with 92,252 barrels valued at \$74,655 in 1903.

Although a much larger quantity of Portland cement was sold in 1904, the total value, owing to the fall in price, is only slightly in excess of that in 1903.

In the absence of complete returns, Portland cement statistics have been partially estimated. The following is, however, a close approximation:

	Barrels.	Valued at.
Portland cement sold .....	900,358	\$1,272,992
Portland cement manufactured .....	908,990	
Stock on hand, Jan. 1st, 1904 .....	124,919	
Stock on hand, December 1st, 1904 .....	133,551	

The imports of Portland cement in 1904 were:

Six months ending June, .....	cwt. 829,872	\$ 320,137
Six months ending December .....	cwt. 1,916,336	740,919

Total .....

This is equivalent to about 784,630 barrels of 350 pounds each, at an average price per pound of \$1.35. The duty is twelve and a half cents per hundred pounds.

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## LIGHT, HEAT, POWER, ETC.

An electric lighting and power plant will probably be installed at Granby, Que.

Messrs. Ratz Bros. have installed a new dynamo of 1,500 lights' capacity in their electric plant at Elmira, Ont.

The MacLaren Electric Light Co., Buckingham, Que., will install a new dynamo in their plant for additional power purposes.

To provide against any emergency arising from failure of electric power, the British Columbia Copper Company has installed a pumping plant on the artificial lake created by damming up Copper Creek with hot slag.

Officials of the Grand Trunk Railway have selected a site for the proposed electric power house at Sarnia, Ont.

William Kennedy, C.E., and R. S. Kelsch, of Montreal, are reporting upon the Kakabeka Falls power development at Fort William, Ont.

At the second annual meeting of the Electrical Development Co., of Ontario, it was stated that the work at Niagara Falls would be completed and in operation by the summer of 1906.

It is proposed to place dams at the outlets of the lakes feeding the Ottawa river, in order to store the surplus water for use during the summer drouths and regulate the flow to the water powers at Ottawa.

It is announced that the Canadian Electric Light Company, Quebec and Levis, has successfully emerged from the difficulties which have been threatening it, and that the reorganization of the company is now complete.

The Montreal plant of the Canadian General Electric Company will be shut down in April, and the equipment removed to Peterboro', because the cost of power is one-third greater in Montreal than it is in Peterboro'.

Hydraulic operations on a large scale will be conducted next year by W. Lawrence Brooze, of New York, on his claims on Bullion Creek, B.C. He intends to install a \$300,000 dredge, an electric plant to run by water power and the best modern appliances for the recovery of gold. A flume 600 feet long will be constructed.

The contract between the city of Sherbrooke, Que., and the Sherbrooke Power, Light and Heat Company for lighting the streets having expired, the company has made an offer to the city that if a contract for ten years is entered into it will reduce the \$60 rate for street lighting to \$50 and give a discount of 10 per cent. on the meter rate.

Herschel & Pringle, engineers, have estimated on the repairing of the foundation of the power house of the Consolidated Lake Superior Co., naming \$750,000 as an approximate figure. One of the company's engineers has estimated that the work can be done for about half that amount. It is thought that to develop 45,000-h.p. an expenditure of about \$1,600,000 will be necessary.

The Metal and Jewelry Section of the Canadian Manufacturers' Association held a luncheon on February 8th, at which K. L. Aitken, consulting engineer of Toronto, spoke on "The Comparative Advantages and Cost of Steam and Electric Power." Relative cost of buying and making power was first dealt with, after which the question of mechanical versus electrical drive was taken up. About fifty members were present, and at the adjournment, a very hearty vote of thanks was tendered to Mr. Aitken for his remarks.

The new electric lighting system which is owned and controlled by Moose Jaw, Assiniboia, is now in effective operation. The electrical apparatus, including the generator, switchboard, pole, line and wiring system, was supplied by Allis-Chalmers-Bullock, Limited, Montreal. The generator is a two-phase, 2,200 volt, 100 k.w., Bullock revolving field type. The power house is equipped with a tandem compounding condensing engine of 160 h.p., built by the Robb Engineering Company, of Amherst, N.S. When the pumps are installed the cost of the building and machinery will be about \$38,000.

The Westinghouse Electric and Manufacturing Company has closed a contract with the Ontario Power Company for an alternating current generator with a rated output of 10,000-h.p. at 85 per cent. power factor. This is in addition to three other machines of similar type which the Westinghouse Company is furnishing for this plant. The generators are of the revolving-field, two-bearing type, designed for direct connection to water-wheels; they generate three-phase current at 12,000 volts and 25 cycles, and run at a speed of  $187\frac{1}{2}$ -R.P.M. Among other apparatus included in the contracts are twelve 3,000-K.W., oil-insulated, water-cooled transformers, wound for 12,000 and 60,000 volts; two 375-K.W. exciters, and complete switchboards. P. N. Nunn and L. L. Nunn are engineers in charge, and the plant is being built by the Niagara Construction Company, of which Francis V. Greene is president.