

## MINING AND SCIENTIFIC NEWS.

A serious coal famine is affecting the states of Montana, Idaho and Utah.

Compared with 1899 the imports of lead from Great Britain to Canada have fallen in value from £41,788 to £21,926 for the ten months ending 31st October.

Canada has exported to Great Britain £185,389 worth of wood pulp in the ten months ending October 31st, as compared with £121,214 worth during the same period of 1899.

Former rates for freight transportation from Victoria to Omineca were as high as one dollar per pound. In 1896 they were 26 cents per pound; in 1899, 17 cents to 25 cents; in 1900, 12 cents per pound.

It is reported from results of actual experiment that overhead wires, working at moderate efficiencies and with reasonably high potentials, can be trusted to transmit power to the distance of 150 miles.

During the year 1900 the Butte copper mines have paid \$13,585,100; the Lake Superior copper mines, \$9,798,000. The Lake Superior mines have paid in dividends to date \$82,898,500; the Butte mines, 43,295,323.

The average man must often have been struck by the difference between the New York price and the London price of silver. The difference is explained by the fact that the New York prices are per fine ounce, the London prices are per standard ounce .925 fine.

Even in the Arctic regions during the miocene period the mildness of the temperate zone prevailed. There were dense forests where nothing but ice is now found. Water lilies grew within eight degrees of the pole. In Europe, meantime, there flourished the lion, elephant, hippopotamus, rhinoceros and other animals which at present seem peculiar to the tropics.

The Nickel-Copper Co., of Ontario, whose large refining works are at Hamilton, have begun operations on a large scale, and have placed in their new power-house two 240-k.w., and one 75-k.w., S. K. C. generators; the former to drive the dynamos for the electrolytic process and the latter to drive the ore process. These three machines are being used as synchronous motors, taking the current from the Cataract Power Company's lines at 2,400 volts.

The only large dredge on the Saskatchewan for gold dredging purposes, is the Otter, which has been equipped with new machinery from England, but not in time to do any real work this season. This is owned by the Drolet Co., who are also building at Edmonton two other large dredges to be fitted up with strong machinery from England. These are of the type so successfully used on the rivers of New Zealand and are to be ready for operations next spring.

There has been great progress in the size of electrical machinery since the dynamo began to be an important factor in industrial affairs. Twelve years ago a machine absorbing 50 horse power and able to maintain 500 16-candle power lamps was considered very large, and machines of this size were the exception rather than the rule. Now dynamos of 2,000 and 3,000 horse power are usual sizes, while a number of machines of 5,000 horse power are working at Niagara Falls.

During last year the 630 miles of electric track in Canada were so used that the total number of miles run by cars was 26,646,847, and the number of passengers carried was 104,033,659. The mileage run and the passengers carried show that for each mile run they carried  $3\frac{1}{2}$  passengers. Compared with the previous year, the number of passengers carried increased nearly nine and one-half millions, and the number of miles run by over a million; the passengers

carried per mile increased from  $3\frac{1}{2}$  to  $4\frac{1}{2}$ . The amount of paid-up capital invested is \$21,700,000. The steam railways in 1899 carried 16,168,191 passengers, running a train mileage of 25,292,856, thus making an average of  $1\frac{1}{2}$  passengers per mile. Together the steam and electric railways carried over 120,000,000 passengers, and the proportion was about 13 by steam to 87 by electricity.

O. R. Sprague, a Buffalo mining expert, has reported that on the property of the Cobb Mining and Developing Company, on Dog Lake, Frontenac county, Ontario, about 400,000 tons of emery are now in sight. It is said that actual tests show this to equal the finest Turkish emery. The company will draw this winter 500 tons into Kingston, and ship to Buffalo, where the material will be manufactured into emery wheels.

The motor recently consigned to the B. A. Corporation, of Rossland, B. C., by the Royal Electric Company, Montreal, is the largest motor ever built in Canada. The motor is an S. K. C. two phase machine, and its capacity is over 1,000 H. P., and is being used to drive the compressors and hoists at the mines. The total weight of the motor, boxed, ready for shipment, was 105,000 pounds, or  $52\frac{1}{2}$  tons. The weight complete of the motor, with its accessories, was over 120,000 pounds, or 60 tons, requiring two full cars to transport it.

The total dividends disbursed by the various companies identified with the mineral industry of the United States in the eleven months ending November 30th as far as reported to the Engineering and Mining Journal amounted to \$114,567,452, paid by 200 companies. Of the total, the gold, silver, copper, lead, zinc and quicksilver mines contributed \$48,759,942, or 42.5 per cent., while the remaining \$65,816,510, or 57.5 per cent., was paid by the petroleum, coal and coke, iron and steel and other companies. Were the dividends paid by private corporations, which are not reported, added, it would appear that the returns received by capital invested in the mineral industry exceed those of any other industry in this country.

The exploring parties sent out in the autumn into Northern Ontario by the provincial government have now all returned. Such a cursory examination as the explorers would be able to make of minerals would not, of course, determine the mineral resources of the new country, but a number of more or less important finds were made; while the reports on the agricultural and timber lands are most encouraging. Pulp timber exists in almost inexhaustible quantities, while there are vast tracts of fine farm land awaiting settlement in a climate that is more temperate than one would suppose from the latitude. These reports are to be published shortly in book form for general information.

During the past eighteen months the population of Sydney, N. S., has increased from 2,500 to 10,000, owing to the operations of the Dominion Steel and Iron Co., which has now two blast furnaces in operation, and early next year will have two more. Four thousand men will be employed at the iron works next year, and the surplus labour of this part of the country has been so drawn on that it is hard to get men for the coal mines. The four furnaces will be able to smelt 400 tons a day. The 400 coke ovens are being got into shape, and it is thought that the steel plant will be in operation about the middle of 1901. The company will ship steel rails to Europe in competition with the United States manufacturers. The works will cover 480 acres, and are the largest ever built as a single undertaking. It is expected that 500,000 tons of pig iron will be produced in 1901, most of which will be converted into steel. About \$5,000,000 has already been spent for buildings and machinery, and the entire plant will cost about \$10,000,000.