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is reduced to a size that would pass through a 1-inch screen, and delivered by bucket elevators to revolving driers of the shell type. These are inclined in the direction of delivery so as to place the dried material on a 16-inch belt conveyor' which carries the crushed ore to the ore bin adjoining the mill. This bin has sufficient capacity to furnish material enough for a day's work, thus insuring running of the mill machinery and allowing for break-downs and repairs in the crushing and drying plants. The final mill process is made up of four successive reductions of the ore in the crushing rolls, each reduction being followed by screening to sift out sand and pulverized stone. The asbestos fibre remains on the screens and is conveyed away by vacuum pipes; the screenings are taken to the waste pile by conveyor. The grading screens are of the revolving type.



**Dominion Asbestos Plant** 

Electric power generated several miles away by water power, furnishes alternating current of 16,000 volts, 3 phase, 60 cycle, which is stepped down to 2,200 volts at the substation close by. This voltage is used on motors without further reduction. The crushers of the Bacon type manufactured by the Jenckes Machine Company, are driven by Allis-Chalmers motors aggregating 250 H.P.

The matter of ventilation and lighting has been given ample consideration. In addition to sufficient window area, a monitor roof firmly braced to resist the wind pressure, which is particularly severe in this part of the province, has been provided with the idea of furnishing ventilation as well as additional light. Though inexpensive, this type of building has proved particularly satisfactory. The danger from fire is practically non-existent, as the power used is electrical.

## **MISCELLANEOUS**

Montreal, Que .- Council are considering plans submitted by Building Inspector Chausse for the enlarging of the City Hall by the erection of an annex to the rear of the present building at a cost of about \$175,000.

Quebec, Que.-It is estimated that over thirty-six millions will be spent on public works in Quebec during the next five years. An estimate follows :-

Quebec bridge and approaches, \$10,000,000.

Dry dock and ship-building yards, \$5,000,000.

Grand Trunk Pacific terminals, \$3,000,000.

Quebec and Saguenay Ry., \$2,000,000. Q. R. L. and P. Co.'s improvements, \$1,500,000.

Customs house and other Government public buildings

\$1,000,000.

Harbor improvements, including extension Louise Dock, etc., \$2,000,000.

anadian Pacific Hotel and station extension, \$1,500,000. Four thousand new houses at an average cost of \$2,000 each, \$8,000,000.

Civic improvements in Limoileu, etc., including two bridges over the St. Charles River, \$500,000. Battlefields Commission, \$1,000,000.

Total, \$36,500,000.

## THE TRANSMISSION SYSTEM OF THE 12AHO-ORECON POWER COMPANY.

The present transmission system of the Idaho-Oregon Light & Power Company, in the region surrounding Boise, Idaho, comprises two water-power generating stations; one of 1,500 kilowatts capacity at the Horseshoe Bend of the Fayette River, and one of 900 kilowatts capacity at Barber Dam on the Boise River, six miles from the City of Boise, together with about 112 miles of high tension transmission line, approximately one-half of which operates at the transmission potential of 66,000 volts and one-half at 23,000 volts.

The two generating stations, above referred to, at the present time supply the principal load of the system, the lighting and traction service of the City of Boise, through 23,000 volt lines. To supply the region north and west of Boise where, besides the local service, power is used for mining, a transformer sub-station has been installed at Emmett, 42 miles from the city and 16 miles beyond the power plant on the Horseshoe Bend line, stepping up from 23,000 to 66,000 volts through three 1,000 kilowatt delta connected Westinghouse transformers. From this station the 66,000 volt lines continue through the Plymouth and Ontario substations to the Weiser sub-station. Sixty-five miles northwest of this point, the Idaho-Oregon Company is building the great Oxbow hydraulic water-power plant on the Snake



## Ontario Sub-station, Idaho-Oregon Power Co., showing entrance of 66 000 volt lines.

River, which will make available approximately 30,000 horsepower, and will ultimately be used to supply the principal load of the system at Boise, at a transmission distance of 125 miles.

When the Oxbow station is completed and put into operation, the Horseshoe Bend and the Barber Dam plants will be operated as auxiliary generating stations.

The principal sub-station, both in the present plant operation and in the transmission scheme including the new Oxbow stations, is that at Emmett. This station equipment includes three delta connected 1,000 kilowatt transformers, stepping from 23,000 to 66,000 volts, for transforming the principal through load; and three 100 kilowatt 66,000 to 2,300 volts, transformers, star connected, for supplying the local distribution lines in the territory adjacent to the station.

The incoming 66,000 volt lines' from Ontario and Weiser, of stranded aluminum cable of a carrying capacity equivalent to No. 1 copper, are brought into the Emmett sub-station past aluminum cell, electrolytic lightning arresters, and carried through disconnecting switches to impedance coils, and thence to the 66,000 volt station busbars. Feeding from