

**CONTRACTS AWARDED.**

**VICTORIA, B. C.**—Building on Johnson street for Juene Bros.: Robert Dinsdale, contractor.

**FORT FRANCIS, ONT.**—Two-storey cold-storage building for L. Christie: J. F. McKenzie, contractor.

**MONCTON, N. B.**—Haley Bros., of St. John, are reported to have secured the contract for refitting the post-office here.

**PORT ARTHUR, ONT.**—The Council have just sold \$25,000 town debentures to the Dominion Securities Company, at 105.

**TORONTO, ONT.**—The contract has been let for a new Baptist church at corner of Bloor street and Ossington avenue, brick and stone, cost \$13,000.

**WINNIPEG, MAN.**—The City Council have accepted the following tenders: Supply of 16 and 18 inch valves, Chapman Valve Company, \$305; hydrants, Camden Iron Works, \$6,025 f.o.b. Winnipeg.

**FREDERICTON, N. B.**—It is understood that the Canada Foundry Company, Toronto, have secured the contract for the superstructure of the Fredericton highway bridge.—The Council have disposed of \$10,000 of waterworks debentures to J. W. McCready, at \$25 above par. They are redeemable in 30 years and bear interest at 4 per cent.

**FIRES.**

Hotel at Dymont, Ont., owned by Mrs. Larson; loss \$4,000.—Central Congregational church on Hargrave street, Winnipeg, damaged to extent of \$25,000.—St. Luke's Anglican cathedral, Halifax, N.S., totally destroyed; loss about \$30,000, insurance \$20,000.—Creamery at Richmond Hill, Ont., owned by the Devonshire Manufacturing Company, totally destroyed. A new building will be erected.—Methodist church at Markdale, Ont.; loss, \$8,000.—Machine shop of the Stuart Machinery Company, Winnipeg, Man., partially destroyed; loss \$10,000.—Residence of Charles Ellis, C.E., Winnipeg, loss \$2,000.—Flour mill of Emerson Reid, Portage du Fort, Que.—Building at 364 St. Paul street, Montreal, owned by John Torrance and occupied by the British American Import Company, partially destroyed; loss on building, \$30,000.

**PRODUCTION OF PORTLAND CEMENT.**

According to a report published by the United States Geological Survey, the production of Portland cement in the

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United States in 1903, 22,342,973 barrels, showed an increase of 5,112,329 barrels over that of 1902. This increase in supply was not entirely justified by the demand, and when the year closed a quantity of the Portland cement produced during the year was left unsold in the bins. Prices fell as a result and only the oldest and best known brands were able to maintain their usual market rate. The low price of the artificial product also seriously interfered with the production of natural rock cement, so that many operators of natural cement plants were forced to shut down during a large part of the year.

The total production of hydraulic cement in the United States in 1903 was 29,899,140 barrels, valued at \$31,931,341, an increase of 4,145,635 barrels in quantity and of \$6,564,961 in value as compared with 25,753,504 barrels, valued at \$25,366,380, produced in 1902.

Of the total production in 1903, 22,342,973 barrels, having a value of \$27,713,319, were Portland cement.

The production of natural-rock cement was 7,030,271 barrels, valued at \$3,675,520. This was a decrease in quantity of 1,014,034 barrels and in value of \$401,110, as compared with 8,044,305 barrels, valued at \$4,076,630, the production of 1902. The production of pozzuolana or slag cement was 525,896 barrels, valued at \$542,502. The number of Portland cement works in the country during 1903 was 78.

**SAWING STONE BY WIRE.**

Stone sawing by wire is done successfully in France, according to a paper by Mr. E. Bourdon in the "Bulletin" of the Society for the Encouragement of National Industry. A complete plant comprises an endless wire passing round a series of pulleys, one of which is a driving-pulley. The necessary tension is obtained by a straining trolley working on an incline plane, and between the driving shaft and this trolley is situated the saw frame, which carries the guide-pulleys for the wire saw. This wire, which is driven at a given speed, is caused to press lightly on the stone, and the cutting is done by sand mixed with water, which is conveyed into the saw-cut as the work proceeds. Though the mode of operation appears simple, it entails various difficulties in practical application. Three twisted steel wires are used, each wire having a diameter of 0.098 in. The strands must be twisted fairly tight and should make one turn in 1.18 in. The wire may be driven in the workshop at a speed of 23 ft. per second, but in quarries or adits the speed should not exceed 13 ft. per second. The force exerted by the wire to produce the cut must be uniform and must be capable of being readily varied; moreover, it must be proportionate to the length of the cut.

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