

tending them further into the lake. He advises that the former be carried eighty feet further out, and the latter as far as the end of the wharf.—The Board of Control has ordered a by-law to be prepared for submission to the ratepayers, providing the sum of \$26,000 to lay a 12 inch water main on Front street.—The City Council has ordered that repairs be made to Dundas street, from Bloor to Humber-side, at a cost of \$1,500, and to Lake Shore road, at a cost of \$1,500.—Building permits have been granted as follows: Geo. Foy, 3 storey bk. hotel, s. w. corner Queen and Sherbourne sts., cost \$6,000; Drs. McKenzie and Galloway, 2 storey bk. office, 14 Bloor st. e., cost \$4,000; W. G. Harris, two-storey bk. add. and bk. case present front of factory, 25 William street, cost \$4,000.

MONTREAL, QUE.—The City Council has given notice of its intention to construct a sewer on Plymouth road, from the end of the existing sewer westward to Gaudry street.—Mr. Alex. Scott has purchased property on St. Catharines street west, adjoining Ogilvy's store, and will commence at once the erection of a building to be used as a catering establishment.—The Montreal Amateur Athletic Association have resolved to build a new club house, and the directors have decided to offer premiums for plans for a building to cost about \$100,000.—At a meeting of the Fire Committee held on Monday last, a report was presented by the chairman recommending the erection of several new fire stations, as follows: One on Craig street, to cost \$60,000; one in St. Lawrence ward; one in the East End, to replace No. 7, to cost \$30,000; one on Frontenac street, to cost \$20,000; one in the northern part of St. Denis ward, and a small structure to accommodate a fire engine, a chemical and hose reel, to cost \$10,000; and one in the vicinity of Richmond and William streets, to replace No. 12, to cost \$30,000.—J. H. Macduff, architect, is calling for tenders for two stores and two tenements, three stories, at the corner of Greene avenue and St. Catharine street.—C. St. Jean, architect, is also calling for tenders for a church to be erected at St. Jerome, Terrebonne county.—Building permits have been granted as follows. One house on Peel street, for Alex Walker; two-storey house, two tenements, brick front, on Lasalle street, for Wilfred Leonard; masonry, contractor, Duroches Bros.

#### FIRES.

The iron foundry of H. R. Ives & Co., Montreal, has been damaged by fire to the extent of \$5,000.—Dr. J. B. Oliver's residence and surgery at Newtonville, Ont., was burned on Monday last.—The residence of Francis Waldron, at Newcastle, Ont., was destroyed by fire recently. The loss is heavy.—A frame building at Madoc, Ont., owned by A. B. Ross, was burned on the 13th inst. Insurance \$1,200.—The evaporating plant of T. A. Harrison at Napance, Ont., together with a frame building, was burned on the 13th inst. The machinery was valued at \$1,500 and was partially insured.—The Royal Hotel at Wolfville, N. S., owned by J. W. Backwith, was recently gutted by fire. The loss is covered by an insurance of \$3,000.—H. Poyer's shingle and grist mill at Manotick Station, Ont., has been burned. Rebuilding will be commenced at once.—The large manufactory of D. Hibner at Berlin, Ont., was burned to the ground last week. The loss is about \$50,000, partially covered by insurance.

#### CONTRACTS AWARDED.

DESERONTO, ONT.—The Rathbun company have been awarded the contract for pews for the new R. C. church.

OTTAWA ONT.—Tenders for the sup-

ply of syenite were received as follows: Canadian Granite Co., \$9.00 per toise for unbroken and \$13.50 for broken; Foley & Co., \$9.75 and \$14.50.

QUEBEC, QUE.—The following tenders were received for heating apparatus at Parent Park: Vaudry & Matte, \$1,150; G. Simard & Co., \$935.00; J. Maguire, \$1,085; O. Pickard, \$1,350; Charles Bezina, \$749.00 (accepted).

GODERICH, ONT.—Twenty tenders were received for the construction of sewers. The contract has been awarded to C. A. Humber, of this town, and E. A. Cawsey, of Stratford, the figure being in the neighborhood of \$10,000.

LONDON, ONT.—Geo. Craddock, architect, has let contracts for four houses as follows: carpentry, John Taylor; brickwork, Wm. Martyn; plastering, Gould & Stratford; painting, Henry Spicer; plumbing, L. C. Hunt; heating, James Thompson.

TORONTO, ONT.—W. J. Burroughs & Co. are supplying the hot water heating apparatus for the residence of J. Grant, Woodville, Ont. This firm are also putting in plumbing in six houses on Monroe street owned by the North American Life Insurance Co.—Tenders for heating, plumbing, gas fittings, etc., for the new court house were opened last week. For the whole work six tenders were received as follows: \$198,032, \$190,120, \$187,985, \$191,950, \$208,000 and \$211,000; for the plumbing work, \$60,493, \$47,000 and \$44,000, for the galvanized iron work, \$9,305, \$10,662 and \$9,980. The tender of \$187,985, which was from the Bennett & Wright Co., has been recommended for acceptance.

#### BUSINESS NOTES.

The assets of Drapeau, Savignac & Co. plumbers, Montreal, will be sold by tender.

Argall & Co., paint manufacturers, Three Rivers, Que., have formed a new partnership.

The dissolution is announced of I. Charbonneau & Co., sash and door factory, St. Louis du Mile End, Que.

A demand of assignment is said to have been made on A. D. Turcotte, planing mill proprietor, of Montreal.

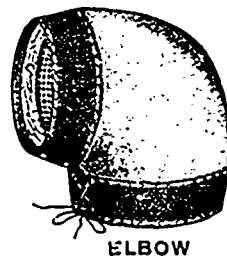
#### FLOOR TEST FOR FIRE AND WATER RESISTANCE.

Through the efforts of Mr. Howard Constable and under the direction of the Department of Buildings, of New York City, a very practical and thorough test was recently made, by which the fire and water-resisting qualities of standard terra cotta as fireproofing for floors was demonstrated.

A rectangular building 12 by 15 feet by 10 feet high in the clear was erected of common brick, with two flues or chimneys and an opening on one side to which iron doors were attached. The floor or ceiling was constructed of iron beams enclosed in terra cotta. At 9 a.m. fire was started and kept in full operation for six hours, during which time the heat registered from 2,000 to 2,200 degrees, and during the last hour or so was sufficient to melt cast iron. At 1 p. m. water was turned onto the building from a regular fire engine at a pressure of 50 pounds to the square inch, after which a load of 600 pounds to the sq. ft. was applied. At 2 p. m. fire was started on top of floor and allowed to burn fiercely for one hour, when water was turned on from fire engine under pressure of 60 pounds to square inch and allowed to play for ten minutes. The result of this test shows that this kind of floor has great resisting capacity when properly laid, both against an intense heat and against water from fire hose under pressure. Some of the lower portion of tile was broken off by the force of the water, but there was no break through the floor. There was a deflection in the floor of an inch or more during the progress of the fire, but it went back three-quarters of an inch when water was applied.

#### CONSTRUCTING A SOLID FOUNDATION.

A new way of constructing a solid foundation for a tall building has been tried with success in Berlin. It was necessary to find a solid base sufficiently strong to carry a building weighing more than 10,000 tons. The plot of ground upon which the building was to stand was adjoined on both sides by high buildings which rendered unsafe the digging to any depth for a foundation. The only way out of the difficulty was the sinking of a caisson in the centre of the plot, upon the cemented top of which a hollow form of cement was built. Into this form molten iron was poured, filling up the space, and upon this cast-iron foundation plate the understructure of the building now rests, while the side walls are supported by a cantilever structure. The full weight of the load upon the cast-iron foundation is estimated at more than 20,000 tons.



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