

of Montreal, the plans for the new scientific building which will be erected next spring on Wilbrod street. The new structure will be of grey stone, with 85 feet frontage, 98 feet depth, and four storeys in height, with a tower 130 feet high. The contract for the building will be awarded in a few weeks, and the work will commence early in the spring.—Debentures will probably be issued by the city for park improvements.—The last survey by the Pontiac & Pacific Junction Railway Company for the projection of their line from Aylmer to Hull has been made.—The Trustee Board of the Nepean public school in Birkton has decided to take steps to secure the erection of a collegiate institute or high school.—The Baptists in the south end of the city purpose erecting a new church on Fourth Ave. next spring. A site has been purchased.—Building permits were last week issued as follows: Jos. Boucher, brick veneered house, Gilmour street, cost \$2,000; Cowie & Wilson, brick veneered house, Gilmour street, cost \$2,000; Bank of Commerce, brick addition, Wellington street, cost \$3,500.

TORONTO, ONT.—It is stated that the Metropole hotel, corner King and York streets, is to be remodelled.—Plans are being prepared in the Works Department for a temporary bridge over the Don, to be used during the period of the construction of the new bridge should the \$62,000 law meet with the approval of the ratepayers.—The city invites tenders up to noon on January 12th for the construction of crib work required in connection with the filling up of block "D," bounded by Bay street, Lorne street, the Esplanade and the Windmill line, and up to 13th St. for construction of a barge, with necessary machinery, and crib work and dock for the ferry.—The promoters of the proposed consumptive sanatorium to be built near Toronto have secured a site near High Park, and expect to commence in the spring the erection of the administration building and several cottages.—Among the bills to come before the Ontario legislature at the coming session are the following: Bill to amend the act for the improvement of Napanee river; bill for guaranteeing Goderich Elevator and Transit Company a bonus of \$50,000; bill to incorporate the Toronto Elevated Railway; bill respecting Haliburton, Whitney and Mattawa Railway; bill to incorporate the Hamilton and Caledonian Railway Company; bill to allow Seaforth to borrow money for a packing house; bill to incorporate the Thunder Bay, Michigan and St. Joe Railway; bill to incorporate the Toronto, Lindsay & Pembroke Railway.—The money by-laws were carried by the ratepayers on Monday. They were three in number, and called for an expenditure of \$150,000 on the remodeling of St. Lawrence Market, \$62,500 on the erection of a new bridge over the Don at Queen street, and \$40,000 for the construction of the waterfront improvements between Bay and Lorne streets. All of these works will be proceeded with as plans can be prepared.

FIRES.

Recent fires included the following: Dwelling house at Sussex, N. B., owned by J. D. O'Connell.—Brick stores in Ottawa East, owned by F. H. Cluff, of Ottawa; damage \$3,000.—Gardner Tool Works at, Sherbrooke, Que., totally destroyed; loss \$25,000, partially insured.—Ogilvie Milling Company's elevator at Pierson, Man., totally destroyed.—The Quinte House at Trenton, Ont., owned by O. Proctor, of Brighton; loss \$2,000.—Simpson & Brocque's butter factory at Hudson, Que.; total loss, fully insured.—Biscuit factory, corner Albert and Vinet streets, Montreal, owned by Joseph Luttrell, damaged to the extent of \$1,500.—Cutchings & Riley's saddlery establish-

ment at Calgary, N.W.T., damage \$2,000.—Flour mill of John Gordon at Wallaceburg, Ont.; loss \$8,000.—Residence of Edward Phipps near Fairfield, Ont.—St. George's cathedral at Kingston, Ont., totally destroyed; loss \$100,000, insurance \$25,000.—Toronto Rubber Company's factory at Port Dalhousie, Ont., damaged to the extent of \$100,000. It is said that an effort will be made to induce the company to rebuild in St. Catharines.

CONTRACTS AWARDED.

ELORA, ONT.—The contract for the construction of an iron bridge here has been let to Mr. Lindsay, of Kincardine.

ACTON, ONT.—\$6,000 of electric light debentures have been sold to the Ontario Mutual Life Assurance Co., of Waterloo, at 103½.

NEW WESTMINSTER, B. C.—Gilley Bros. have been awarded the contract for driving the piles for the foundation of the Columbian Packing Company's new fish freezing establishment on Front street. Work on the superstructure will shortly be commenced.

HALIFAX, N. S.—Herbert E. Gates, architect, 58 Bedford Row, has awarded the following contracts for the erection of a large residence at Dartmouth, N. S., for His Honor Judge Johnstone: Carpenter work, F. Bauld; mason and plaster work, Thomas Leahy; painting, James Leahy; plumbing, Crimp & Ritchie. Electric wiring will be done by day labor, as a new England method is to be employed.

CHATHAM, ONT.—Debentures amounting to \$19,652.77, bearing 4½ per cent. interest and covering periods of 10, 15 and 20 years, have been sold to H. O'Hara & Co., of Toronto, at \$20,875. The other tenders received were as follows: W. F. Buller, London, \$20,036; R. Wilson Smith, Montreal, \$20,429.60; G. A. Stimson & Co., Toronto, \$20,646; F. Marx, Chatham, \$20,700. This price includes the accrued interest.

BUSINESS NOTES.

John Monahan, plumber, of Toronto, is announced to have assigned to H. W. Anthes. The liabilities are small.

Craig, MacArthur & Co., wholesale dealers in plumbers' supplies, Toronto, have assigned to Henry Barber. No statement of affairs has been yet prepared by the assignee.

IRON STANCHIONS IN BRICKWORK.

The fact of stanchions, posts, columns, etc., of wrought and cast iron and steel, playing such a prominent part in large modern buildings, seems to detract for the moment from the importance of the subject of strength in brickwork. Stanchions are generally concealed in brickwork as a protection from fire. Though such uses of iron economises space in the building, and admits of larger window areas for lighting the interior, yet it should never be left exposed, as is too often done, to the danger of a fire occurring in the building. In cases, however, where concealed stanchions do not support the heavy iron girders, brusses, fireproof floors, garden roofs, etc., the half of the weight of such heavy parts is borne by the masonry walls, pilasters, piers, etc. The recent unfortunate accident in Orchard street, Westminster, draws closer attention to the importance of the subject of brickwork strength in large buildings, not only in walls, but

likewise because of its fireproof qualities giving it a preference for interior piers.

When weights of hundreds of tons, more or less concentrated, as occurs in so-called fireproof buildings, have to be safely supported by brickwork, sufficient strength in it for the purpose becomes an important enquiry. Such accidents emphasize the great need of safe data under practical building conditions that are not misleading. Unfortunately too many of the investigations into the safe strength of brickwork are based upon exceptionally favorable conditions of testing which are never met with in building construction. The resulting data are therefore dangerously misleading.

HOW THE PLUMBER FIXED THE BILL.

There is a plumber in Sullwater who is determined that no one shall get the best of him, and recently he demonstrated to one of his customers that it was useless to throw his bills in the waste basket, according to the Gazette. Some time ago he presented a bill to a well known logger, and just for a joke the logger tore the bill into shreds and deposited the remnants in the waste basket. The plumber watched the proceeding without cracking a smile, but deep down in his breast he vowed that the next bill would not be destroyed so easily. Accordingly he secured a large piece of tin and on this the bill was made out.

A Canadian genius claims to have discovered a method of casting granite in a mold. The only secret about it, he says, is in the construction of a furnace melting the stone. The molds are prepared in damp sand in the same manner as for iron or steel molding, and the liquid granite is poured in from ladles. The inventor claims that he can produce columns and fancy cornice pieces cheaper than rough blocks of stone cost delivered at an operation. This is possible because he utilizes the shippings and waste stone about a quarry.

A novel method of moving a tank is described in a recent issue of the Genie Civil. The tank was used to hold petroleum, was 82 feet in diameter, 32 8 feet high, and weighed 140 tons. To remove it 131 feet, a wall 2 feet high and 1 foot thick was built on the level surface of the porous sandy soil, so as to enclose the old and new masonry foundations, which stood a few inches above the surface of the ground. The tank was built with a flat bottom and curved top, from plates 0.16 inch to 0.47 inch thick. It was first filled with air at a pressure of 8 inches of water; then water was pumped into the artificial pond enclosed between the temporary walls until it floated the tank from its foundations, the tank then drawing 8.2 inches. More water was pumped in to raise the tank 4½ inches, and it was then hauled by a windlass and rope to its new site. It was held against a semi-circular row of piles driven around the new foundation until it sank in its permanent position as the water was slowly drawn out of the pond. The tank was uninjured, and its removal occupied a few minutes only.