

operated by electricity, the Toronto Railway Company having offered to furnish the necessary power, but no action was taken in the matter.—While in Montreal a few days ago, Mr. Keating, City Engineer, interviewed the officials of the C. P. R. and G. T. R. companies relative to the bridges over John and York streets, in connection with the new Union Station, and received assurances that the work would be proceeded with without delay.—A building permit has been granted to the Wm. Davies Co., for the erection of an addition to rear of 9790 Yonge st., cost \$2,500.

FIRES.

The brick residence of David Walker, at Owen Sound, Ont., was totally destroyed by fire on the 11th inst. The loss is partially covered by insurance.—The Victoria hotel on Palace street, Quebec, was damaged by fire last week to the extent of \$25,000, a brick wing being totally destroyed. The building was owned by Benjamin Trudel.—The Presbyterian church at Madoc, Ont., was destroyed by fire on the 14th inst. Loss, \$10,000; insurance, \$6,000.—Richard Isle's residence at Midland, Ont., has been burned. Loss, \$1,200; insurance, \$650.—The Masonic Temple at St. Catharines, Ont., was destroyed by fire on Monday last. The building was occupied as a business college on the ground floor, the Public Free Library on the second floor, and by societies on the third floor. It was three stories high with tower and iron front, and was insured for \$10,000.—The Home Company's premises at Merrickville, Ont., including machinery and contents, were destroyed by fire on the 10th inst. Loss, \$3,500. The electric power house was also burned, causing a loss of \$1,500.—The railway hotel at Bracebridge, Ont., owned by Geo. Neil, was burned on Monday last. Loss, \$2,000; partially covered by insurance.—The dry goods establishment of E. E. W. McGaffey, at Lindsay, Ont., was damaged by fire last week. The loss on the building, which is owned by the Dominion Bank, is placed at \$1,200, covered by insurance. Toronto was visited by another disastrous fire on Thursday of last week, which destroyed six wholesale houses, and caused damage amounting to a quarter of a million dollars. The buildings burned were: Os-goodby building, owned by J. W. Woods, loss \$60,000; insurance \$25,000; Hart & Riddell's building, owned by J. T. Reid, loss \$30,000, insurance same amount; buildings owned by Snarr Estate, loss \$35,000, insurance \$25,000; R. H. Gray & Co.'s warehouse, loss \$40,000, insurance \$30,000; Brieron & Mannings' warehouse, owned by Major Carlin, of the Grand Trunk, loss \$40,000, insurance \$25,000; Dr. Abbott, buildings, loss \$25,000, covered by insurance.

CONTRACTS AWARDED.

MONTREAL, QUE.—Mr. H. R. Falbord, architect, has awarded contracts for four houses for A. Lawrence on Walker street, St. Henry, as follows: carpenter and joiners' work, A. Lawrence; roofing and plumbing, Blouin, Girard & Collard; plastering, Joseph St. Maurice; painting, and glazing, O. Cauchon.

TORONTO, ONT.—The Parks and Gardens Committee have accepted the tender of the Thompson Electric Co., of Waterford, Ont., for an electric light plant for Island Park, at the price of \$1,000. The City Engineer has recommended the acceptance of the Toronto Dredging and Contracting Company's tender for constructing borings across the bay, their figure being \$3,815.16. Two other tenders were received, the amount being \$4,715.30 and \$4,453.50.

A demand of assignment has been made on J. B. Tremblay, contractor, Montreal. His liabilities are said to amount to \$2,000.

Lipsell Bros., brickmakers, Mount Bridges, Ont., have made an assignment with liabilities of \$3,000 and assets about \$2,000.

IMPROVEMENTS IN GLASS MAKING.

The manufacture of glass has progressed so rapidly in the last twelve years, that it may now permanently be asked, what cannot be done with glass? M. J. Henrivaux, a prominent French manufacturer of this article, an original and enthusiastic inventor, has recently proved to us, by means of a veritable museum of curious samples, says the Journal des Debats, that everything is becoming possible to the modern glass maker. Even conducting pipes of large diameter have been made of it, tiles, drains, tubes, curtains, furniture, chimneys, and even houses.

Glass is now blown mechanically. M. L. Appert, vice-president of the Society of Civil Engineers, some years ago substituted for the human breath an injection of compressed air. This was a great advance in the perfecting of glass making. The work of blowing was painful and injurious to the health of the workmen. To-day it is the machine which blows; the lungs rest. And as this machine has the breath of a giant, it has become very easy to manufacture objects of great size. This industry has been still further revolutionized by methodical moulding. This was formerly done by placing the glass, which had been made plastic by heat, between two metallic surfaces. But these surfaces cooled too quickly, and the glass with them that it was impossible to obtain large pieces. M. Appert went resolutely to work to find some way of moulding while the glass was in a malleable condition, so that larger pieces could be made. At a short distance from the melting oven is fixed a post, to which a vertical mould is attached, which opens in two or three places on hinges. This mould is of very thick cast iron, and retains the heat. A vertical core moved by a machine crosses the mould from side to side. The melted glass is poured into this mould in suitable quantities. The core is turned rapidly. The glass is driven against the wall of the mould and takes the impression. Several moulds are grouped and form a battery. If pipes are to be moulded, a length of two metres is given to each one, the battery is comprised of eight moulds and cores; these easily perform fifteen operations an hour, and produce thirty metres of pipe, which with the waste, gives a production of 500 metres a day. By this method glass pipes are produced which rival those of sandstone and even of cast iron, and which have the advantage of not being affected by the soil. The resistance of glass is very great. Glass slabs can very easily support carriages of great weight, and champagne bottles are veritable explosive machines, charged with a pressure of twenty-five atmospheres. For certain experiments in Physics, gas, with a pressure of 100 atmospheres, has been sometimes placed in glass tubes.

M. Henrivaux hopes to have a house made entirely of glass as one of the sights of the next exposition. The walls will be constructed of an iron skeleton, on which will be placed slabs of glass in such a manner as to form a double wall, in the interior of which hot air will be circulated in winter, and in summer compressed air, which will cool the walls. The roof will be of glass on a network of iron, and also the walls, the staircases, &c. As glass lends itself readily to all kinds of decorations, brick, marbles, &c., can be imitated.

Flat surfaces are now being manufactured which are very pretty. On one of the surfaces are shown, in relief, various designs obtained at the moment of cooling by the action of a stamping roller. These can be gilded or silvered in various combinations they are used in decorating walls, ceilings, &c. We will soon even have glass hangings and tapestries. M. Henrivaux draws on glass with an aluminum pencil. The metal remains on the glass, and the designs appear in very soft tones. We may look forward to many surprises connected with this material.

McKay Bros., painters, Vancouver, B. C., have assigned.

MUNICIPAL DEPARTMENT.

ONTARIO GOOD ROADS ASSOCIATION.

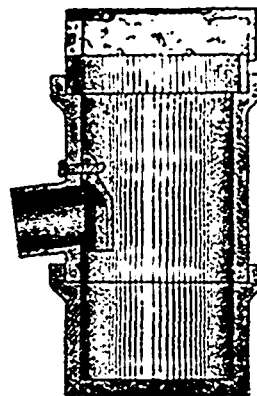
THE second annual meeting of the above association will be held in the Y.M.C.A. building, Yonge st., Toronto, on the afternoon and evening of Feb. 7th, and the forenoon of Feb. 8th—three sessions. While the programme for the meeting has not yet been completely arranged, it is expected that there will be addresses and papers from a number of prominent men interested in the movement, in addition to some of the officers of the Association. Delegates have been invited from the Boards of Trade, the Municipal Bodies, and the various Agricultural Associations and Societies of the Province.

PERPETUAL vigilance is the price of immunity from fire, says the Monetary Times. Every town in Canada should examine its fire appliances once a month, should test the cisterns, see that the fire bell can be got at and will ring; take the engine out and set it working; inspect the hose and play through it; strengthen the chain of fire defence at its weakest link. Only by such precautions can a community be ready to fight fire when it comes—as come it will.

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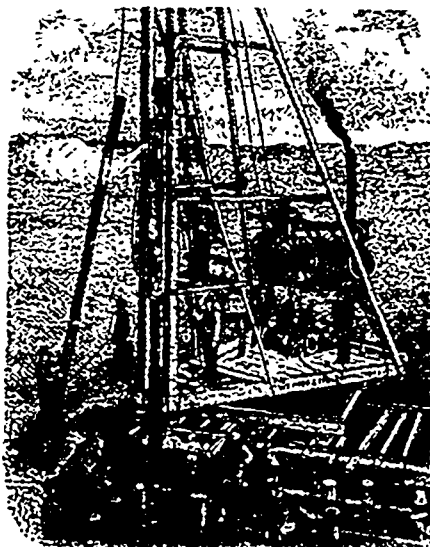
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