

MONTREAL CORRESPONDENCE.

INSURANCE RATES.

The result of the refusal of the property owners to sanction the expenditure for improved fire equipment seems likely to be a further increase in insurance rates. At a recent meeting the Canadian Fire Underwriters' Association adopted the following resolution:—"Resolved, that the association records, with regret, the non-acceptance by the property owners of the recent proposed by-law for the improvement of the fire brigade and appliances and the consequent inability of the city to remedy, even in a modified form, any of the defects detailed in Inspector Howe's recent report on the city's fire brigade and appliances. The attention of the company is drawn to the matter with a view to considering whether the rates now obtained are adequate to the hazard." The Association appointed a committee to consider what action should be taken.

QUEBEC CONCILIATION AND ARBITRATION ACT.

An Act respecting Councils of Conciliation and arbitration for settling Industrial Disputes, passed the Quebec Legislature on March 28th. Its provisions are quite similar to those of the Ontario law of 1897. It provides for a Council of Conciliation consisting of representatives of the parties to the dispute; and a Council of Arbitration a body of a more permanent character, which may, upon application of one of the parties, hear cases which have been before a Council of Conciliation without being settled, or, upon application of both parties, hear cases which have not first gone to the Council of Conciliation. The award of the Council of Arbitration is not binding, excepting with the assent of the parties. The failure of the parties to accept the award does not, however, prevent a further reference to a Council of Conciliation.—The Act applies to all employers employing not less than ten men in the same business.

P. Q. A. A.

At the special meeting of the P.Q.A.A. held on the evening of the 8th ult. there was quite a large attendance, among those present being noticed Mr. Tanguay from Quebec, Messrs. Venne, Archibald, Brown, M. Perrault, A. T. Taylor, Doran, E. Maxwell, W. S. Maxwell, Raza, Restier, Saxe, Lacroix, Monette and others. There was considerable discussion on the new tariff of charges and several strong objections were made by some of the members, but the following resolution was finally adopted: "That a vote of thanks be tendered to Mr. Maurice Perrault for the trouble he took to obtain the tariff for the P.Q.A.A. but we trust it will be amended as soon as possible."

The clause which met with opposition was
On all classes of buildings, costing from \$50,000 to \$150,000 four per cent.

On all classes of buildings, costing more than \$150,000 three per cent

The tariff formerly did not vary on account of the amount spent—only on the class of buildings. We presume the law is intended to read "for the first \$50,000 at 5 per cent. for the next \$100,000. at 4 per cent. and above that figure at 3 per cent." otherwise there will be the absurdity and injustice of an architect's commission on a building costing say \$48,000 bringing a higher remuneration than one costing say \$51,000.

NOTES.

As Mr. Owens is now one of the city's assessors, he has been obliged to give up his business as painter and decorator, and has therefore sold out the good will to his foreman, Mr. Houle.

A fire recently broke out in the offices of the Mount Royal Cemetery Company. A new building is already being built larger and more convenient from plans by Messrs Hutchison & Wood.

The building materials of the old St. Anne's and St. Gabriel Markets were sold on the 13th ult., so that these old city relics are a thing of the past. They have for many years been carried on only at a loss to the city so that we imagine there will not be many tears shed at their departure.

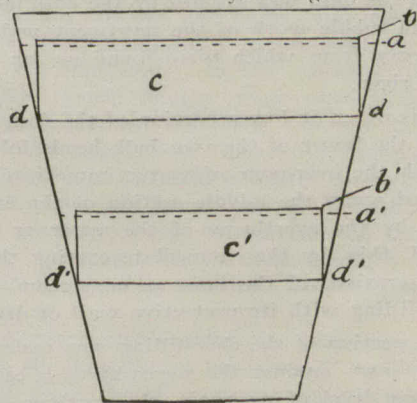
As Royalty is intending to pay Montreal a visit shortly it is trusted that some attempt will be made to put the streets in better repair and also that owners of property will do their share in putting a new coat of paint on the front of buildings in good order. It is wonderful what a

well kept grass plot in front of a house adds to the general appearance so that it is well for architects to bear it in mind.

BRICK IMMERSION TESTS.

One of the greatest difficulties that experimenters on the different physical properties of bricks have had to contend with says a writer in the British Clayworker, is that connected with absorption. The older experimenters used to place the brick under an air pump, and having (as they thought) exhausted all the air from it, they proceeded to immerse it in distilled water. All of which is a careful and cautious proceeding, no doubt, but which had subsequently to give way to the exigencies of practice. Then engineers came along, with rough-and-ready ways and no time to spare, and they simply shot the brick into a tub of water, weighing it before it went in and after it came out—the difference, they held, indicating the porosity of the brick. On second thoughts, both they and the few architects who then took an interest in the subject, began to form the belief that the element, time, ought to be taken into account; but they came to the erroneous conclusion that the longer a brick stayed in the water the more water it absorbed. At about the same period, the chemist announced that bricks contained, as a rule, a considerable amount of matter which was soluble in water, so that the absorption tests ought to be considered *pari passu* with loss of solvent material, when weight only was to be employed as a criterion of absorption. In other words, there was waste, they said, as well as absorption.

The present writer, who in his time has tested the absorptive capacities of different kinds of bricks throughout the country, shewed about six years ago (as a result on



over 400 different bricks) that none of the methods then in vogue gave accurate results. At a very early stage in his work he discovered that when a brick was placed under water it was increasingly difficult for the air to escape from the pores of the brick as the depth of water above the brick was increased. The same brick placed in water three feet in depth gave a different result to the same when only immersed six inches. So, therefore, he devised a plan, which has proved highly satisfactory, that of leaving one of the long narrow edges of the brick just above the surface of the water—the remainder of the brick being immersed. The intrusion of the water into the brick on its immersed sides tends to expel the air from the free surface above the water, and thus there appeared a possibility of arriving at a standard method of testing. And the writer is of opinion that this is the most accurate method of testing absorption.

His further tests, however, have shewn him that there was something lacking, in that the bottom of the brick always rested on a flat surface, and thus precluded the water from having free access to that portion of it.

As a consequence, he has devised a method which, so far as he is aware, is new, though it seems so simple that it is possible another experimenter may have thought of the same thing. This method is illustrated in the accompanying diagram. The vessel containing the water is bucket-shaped—wide at the top and narrow at the bottom. It is designed to take both large and small bricks. Let *a* represent the water level, *c* the brick, and *b* the surface of the brick just projecting above the water. It will be obvious that the only parts of the brick which touch the sides of the containing vessel will be situated at *a*, so that the water has free play to enter the bottom and sides of the partially immersed brick.

When a smaller brick is being dealt with it is necessary to lower the water level, so that the relative positions are *a*, *b*, *c*, *d*, as shewn in the diagram.

It is necessary in these experiments to put in more water to compensate for evaporation during long-time tests and any waste (as from a rubber) should be carefully noted.

Where necessary a chemical examination of the water at the end of a test may be made, to discover if the brick has suffered from dissolution by chemical means. In practice, however, the latter will not often be found necessary, as the difference in actual absorption by the improvements brought about by this new method is sufficiently well marked to tell its own tale.