the Department of Public Works, this city.—Building permits have been granted as follows.—John Hudson, 252 Niagara street, pr. s. d. 2 storey and attic bk. dwellings, 171 and 123 Madison ave., cost $8,000; Toronto Street Railway, one storey bk. car house, n. side Yorkville ave., cost $30,000; Robt Jones, Eglinton, 2 storey bk. addition and one storey bk. kitchen, and to brick case old buildings n. w. corner Mutual and McGill sts., cost, $2,000, Jos. Rowen, Wellesley st., 2 storey and attic bk. dwelling, n. side North Drive, near Roxborough ave., cost $5,500.

CONTRACTS AWARDED.

TORONTO JUNCTION, ONT.—Messrs Greig & Tamblym have been awarded the contract for grading Glendowynne road, at the price of $1,387.50.

ASSINIBOINE, MAN.—The contract for the building of the new rink for the Assiniboine Curling Club has been awarded to Messrs. I. & J. McDiarmid.

PORT COLBORNE, ONT.—The contract for the erection of the smelting works building has been let to Messrs. Dickson & Suess. Work will be commenced at once.

LONDON, ONT.—Mr. John Purdom has been awarded the contract for carpenter and joiner work of the new Collegiate Institute, at $8,875 New tenders are to be called for plastering.

KINGSVILLE, ONT.—The contract for the erection of the new Methodist church has been awarded to Mr Thos. Tenner, at the price of $8,000, the trustees to furnish the brick, stone and and sand.

BELLEVILLE, ONT.—The G. & J. Brown Manufacturing Company, of this town have been awarded contracts for three steel spans for the Erie and Huron railway near Chatham, and for steel bridges at Thornbury, Elmira, Harwich, Woodstock and Toronto Junction.

IMPORTANCE OF PARTY WALLS.

A recent decision of the Supreme Court of Illinois may make a vast deal of trouble for holders of a good deal of Chicago's business property. It seems that one of the provisions of the ordinary party-wall contract makes it necessary for an adjoining property owner, if he uses any part of the wall, to pay for half the construction of the whole wall. A party wall built between two lots occupies, as is pretty generally known, an equal space upon each lot. This is done so that the owners may suffer equally as regards being deprived of real estate and retain equal benefits from the wall. The facts which led up to the decision in question are interesting because of the possible bearing which the decision may have on a good deal of valuable property. Some years ago C. C. P. Holder built a party wall between the lots at 298 and 300 west Madison street. The cost of the wall was $3,600. Subsequent to the erection of the wall Holden became financially embarrassed, and the property was sold. In the contract of sale, however, no mention was made of the party wall. Since the building of the wall the property has been transferred three or four times. Finally J. H. Kedzie, well known in this city, bought the lot at 298 and made arrangements with the owners of the lot at 300 to use a part of the party wall, and paid her a sum of money in consideration of such usage. Mr. Holden, when he learned of this, brought suit against Mr. Kedzie and against the owner, a lady to whom Mr. Kedzie had paid money for the use of the party wall. His claim was, that under the law he, Holden, had never parted with any of his rights in the party wall, and that if Kedzie used any portion of said wall he must, in accordance with the law, pay to him one-half of the original cost of the wall. He therefore sued the lady for the amount which Kedzie had paid to her, and sued Mr. Kedzie for the difference between this amount and $1,800, one-half of $3,600, the original cost of the wall. The cases went from one court to another and finally landed in the Supreme Court. That body has recently given its decision. It sustains in every point Mr. Holden's claim and he has recovered $1,800. The case itself involves only a trifling amount of money, but it establishes a precedent which may prove troublesome for a good many property owners who own ground in the business center. As a matter of fact a great deal of propety on which party walls rest has been transferred without any mention of the walls, and it is perfectly possible for the owners who originally built such walls to recover the amount of their cost from parties who are now using them. Another interesting feature about party walls which is not as generally understood as it ought to be is that to all intents and purposes they are an incumbrance upon property. If a sale is made of a piece of ground upon which a party wall rests, wholly or partially, and if no mention is made of the party wall in the contract of sale, the purchaser, even if he has signed the contract, may throw it up on the ground that there was an incumbrance upon the property of which he was ignorant and withdraw from the transaction. The contract is not binding unless it is made subject to the party wall agreement, provided always that some part of such a wall rests upon some part of the property.—*Herald, September 27, 1891.*

A FIRE PROTECTIVE DEVICE FOR BUILDINGS.

Mr. Alexander Sinclair, manager of the Glasgow *Herald*, has devised a scheme at once simple and effective for drenching roofs and exposed windows instantaneously and keeping them under flowing water for an indefinite time. An ample supply of stored water is always kept at command. By the agency of a force-pump, which works automatically, the water is forced to the roofs, along the highest part or rigging of which, and also over all the windows, are carried malleable iron pipes, finished with zinc to prevent rusting and perforated every 3 inches to 18 B. w. g. In a few seconds after the water has been turned on the roofs and windows are drenched by an unbroken stream, and this may be maintained for any length of time, the 6,500 gallons in store being renewed as the flow proceeds. When the water has been turned off the pipes are run absolutely dry, so as to avoid the risk of freezing in cold weather. The roof-drenchers are used periodically to keep them at all times in perfect working order. So far as we are aware, no such method exists elsewhere of rendering fireproof the outsides of buildings, where, as our own experience has shown, the danger of borrowing a conflagration from one's neighbours is greatest. The roof-drenchers have been subjected to a practical test in presence of Lord Dean of Guild Guthrie Smith, Mr. White, master of works; ex-Deacon Convener Mason; Mr. William Ure; Mr. David Dunlop, district manager of the Palatine Insurance Company; Mr. D. L. Laidlaw, general manager of the North British and Mercantile Insurance Company, etc. At the close the Dean of Guild, Mr. White, and the other gentlemen expressed to Mr. Sinclair the greatest satisfaction with the results of the experiments. This system of roof-drenching, it may be added, has not been patented

USEFUL HINTS.

Pencil tracings cannot be affected by acids. There is no solution or agent known to science which can dissolve pine carbon or its equivalent, plumbago, of which lead pencils are composed.

With all our admiration for shingled houses and with the new ideas that our architects are constantly picking up in their tours in foreign parts, it is rather surprising that none of us have seen fit to adopt a fashion in shingling that is very prevalent in the Swiss villages. Tiny wood, no thicker than a cigar box, and no over two inches wide, cut at the base into half circles, points or semi-octagons, covering the side of the house in shingle fashion, seem almost a coating of fish scales, so tiny they are. Nor is this illusion diminished by the fact that they are made of the whitest kind of fir or cedar wood, which takes on a still more silvery lustre by exposure to the frost-laden air of the Alpine heights, for never by any change do they paint these mites of shingles. They are fastened on by tiny tacks, and are very rapidly put up by the dexterous workmen, accustomed to the almost miniature carpentry of this paradise of wood carvers.

MUNICIPAL DEPARTMENT.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

The Kentucky Court of Appeals held, in the recent case of The Commonwealth vs. City of Frankfort, that a city has no power to grant to a railroad company the right to construct and operate a railway through its streets and alleys, unless it was expressly authorized to do so either by its own charter or the charter of the railroad company.

Ellen Cassidy v. City of Belleville and George W. Palmer was an action for damages for injury from a fall on the market steps. The defendant Palmer is the lessee of the market. Under his agreement his duty is to keep the approaches to the market clear of ice. The plaintiff alleges that she, when going into the butter market, fell because of the ice on the platform, and sustained severe injuries. Judgment for $600 against the city and $50 against Mr. Palmer.

TOWN OF BARRIE ET AL V. WEAYMOUTH.— Judgment on appeal by the plaintiffs from an order of one of the judges at Barrie, made on the application of the defendant, striking out the name of the municipal corporation of the town of Barrie as plaintiffs and requiring the plaintiff's solicitors to pay costs. The learned Chief Justice holds that, being a corporation, the town must necessarily appear by attorney, and such attorney can be appointed only by an instrument under the seal of the corporation, which has not been done in the present case. Appeal dismissed, but without costs.

THE COLLECTION OF WATER SUPPLIES.

According to a paper read before the Liverpool Engineering Society by A. W. Brightmore, Assoc. M. Inst. C. E., the conditions permitting the use of surface waters are that the drainage area above the point whence the supply is drawn shall be reasonably free from sewage or other contamminating influences. Although water that contains a certain amount of sewage may be drunk for long periods with impunity, in case of such epidmics as typhus or cholera occuring in the districts draining into the streams, the effect even after filteration might be to cause a spread of the outbreak among the consumers. The oxidation of the suspended organic matters caused by the flow of the stream and the slow precipitation of sediment has a purifying tendency, but of uncertain amount. It is true that in sand filtration, especially after the filter has been at work for a short time, the proportion of the bacteria previously existing in the water is reduced, and, moreover, the sand has a chemical as well as a mechanical effect in purifying the water.

After finding by chemical and microscopical tests that the water is free from organic and mineral impurities and after showing that it can be conducted to the town without undue expense, the next question is to ascertain the quantity available, by estimating the discharge of the stream over as long periods as possible, and comparing these with the rainfall of the drainage area for the same periods of time, in order to find what proportion of the rainfall may be assumed to pass off in the stream. Mr. John Evans gives as the result of thirty years' experiment, 6½ inches as passing through 3 feet of soil covered with grass, with an average rainfall of 27.8 inches. But in a dry period of three years with an average rainfall of only 22 inches, but 3½ inches flowed away. Sir John Lawes and Dr. Gilbert state as the result of twenty years' experiments, that through 5 feet of surface soil 14 inches percolated with an average rainfall of 20 inches, but in this case the soil was kept free from vegetation. With a rainfall of only 22 inches the amount of percolation was reduced in the same gauge to 9.5 inches.

For the evaporation to be small, the rain must find its way rapidly into the stream which would happen with a very pervious or a very impervious strata In these cases the time allowed for evaporation to take place with a maximum exposed surface would be minimized, and the smaller the amount of vegetation the less would be the loss from that cause. When the surface of saturation is near the surface of the ground, evaporation still takes place after percolation through the surface, but this is counterbalanced by the fact that moisture is absorbed by the ground from the damp air without actual rainfall.

If the supply is satisfactory as regards quality and quantity, the cheapest method of getting the water to the town to be supplied is next to be considered. The water would be either allowed to gravitate if the town were sufficiently below the level of the stream or have to be pumped if the town were above the level.

If the river bank consists of sand or gravel the water may be very cheaply filtered by laying unjointed pipes covered with gravel in the the bank in order to let the water percolate into the pipes before being admitted to the tank or well for either gravitating or pumping to the town to be supplied. The supply of Oxford is taken out of the gravel through which the river runs, and the London Water Companies find good clear water in the grav-