



BRICK PAVING IN ONTARIO.

THE third annual report of the Ontario Bureau of Mines recently published contains the following on this subject :

So far as is known, only two places in Ontario have made use of brick as a paving material. One of these is the town of Chatham, where in 1890 a brick pavement was laid down on King street, from the Rankin House almost to the Garner House, the busiest part of the main thoroughfare. The bricks were purchased from local brickmakers and were made from clay adjoining the town. They were not burnt hard enough for durability but the pavement is in fairly good shape yet, and all are agreed that brick is the material for Chatham, provided suitable clay could be got and the brickmakers there had the proper appliances for burning it. The other place where vitrified bricks have been put down is Toronto, and to those who have not watched local affairs closely it may be news that there are four miles of streets in this city paved with vitrified brick, all of which were laid down last year. The following are the streets : Dundas street from the bend to Lansdowne avenue ; Lansdowne avenue from Dundas to College ; College from Lansdowne avenue to Bathurst ; Bathurst from Queen to Bloor. The pavement is between the street car rails only. The bricks of which it is composed are all imported from the United States, partly from Massilon, Ohio, and partly from Canton, Ohio. The foundation is a bed of concrete, on which is laid a cushion of sand one inch in thickness, and on this the brick are placed at edge at right angles to the kerb. They are laid as close to one another as possible, and the interstices are completely filled with paving pitch or Portland cement. Pitch is used on Bathurst street between College and Queen, and on College street between Bathurst and Dufferin, and cement on the remainder of the pavement. The cost of paving brick laid down in Toronto is from \$20 to \$23 per thousand, made up as follows : price at place of manufacture per thousand, \$9 to \$10.50, freight \$9 and duty \$3. It takes from 60 to 64 bricks to lay a square yard of pavement, allowing for breakages. The brick pavements in Toronto having been down scarcely a year do not afford data for a conclusion as to their durability ; we expect them to be yet practically uninjured and as good as when laid down. This on examination we find to be the case, and although, owing to the pavement being between the car rails only and thus by its position as well as by its smoothness offering a double inducement to vehicles of all kinds, it has received more than its fair share of travel, the only visible mark of wear is a slight

rounding off of the edges of the bricks. The comparative cost of the various kinds of pavement used in Toronto is as follows, including foundations :

	Per sq. yard.
Cedar block on 6-in. sand.....	\$.75
Cedar block, on 2 layers of 1-in. boards, with tar composition.....	1.30
Cedar block, on 6-in. concrete.....	1.50
Light asphalt, 4-in. concrete, 2-in. asphalt..	2.10
Vitrified brick, on 4-in. concrete.....	2.25
Heavy asphalt, 6-in. concrete, 2½-in. asphalt.....	2.60
Granite sets on 6-in. concrete.....	3.85
Scoria blocks on 6-in. concrete.....	4.00

The city authorities are very favorable to the use of brick as a paving material, considering it suitable for traffic of any kind, whether heavy or light. If good paving bricks were made here and sold for the same price as that charged by the United States manufacturers in their own markets, a saving of from 65 to 75 cents per square yard over present cost could be effected, which would reduce the cost of brick pavement to practically that of cedar blocks. In such a state of affairs there would be no choice between the two kinds of pavement. The inodorous, bumpy, short lived block would disappear forever, before the clean, smooth, warm-colored and durable brick. There are miles of cedar block pavements in Toronto which are approaching the point when they must either be renewed or replaced by some better material. It would be a calamity if cedar blocks were again laid to furnish a repetition of the nuisance which this kind of pavement becomes in its unlovely old age ; while on the other hand, a public benefit of no mean kind would be conferred by replacing them with smooth, lasting and sanitary brick roadways.

SEWER VENTILATION.

A discussion is going on in the English papers as to the advantages and disadvantages of ventilating sewers directly into the street, by perforated manhole covers ; and, as our city sewer departments appear to be just now possessed with a mania for this kind of ventilation, it is worth while to call attention to some of the English views of the matter. It is rather curious that, on the whole, the practical men, such as health officers and city engineers, seem to be opposed to indiscriminate ventilation of sewers into the streets, or propose to modify the system in some way, while the theorists and writers advocate its utmost extension, in its most unmitigated form. There is no doubt that plenty of fresh air will destroy the microbes that are carried through sewage ; but the question is whether the danger that some may escape alive from the sewer manholes, and do harm, where these are situated in close proximity to houses, does not counterbalance the advantage of free aeration. We have ourselves known, says the American Architect, of one or more cases of diphtheria, in Boston, which could be traced to no more probable cause than the superabundance of ventilation allotted to the sewers in the neighborhood ; and the medical health officer of the town of Fulham, in England, reports that out of two hundred and thirty-one cases of diphtheria occurring in his district within a given period, ninety-six, or about forty-two

per cent., were in houses situated within ten yards of a sewer-ventilator. With a reasonable allowance for additional cases, in which the patients were infected by inhaling the air from sewer-ventilators situated at a distance from their dwellings, a very strong case is made out against the exposure of the contents of sewers to the air of crowded streets during a diphtheria epidemic. One English city engineer, impressed with these considerations, writes that he has fitted filters of cotton wool to all the sewer-ventilators within his jurisdiction ; and simple as it is, this precaution is an excellent one. With ventilated sewers, Dr. Rauch's successful plan for checking a diphtheria and scarlet fever epidemic, by burning sulphur in the sewers, could not be carried out ; but his idea was an excellent one, and it is possible that something of the same kind might be done by flushing the sewers in the seaboard cities by electrolyzed sea-water, which certainly has a powerful effect in destroying the germs of disease.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

SHANNON V. CITY OF TORONTO.— Judgment on appeal by Robert Carroll from order of MacMahon, J., in Chambers allowing appeal from order of Master in Chambers upon summary trial of an interpleader issue, and holding that appellant, was not entitled to money in question, \$244. Carroll claimed the money under an agreement with one Booth, who had a contract with defendants, and Booth gave to plaintiffs and Tomlinson and Son orders upon defendants for contract money. The court held that the right of Carroll to fund in hand of defendants must be treated as postponed to rights of plaintiffs and Tomlinson and Son, whose claims, together with cost of proceedings, must be first paid out of fund ; but that the verbal assignment to Carroll being good as against Booth, the balance, if any in the hands of defendants must be paid to Carroll, and Booth must pay Carroll's costs of proceedings, including the present and former appeal. Order accordingly.

Re Township of Mersea and Township of Rochester ; re Township of Gosfield North and Township of Rochester.— Judgment on appeal by township of Rochester from report or decision of Mr. Britton, referee under the Drainage Trials Act, 1891, allowing appeals by townships Mersea and Gosfield North from report of Joseph Tierman, civil engineer, upon the repair of the river Ruscom drain and Silver Creek branch thereof in the township of Rochester and finding that the assessments against Mersea and Gosfield were illegal and void, and restraining Rochester from proceeding with the proposed repairs, Haggarty, C. J. O., and MacLennan, J. A., held that appeal should be dismissed on merits and referee had jurisdiction. Burton and Osler, J. J. A., held that the referee had no jurisdiction, and appeal should be allowed on that ground. Burton, J. A., expressed no opinion as to the merits. Osler, J. A., agreed with the referee as to the merits. In result appeal dismissed with cost.