

MUNICIPAL DEPARTMENT

HOUSE SANITATION.

In an elaborate paper on "Origins of Sanitation," by Dr. J. Spottiswoode Cameron, medical officer of health to the city of Leeds, &c., delivered at the recent Congress of the British Institute of Public Health at Hull, the author goes back to the earlier conditions of sanitation and the prevention of disease. Remedial measures were at one time regarded as the main source. Even pathology was looked upon mainly as morbid anatomy—the classification of disease; but after a time medicine began to look "rather to the causing than to the resulting factors as the basis of classification." Dr. Cameron shows that, though the countryman might have an immense advantage over the denizen of the town, he was not free from various complaints, such as ague from his undrained land, outbreaks of fever from polluted water, and many other things. It was in the towns that the necessity of sanitation was first recognised. A class of maladies, such as relapsing fever, typhus fever and small-pox, flourished best in crowded neighborhoods. Overcrowding and foul air, polluted drinking water, were conditions favourable to disease other than zymotic. Speaking more particularly of accumulations of spent matters and house drainage, the author referred to the old fashioned cesspool as a source of danger. "Nor was the danger greatly, if at all, lessened when the idea was suggested of placing traps in the course of drains to intercept effluvia generated in the sewer. These traps, it was soon found, were themselves effluvia producers close at hand, and a system of relieving all pressure in our drains, and disconnecting all house wastes from them, as well as of rapidly removing all solid accumulations, came to be regarded as essential to the well-being of a community." The separation of the sick in properly equipped hospitals and the notification of the existence of communicable diseases soon followed. After sketching the progress in sanitary legislation, the mapping out of the country into districts for health purposes, the obstruction offered by members of local boards, the employment of inspectors, and the desirability of a systematic examination of districts imposed by the Local Government Board, Dr. Cameron speaks of the importance of the Notification Act, which enables medical officers to give notice to the authorities in case of any communicable disease. This Act has enabled many serious sanitary defects to be discovered, and the author mentions that in one town every house is systematically examined, the number of occupants, of rooms, means of ventilating them, the water supply, drainage, &c., are all inquired into and tabulated, and he asserts that, without

claiming the whole or chief part of the health improvement to be due to such examination, the yearly death-rate, which had averaged for the five years preceding this house-to-house visitation 22.3, has averaged during the last five years only 18.6, an improvement of more than 10 per cent. He also dwells on the fact that many new houses built under by-laws and inspected are yet faulty. In some cases, houses are found which still have connection with the sewer, even when every waste-pipe is supposed to be cut off from the sewer. A strong-smelling chemical introduced into the sewer penetrated one house of a row of new houses built under modern by-laws and inspected. But thousands of our houses have wastes which are not disconnected with the sewer. In a recent examination in the outskirts of a large town, of recent erections, two-thirds had their wastes cut off and the other third not, and he found that the smell of a chemical entered the house through the drains in 18 per cent. of the former and in 60 per cent. of the latter. These facts all indicate—as he pointed out—that even modern by-laws, carefully carried out under able inspectors, will not necessarily guarantee, a few years later, the healthiness of a house.

BRICK-DUST MORTAR.

The use of brick-dust mortar as a substitute for hydraulic cement, where the latter cannot be obtained, is now recommended on the best engineering authority; experiments made with mixtures of brick dust and quicklime showing that blocks of $\frac{1}{2}$ in. in thickness, after immersion in water for four months, bore without crushing, crumbling or splitting, a pressure of 1,500 lbs. per square inch. It is considered, too, that the addition of even as small a proportion as one-tenth as much brick-dust as sand to ordinary mortar is preventive of the disintegration so often characterizing mortars used in the masonry of public works. The use of brick-dust mixed with lime and sand is said to be generally and successfully practiced in the Spanish dominions, and is stated to be in all respects superior to the best Rosendale hydraulic cement in the construction of culverts, drains, tanks or cisterns, and even roofs, whether for setting flat tiles or for making the usual tropical flat roof. The proportions used there in the manufacture are, approximately, one of brick-dust, one of lime, and two of sand, mixed together dry and tempered with water in the usual way.—Southern Architect.

MANUFACTURE OF PAVING BLOCKS.

A new industry has recently been started in Norfolk, Va., says the *Manufacturers' Record*. It is a plant for the manufacture of paving blocks out of fibers of grass growing on salt water marshes. The grass is subjected to a heavy pressure, and large square blocks come out of the press, when the three circular saws take hold of the blocks and cut them into smaller blocks of about $5\frac{1}{2}$ inches thick, provided lengthwise with strong wire.

These blocks are then subjected to a bath in three different tanks of different kinds of oil, which makes the fibre supple. These blocks have been tested for paving purposes in Philadelphia for over a year on one of the busiest streets near the stock yards, and have, it is said, stood the test remarkably well. They make a smooth, noiseless pavement on which it is claimed horses cannot slip. Large contracts for these paving blocks have been secured in Pittsburg and New York. This plant, as now established, turns out about four hundred or five hundred yards per day of this paving, and the owners expect to soon enlarge it considerably.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

BRYCE v. TOWN OF WOODSTOCK.—Judgment in action for damages, tried at Woodstock, without a jury, brought by plaintiff against the Town of Woodstock, and defendant Hicks, who owns and drives an omnibus there. The plaintiff was thrown out of the bus by reason of its running against boulders, at corner of Main and Finkle streets. The learned Judge finds that there was reasonable excuse for want of notice to the corporation, required to be given by the Ontario municipal act, 1894. He visited the place where the accident occurred, the better to understand the evidence, and is of opinion that the stones in question were an obstruction amounting to non-repair of the highway. He finds that there was no negligence on part of defendant Hicks, and knows of no principle by which the town can be ordered to pay their co-defendant's costs. Action dismissed, as against defendant Hicks, with costs to be paid by plaintiff. Judgment in favor of plaintiff against the town for \$375 and full costs of action.

In the village of Huntsville, Ont., a local merchant has been fined for selling a paper of pins after the hour fixed in the early closing by-law of the municipality, and the case will be brought before the higher courts to test the legality of the proceeding. Even with all the uncertainties of the law it is fairly certain, says the *Montreal Gazette*, that the by-law will be declared in restraint of trade and out of the power of the municipality to enforce. The early closing by-laws are based on a mistake.

It is stated that Waukegan, Ill., is about to try the experiment of a fire protective system without the use of water. A company has been organized and the plan is to construct underground pipe lines to distribute carbon dioxide to warehouses, and to buildings of every description. In case of fire the action of the apparatus is automatic, and it is claimed that the gas, while extinguishing the fire in its incipency, will not harm the most delicate of fabrics. This would have the tendency to eliminate water damage, which in most cases is much greater than that by fire, and lessen the cost of fire insurance very materially—if it works as well as its promoters evidently think it will.