

MUNICIPAL DEPARTMENT

THE SANITARY CONDITIONS OF TOWNS AND DWELLINGS.

The following resolutions relating to the sanitary conditions of towns and dwellings, which were prepared by Prof. Corfield at the request of the Organizing Committee of the International Congress of Hygiene and Demography, held at Buda-Pest in 1894, have been adopted by the international congress at Madrid.—

(1.) That the general health of the population is improved and the spread of diseases prevented in towns and dwellings by the immediate removal of all foul matters, and by a copious supply of pure water.

(2.) That the paving of streets should be smooth, and as far as practicable, impervious, to facilitate cleansing and also to prevent contamination of the subsoil.

(3.) Special measures should be taken in the construction of houses to prevent the access of ground-air and moisture to the floors and walls.

(4.) House drains should be arranged so as to avoid stagnation of their contents and to secure a rapid flow to the street sewer. They should be impervious to liquids and gases, freely and continuously ventilated, and provided with syphon traps to prevent the access of foul air to the houses.

(5.) The public sewers should be so constructed as to secure the rapid and uninterrupted flow of the sewage to their outlets. They should always be freely ventilated.

(6.) The streets should be as wide as possible in proportion to the height of the houses; this proportion should be fixed in each locality, regard being had to local circumstances and to climate.

Every inhabited building should be well lighted throughout its whole depth, and arranged so as to have an access of air from at least two sides.

(7.) Special regulations should be made in each locality by the public authorities, with the view of enforcing the practical application of the principles herein laid down.

Governments and municipalities should resolutely and energetically carry out the preceding recommendations, especially those concerning the healthiness of dwellings.

The committee consisted of the following gentlemen: Prof. Corfield, London; Dr. Pistor, Berlin; Herr Andreas Meijer, chief engineer of Hamburg; M. G. Bechman, ingenieur en chef des ponts et chaussées, Paris; Prof. Fodor Budapest; Mr. Arthur Cates, architect, London; Herr Berger, chief architect, Vienna; Herr Lindley, engineer, Frankfurt-on-Main; and Dr. A. J. Martin, member of the Consultative Committee of Public Hygiene of France.

FLUSHING PIPE SEWERS.

In a paper on the above subject by Mr. H. N. Ogden, jr., M. Am. Soc. C.E., the following conclusions were reached as the result of extensive enquiry:

(1) Flushing of some sort is required at the upper end of laterals, the frequency and the amount depending on the number of house connections, on the carefulness or prodigality in the use of water by the householder, on the grade and size of the sewer, on the character of its construction, and on a mysterious something which defies definition, but which produces frequent accumulations in one line and does not affect another, apparently like the first.

(2) This variety in the conditions prevents any exact statement of a relation between the quantity of water which should be discharged from a flush-tank and the grade of a sewer, but it plainly indicates that the value of automatic flush-tanks lies in a general guarantee of insurance against accumulations in the upper part of the laterals, while periodic hand-flushing must be depended on only when in charge of a responsible, indefatigable and intelligent caretaker.

(3) Judging by the experience at Ithaca, and despite the statements of other engineers, it seems to the author that on grades of less than 1% automatic flush-tanks are an economic necessity, even where water has to be paid for, the added expense of frequent hand-flushing more than off-setting the possible discharge of flush-tanks when not absolutely necessary.

(4) The volume of water discharged should not be less than 40 cu. ft., and the effect of the flush can hardly be expected to reach more than 600 to 800 ft. Below this point accumulations may occur which must be removed by hand flushing and carried on to a point where the sewage flow has the necessary transporting power.

(5) On flat lines and where obstructions occur below the influence of the flush-tank, a second flush-tank, placed about 800 ft. from the first, will be more effective than increasing the first tank to a capacity of three times its original discharge.

(6) The frequency of discharge should depend on the local conditions, but it is probable that the maximum interval depends on the practical working of the siphon, so that the usual prescription of once in 24 hours is a safe rule.

(7) If tanks are used on grades greater than 1%, 15 to 20 cubic feet give as good results as larger amounts, with the same rule as to frequency of discharge.

(8) However, economy is best served on grades above 1% by omitting flush tanks and resorting to periodic hand-flushing at such intervals as experience shows to be necessary on the different lines. In most cases semi-annual or

quarterly flushings with a hose are sufficient.

(9) On grades greater than 3% flush-tanks are unnecessary, and their installation is a waste of money.

(10) Hand-flushing should be performed and tanks discharged at night, as a flow of even an inch in a sewer offers a large resistance to the flushing action, while with a pipe flowing half full the effect of a flush tank is scarcely visible.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

CORNWALL WATERWORKS CO. v TOWN OF CORNWALL.—Judgment in action tried without a jury at Cornwall. Action to recover possession of the property and works of the plaintiffs and to obtain the value of certain stores of coal, etc., used by the defendants the town corporation, and to recover water rates down to the time the defendant town corporation took possession. The defendant town corporation paid into a bank, without order of the court, the amount fixed by an award as the compensation to be paid by them upon taking over the property and works of plaintiffs. The money was paid in to the joint credit of plaintiffs and the defendants, the Farmers' Loan and Trust Company, the mortgagees of the plaintiffs. The agent of the defendant town corporation, the defendant Strickland, obtained admission through a window. The money is still in the bank. Held, that upon the making of the award and the final passing of the by-law for raising the money required to pay for the property, the town corporation became entitled, under R. S. O. ch. 199, sec. 62, to the possession of the property. They succeeded in obtaining possession without a breach of the peace, and were entitled to hold it. *Taylor v Cole*, 3 T. R., 292; *Stroud v Kane*, 13 U. C. R., 459. The present action was brought within a few days after the time at which the amount of the award was payable, and the plaintiffs were therefore not entitled to rely upon sec. 64 of the Act, which provides for their resuming possession if the amount awarded is not paid within six months after it becomes payable under the award, and it made no difference that that period had elapsed when the case was tried. Action dismissed so far as claim to possession is concerned. Action also dismissed against defendant Strickland and defendants the Farmers' Loan and Trust Co., with costs. Judgment for plaintiffs upon the other claims against the defendant town corporation for \$777.19, with costs of the action; the defendant town corporation to be entitled to set off the costs of the issues upon which they succeeded. In order to save further question, the judgment may contain a declaration that the money in the bank is the property of the town corporation, and should be paid to them free from any claims either by plaintiffs or the defendants the company.

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