

ducted that the sewage is removed from it (changed) every twenty-four hours, I do not think we can say there is no danger from inhalation of gases from the excrementitious products and washings of persons ill with infectious diseases. I may, however, call to the attention of some who may not have noticed it, a report by Mr. Sedgwick Saunders, published some time ago in *The Lancet*. He attributes to sewer-gas, arising from the ventilators in the road-bed in some of the narrow streets of London, cases of typhoid fever and sore throats, and he "suggests an abatement of the evil by the closing of the street ventilating-gratings entirely and the erection of upright shafts, six inches in diameter, to be carried above the roofs of the adjacent houses." I am sure that it has occurred to many of us to notice the disagreeable odors that sometimes arise from the street gratings or from the unsealed traps of gullies. Sometimes, too, we are more than usually impressed with the reality of the exhalation of sewer-gas by the sight of columns of vapor arising from these gratings and gullies and rendered more visible by the condition of the atmosphere on a cold damp day; but we should bear in mind that gases proceed from the sewers even when they are not apparent to sight or smell, and that they are often accompanied by germs.

Some speak of the placing of charcoal-trays in the ventilators as a sufficient safeguard. Even were the charcoal constantly dry, sewer-gas at times makes its exit too rapidly for the charcoal to exert any action upon it. So that, however useful an adjunct charcoal may be, it cannot be considered a preventive to the injurious effects of sewer-gas.

But even were there no objections to the method of ventilating by gratings in the road-bed it is not to be relied upon in winter time. The gratings become clog-

ged or closed by ice and frozen mud.

Hence, it seems evident to me that the principle which is now being advised and adopted by leading sanitarians and architects for the safety of the individual householder in regard to his house drain ought to be advised and adopted by sanitarians and engineers for the safety of the whole community in regard to the street sewers. A four-inch pipe (C) should be carried from every house drain to the roof of the house which the drain is intended to serve, and should discharge the sewer-gas at a sufficient distance from all chimneys, windows, doors, or other openings into the house. Between this pipe and the sewer no trap should intrude. It would, in my opinion, be better to have a trap between the pipe and the house, provided that, in addition to the extension upwards from the soil-pipe (A), there is another four-inch pipe (B) forming a counter opening and allowing a current of air to circulate freely through the house-drain and its connections and vents, as described in the pamphlet before referred to and illustrated in the accompanying diagram.

If the health authorities do not wish to risk the odium of thus forcing good health upon the inmates of houses at once, they ought themselves at least to place, at the expense of the corporation, pipes at distances proportionate to the spaces measured off by the sewer-gratings, and might pass a by-law requiring that a pipe shall be connected with every new drain, or other drain that shall require to be reopened, and that within a reasonable time all drains shall be provided with them.

The desirability of some such method of disposing of the gaseous contents of sewers seems so apparent that we feel as though we should call upon municipal authorities to show cause why they do not adopt it (if we may borrow a phrase from the courts of law). Let us examine some