

land, will be sufficient to controvert any assertion to that effect.

In the village referred to, which has not within the memory of man been visited by epidemic typhoid, and in which not a single case had occurred for many years, there broke out in the year 1882 an epidemic which simultaneously attacked a large portion of the inhabitants.

About a mile from Lawson, and separated from it by the mountainous ridge of the Stockhalden, which was probably an old moraine of the glacial epoch, lies a small parallel valley, the Furtlethal. In an isolated house situated in the valley, a farmer who had just returned from a long journey, was attacked by typhoid, and within the next two months three other members of the family contracted the disease: the dejecta from the patients, together with all the house slops having been emptied into a small brook which flowed past the door.

Ten years previously it had been proven that direct connection existed between this brook and the springs on the mountain side, which supplied the village with water, and as the disease had not occurred in a single house supplied with well water, the authorities suspected that the water supply derived from the springs was infected with the disease germs, and on investigating found conditions existing as related above. In order that the connection between the brook and the springs might be proven beyond doubt, the following ingenious experiment was made: Eighteen hundredweight of salt was dissolved in water and then emptied into the brook, with the result that within a few hours the water coming from the springs was of a decidedly salty flavor. A similar experiment with two and one half tons of flour produced no result, showing that while the earth was capable of filtering the water so well that even such minute particles as wheat flour were prevented from passing through it was incapable, without the pres-

ence of air and microbes, to properly purify and oxidise it.

This remarkable case shows:

1st. That the power of mischief possessed by sewage placed beyond the action of bacteria, is enormous.

2nd. That the diffusibility of typhoid poison in water is practically infinite.

3rd. That water containing the germs of disease may not be purified by filtration through a mile of solid earth (a filter so fine as to arrest particles of wheat flour.

The moral to be drawn from the foregoing is that the greatest care should be exercised in the disposal of waste matters, and that under no circumstances should they be buried deeply under the surface of the earth.

The question will be asked, "How is decaying matter to be disposed of at the surface of the earth without creating a nuisance?" In answer to this question it may be said that as far as it applies to human excreta, two methods have been found to work successfully, viz.—the dry earth closet, the contents of which are dug into shallow trenches at regular intervals, and the septic tank system, the latter being preferable for the reasons that while it performs all the work of the dry earth closet it will also take care of all the liquid wastes from the house, and it requires little attention, while the former depends for its success upon unremitting care.

A brief explanation of the construction and operation of the septic tank system will be of value to those who are anxious to have their premises in the best possible sanitary condition, and who are willing to go to a comparatively small amount of trouble to produce the desired results.

Referring to the accompanying cut, it will be seen that a tank (fig. 1) constructed preferably of bricks or stone well bedded in cement to prevent leakage, is built at such a level as to allow the discharge pipe "D," which is of glazed tiles 4 inches in diameter,