

c. Or conveyed by pipes or otherwise into a cesspool, covered and ventilated, and at some distance from the house.

d. Bedroom slops may either be disposed of in one of these latter methods, or may be absorbed into the manure heap, if the premises be extensive enough to admit of one without danger.

In coming to the disposal of fœcal excreta, let me at the outset protest against that reeking abomination, the privy pit, that disgrace to the progressive civilization of the nineteenth century. Some of these are cemented, exerting their poisonous influence only, or mainly, on the air, others are holes in the earth, poisoning both earth, air, and water. I wish every owner of such a nuisance could have pasted over his well, and if he still persists, then I would that he could have constantly impressed on his vision also, Teale's graphic picture of a section of a house, well, and privy vault, with a man standing by the pump, quaffing, with evident gusto, what he innocently believes to be pure water.

If we have a good system of sewerage, with proper outfall, we will find that the plan of having water-closets connected with the sewer system is the most practicable one, and even where there is not any more suitable outfall than our delightful Toronto Bay, the convenience of the water-closet system will cause those who can afford it to introduce it.

In other cases the dry system should be carried out, and it is very simple if people will only have more common sense and less disgusting sentimentalism. A small house is made without any pit, and with a seat resembling the one in common use only that its upper part is hinged so as to be raised up; underneath the hole a pail or box is placed; and in the corner a box of ashes and small shovel. The inmates soon get into the way of attending to the covering with ashes. When the box is full it is lifted by the handles and emptied into a barrel or ashpit, or if practicable removal takes place with sufficient frequency to render this storage unnecessary.

And now, to return again to our sewers: now that we have handed over to them many decomposing substances, how dispose of the

gases generated thereby. In the first place the materials of which drains and sewers are constructed, their course, their slope, the construction of their joints, the course of their junctions, the facilities for flushing them, all these points must be carefully considered with a view to carrying away the decomposing and decomposable material; but these points I shall not have time now to consider.

The main subject of this paper is how to dispose of the gases necessarily generated in the sewers.

Sewer gases are now disposed of in three principal ways:—

1. In a very large number of cases they are allowed to escape into the inside of dwellings. To such an extent is this the case that some sanitarians are disposed to banish the sewer system *in toto*.

2. In some instances they are supposed to discharge through gratings in the centre of the road bed.

But in many cases they discharge at the side of the sidewalk through the traps of gullies emptied by evaporation. Examples of this may be seen at many of our corners (*e.g.*, corner of Duke and Frederick) in winter time.

The ventilating gratings of sewers are so often clogged with dirt that they are of little value in disposing of the total amount of sewer gas.

3. In a few cases the sewer gas is discharged above the house-tops. I think very little consideration will suffice to show that this is the proper method and we must use our exertions to make it general.

By referring to the diagram which I show you, you will see that this can be accomplished by extending the soil pipe up to the roof.

It would be almost satirical to say that we ought to use all endeavours to prevent the first method of disposal; and yet the vast majority of people, professional and otherwise, act as if it did not matter much.

Let us then consider how sewer gases obtain entrance into houses.

1. In some cases there is no "trap," interposed between a drain or sewer, and the air respired by the inmates of the building served by that drain or sewer, no attempt at any