

moments upon the nature of sewer gas and mention some of the more palpable and fatal effects it is capable of producing when taken into the human system. Sewer gas, or more properly sewer air, is a compound, and analytical chemists tell us that the elements of which it is composed are sulphuretted hydrogen, carburetted hydrogen, sulphide of ammonia, oxygen, nitrogen, carbonic acid gas, and organic matter. But the constituents are not always the same, nor do they always exist in the same proportion. The noxious effects of the gas are fully shown by the fact that men have dropped instantly dead while at work in the sewers of London from breathing it, and that in some instances it has found its way into bedrooms through pipes and has caused the instant death of the occupants. If in a comparatively pure state its effects, in the smallest quantities, are so exceedingly dangerous, it must under other circumstances be considered capable of doing much harm. Its known effects are when present in exceedingly minute quantities in air which is breathed a feeling of lassitude, headache, drowsiness, vomiting, while the poisonous and deleterious effects of the organic elements, which are the decaying particles of animal and vegetable matter are well known to medical men as a frightful and frequent source of many of the most fatal diseases. It is now generally admitted that sewer air can be the source or promoter of all the diseases known as zymotic, viz.: typhoid, typhus, scarlet, cerebro-spinal and malarial fevers, small-pox, measles, dysentery, cholera, cholera morbus, cholera infantum, croup, diphtheria, whooping cough, puerperal diseases and some others. Of all the elements which enter into the cause of preventable diseases the influence and effect of this poisonous air which escapes from sewers must occupy the first and most important place, and there is reason to believe that in large cities it is the source of more physical suffering and the cause of more diseases than any other one thing. Theologians tell us that the arch-enemy of the human race is his satanic majesty, but sanitarians tell us that the arch-enemy of the human race is sewer gas, and being so unanimous in according that distinction to this terrible agent, it would scarcely be safe to hesitate to agree with them. It does not always kill, but it poisons the blood and lowers the vitality of once healthy men and women. It destroys or

cripples their capacity for business or enjoyment. It robs men of ambition and women of beauty. It paves the way for specific diseases which would otherwise never have sent strong men to bed for months. It not only robs life of enjoyment, but it often renders it a burden, almost too intolerable to bear, and there are thousands suffering from its baneful effects who are entirely ignorant of the fact. It should need no argument to prove to any intelligent man that cesspools, whether open or covered, are an unmitigated nuisance and a frequent source of disease, and yet we are told on the best authority that most sewers are nothing but elongated cesspools, constantly generating poisonous gases which find a ready entrance into the houses with which they are connected. No sane man would build his house over an open cesspool, and yet in cities where there are public sewers, houses are built over or in connection with hidden cesspools, a thousand times more dangerous than one above ground. Into it empty thousands of drains, which in turn are connected by waste pipes and soil pipes with basins, kitchen sinks and water closets. Into these are deposited the waste of human bodies and the liquid waste of kitchens, laundries and lavatories. Through the waste pipes of the house this liquid filth is conveyed directly to the street sewer in which are also liquid abominations that often hold in solution matter still more objectionable. The pipes that connect a house with a sewer may perform their duty well enough as drains, but practically, they may be said to be *serviceable* as ventilating shafts for the hidden cesspool—the sewer. There is nothing about which the people of towns and cities seem to know so little as their sewage, while there is nothing relating to the comfort and healthy condition of a habitation with which any one of mature years should and might be more familiar. House drainage, an adjunct of sewage, is next in importance to the construction of the four walls of a house, but it is often the last thing that an occupant considers. If waste water runs off he is satisfied; he may even evince surprise when told it is not sufficient to know that the waste will be carried out of sight, that there should be no doubt that it reaches the sewer and that there is no leaking and spilling along the way. Every one ought to know that there should be such appliances in and about the pipes as would prevent the return of sewage