

"observed in reference to this matter that the mere evidence of smell or its absence is no indication or otherwise of danger.

"Smelling gases may be harmless, while those matters which are most pernicious are usually devoid of odor.

"It has already been pointed out that the great safeguard against the evil effect of sewer gas is dilution, only allow the gas to combine with sufficient pure air and it is harmless even if carrying the germs of disease. Evidence on this point is very conclusively shown by reference to our fever hospitals, which in bygone days when overcrowded and ill-ventilated, the death rate among patients and attendants was awful to contemplate, but since these institutions have been provided with perfect ventilation, disease seldom spreads, in fact, if an attendant contracts disease it is looked upon as sure evidence that the ventilation is defective, or in other words that the dilution of the fever poison is insufficient.

Dr. John S. Billings, U. S. A., speaking of sewer gases, says:

"These gases and odors do not produce specific diseases, but when they are distinctly present in a house, the inmates are liable to be affected with various forms of disturbed digestion, loss of appetite, slight headache, and a depressed state of vitality. * * * Upon the whole, the dangers from gases only in connection with house drainage are small, and comparatively easy to avoid, the main thing for this purpose being a complete and constant ventilation of the pipes.

"In part the dangers are due to extremely minute particles of living matter, most, if not all of which, are vegetable organisms known as bacteria. There are many different kinds of bacteria, and they have very different properties and powers, but those which concern us in this connection are those which grow and multiply in decomposing organic matters, and especially in excreta. Almost without exception these bacteria belong to species which are found in the air of streets, in all intestinal discharges, and in all putrifying matters; they are not only harmless, under all ordinary circumstances, but are highly useful in decomposing dead organic matter into simple