

would have a somewhat startling remark to make on that subject; and as for our churches it has long been decided by the architects that a sufficient quantity of fresh air is not to be obtained in them.

The medical man of to-day lives in the very midst of these abuses. He attends the churches, he lectures in the colleges, where he is poisoned by carbonic acid gas. He even goes into the school as a medical

advisor. He is permitted to vaccinate the young ladies when there is an epidemic of small-pox, and to deliver lectures upon anatomy and physiology, and here his work usually ends, but I am glad to say that it ends, not because the medical man is entirely unconscious of his true duties, but because he is not allowed to preform them.

## THE DESTRUCTION BY CREMATION OF THE GARBAGE AND REFUSE OF TOWNS AND CITIES.

EXTRACTS FROM A PAPER READ AT THE LATE MEETING, IN BROOKLYN, N. Y., OF THE AMERICAN PUBLIC HEALTH ASSOCIATION; BY DR. KILVINGTON, HEALTH COM., MINNEAPOLIS, MINN., AND CHAIRMAN OF ASSOC. COM. ON DESTRUCTION OF GARBAGE.

IN the majority of our cities, this great problem of the disposal of waste matter is still practically unsolved, and that it is so, is due, not to the absence of methods, not to the paucity of inventive skill, nor to a lack of ingenuity in devising means to this desirable end, but, in a very large measure, to official indifference and popular ignorance of sanitary essentials.....

If we do not share the fate of the ancient cities of the plains and be overtaken by no Nemesis in the way of regenerating fire and brimstone; if, like the Europe of the middle ages, we are not to be purified by the plague; if the cholera, in some of its periodic travels from its Indian home does not find a foothold upon our shores, it is simply because we are endowed with a wealth of air, of soil and of water, which permits us to violate, for a time, with seeming impunity, the laws of health.

But an end to this period of abused privilege is at hand. The characteristic feature of our economic development is the increasing concentration of people in cities, and it carries with it a menace to the public health. We can no longer leave to nature the chemistry of our waste products without danger to ourselves. She demands acreage per capita for her operations where we can afford to give her a beggarly allowance of square feet.

The refuse materials these cities have to dispose of come under seven heads: 1,

ashes; 2, garbage; 3, offal; 4, dead animals; 5, manure; 6, night-soil; 7, sewage. What becomes of them? The first item, ashes, may be dismissed with the statement that this material is commonly and wisely employed in the making of roads, the leveling of alleys, and the filling of low lots. There is nothing objectionable in this provided sufficient care be taken to keep the the ashes free from animal and vegetable waste. The three succeeding items, garbage, offal and dead animals, may be discussed in common, for they are usually subjected to the same treatment and are alike susceptible of the superior methods of disposal. But they have a widely varied destiny in different cities. (1) They are fed to domestic animals! notably to milch cows and swine; (2) Dumped into neighboring rivers, lakes or ocean; (3) Buried in many instances, outside the city limits; (4) They are rendered either by ordinary soap and grease producers or by a process known as the "Merz system"; or (5) Burned either in open fires or by means of some one or other of the several crematories now in use. Animal manure usually goes with these other materials into the water-courses; it is sometimes buried, is seldom burned, and oftener carried to the country districts and used for fertilizing in its raw form. Night-soil is occasionally composted and employed to enrich the soil; is more commonly used to improve the water supply; is once in