

to general cleanliness, the removal of filth, in the many disagreeable forms in which it has forced itself upon public attention by reason of its intrinsic power of odor or unsightliness. Such nuisances exhale powerful arguments for their own abatement, and although there is yet room for an immense amount of work to secure this removal, those who habitually resist or disregard such arguments are lower in the scale of civilization than they to whom I appeal for the restriction and prevention of communicable diseases, and in regard to other less recognized sources of disease. Some of the dangerous agents to which I wish to call your attention are the contagia of disease. These are just as real as are the evident nuisances, but they are as a rule invisible to the naked eye; and though they sometimes generate odors, they are themselves usually without odor. And yet, though their power is not evident to the unaided senses, the earth is strewn with the dead because of these disease germs, and all our paths of life are peopled with crippled victims of the many communicable diseases which we neglect to prevent or restrict.

#### NEW REQUIREMENTS AND DEFINITIONS OF CLEANLINESS.

In speaking of the greater importance in the prevention of diseases, of other work than that for the suppression of ordinary nuisances, the question has been asked if I was not forsaking the time-honored doctrine that all our ills are due to filth, and that the single word *cleanliness* expressed the whole sum and substance of general sanitation. To this I reply that very considerable progress has been made in our accurate knowledge respecting the causes of many diseases, and respecting the conditions essential to different kinds of cleanliness. To illustrate this, it may be sufficient to suggest different standards of cleanliness, as follows:—The housewife has one standard of cleanliness, which requires that a dish for the table must be thoroughly washed with soap in hot water, rinsed with clear water, and drained or wiped dry with a clean cloth. If such a clean dish be given to the chemist for his most accurate work, he may object that the dish is not chemically clean; and he will rinse it in alcohol or in a strong acid, or a strong alkali, according to the particular form of matter which he fears makes it unclean for his purposes, after which he also will pronounce it clean. If this same dish which has been made clean enough for the chemist be given to the biologist, who is experimenting on the vitality or reproduction