

J. J. Powers, Sanitary Engineer, Brooklyn, N. Y.: For Plan of Sewage Disposal Works.

C. B. Tefft, M.D., Utica, N. Y.: For Family Garbage Burner.

George H. Warner, New York: For the Engle Fire-Closet, for the cremation of garbage and other obnoxious substances.

Wells Rustless Iron Company, New York: For Rustless Wrought-Iron Steam, Gas, and Water Pipe.

The following were among other things recommended as worthy of honorable mention:

Bush Manufacturing Company, New York: For "Bovine."

Thomas Leeming & Company, New York: For Nestle's Swiss Milk and Milk Food for Infants and Invalids.

Richardson & Morgan Company, New York: For Improved Combination Heaters—Steam and Hot Water.

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## HEALTH STATISTICS—THEIR VALUE AND NATURE.

THE health of a people of a country and the average duration of human life in it should be to the Government of the country a matter of the first importance. The eminent D'Israeli was one of the first men of modern times to emphasize this. He said: To look after the health of the people is the first duty of the statesman; and in a large measure he carried into practice his strongly expressed views on this subject. It has been said that to be indifferent to, or ignorant of the laws which affect human existence, would be to make our legislators responsible for the ravages of every preventable epidemic invasion of disease. But how shall the legislators or government of a State be able to act intelligently or effectually in relation to public health? In no other way is it possible, than by an adequate knowledge of the births, marriages, deaths and the prevalence of disease, especially of epidemics, to be derived alone through uniform and careful registration.

It is just as desirable and necessary, as any one will admit, that a government should know through a record of such events, the *quality* of the people as that the quantity or numbers should be known, as by the census.

As Dr. Plunket, President of the Tennessee State Board of Health, has well said, the class of science to which the science of public hygiene belongs, is obviously the same class as medicine itself; both make disease their study, but in different ways; with the physician the question is, what will cure an ague, or mitigate a fever? With the health officer, what will prevent

them? If the physician take cognizance of prevention, it is only to advise the patient and his household what precautions they should adopt; but the care of the officer of health extends to the whole district or community threatened by the disease. The physician may advise a consumptive patient to abandon some unhealthy occupation, damp-dwelling or undrained district; the officer of health would render the occupation healthy, or drain the district dry. In a word, while cure or palliation is the aim of medicine, prevention is the object of hygiene; while the one studies the good of the unit, the other looks to the welfare of the mass. Therefore, since public hygiene deals with mankind, not one by one but in communities, it follows that its scientific method can be no other than the numerical method, which in its application we call vital statistics.

The basis of all public health work is therefore a system of health statistics, usually called vital statistics—statistics relating to life. In these are commonly included a report or record of the causes of the deaths which occur, including the age, occupation, &c., of the decedent—mortality statistics—as well as a report or record of births and marriages, and of prevailing diseases, especially of those which are epidemic or communicable. It has been stated that these last—the prevailing diseases—ought not to be regarded as statistics. But this is clearly erroneous. They cannot well be made so exact as a record of all the individual events of births, marriages and deaths, but they are none the less statistics, and may be made really