

ingly greater part of our time left for acquiring and employing really useful knowledge, and the purposes and results of scientific investigation would be understood and appreciated by a larger part of the public than is now the case.

WILLARD G. VAN NAME

NEW YORK STATE MUSEUM

AMERICAN SANITATION

TO THE EDITOR OF SCIENCE: The writer has just finished reading Dr. Ford's most interesting article on "American Sanitation," in your issue of July 2, and wishes to endorse heartily the plea therein contained for more extensive and better training in public health. The writer feels, however, that he must differ with Dr. Ford as to the wisdom of excluding all but physicians from participation in health work. Dr. Ford evidently assumes that there is no essential difference between community hygiene and personal hygiene, and that a thorough medical training, with its time-consuming studies of anatomy, histology, obstetrics, materia medica, etc., is essential before undertaking special work along the lines of sanitation, or the protection of the community from disease.

The present writer holds no brief for the ordinary engineer in positions of high responsibility in general health work, but he can not help feeling that a well-trained sanitary engineer would distinguish his incumbency of the health officership of a town, about as well as an eye and ear specialist would do. In fact, the chances are that neither would be conspicuously successful.

The ideal health officer should be neither an M.D. nor a C.E. but should be an expert in community hygiene, such expertness combining a knowledge of both branches (and some others). It should be possible for a young man desirous of entering the field of public health to secure training for that service without being compelled to undertake the study of a great many medical subjects which have to do with curative rather than with preventive medicine; and also without having to learn about highways, railways and framed struc-

tures. He should, upon completion of such a course of training, be thoroughly conversant with the causation and transmission of disease; and have enough engineering training to enable him to look upon problems in municipal sanitation with that sense of perspective which is found more highly developed among civil engineers than among physicians.

An amusing story illustrating that lack of quantitative appreciation, or perspective is vouched for by one of the writer's professional friends. A practising physician in one of our large cities sent a communication to the health commissioner in which he recommended the addition of some mild laxative to the city water to counteract the baleful effects of the coagulants applied previous to filtration. Of course, it is to be understood that this is recognized as an extreme case, but in the course of ten years' experience as a sanitary engineer, the writer has heard many decidedly puerile things said by physicians who pretended to some knowledge of sanitation.

WM. T. CARPENTER

BROOKLYN SEWAGE DISPOSAL
EXPERIMENTAL STATION

ANIMAL MALFORMATIONS

TO THE EDITOR OF SCIENCE: Referring to the communication on "a chicken with four legs" in SCIENCE, page 90, I would say, lest the malformation should be considered rare, that we have in this museum quite a number, fourteen from the chicken alone, showing various degrees of the malformation; also from the duck and turkey, and from some higher animals as the dog, pig and kitten. Technically the malformation is known as *dipygus* or preferably as *dipygus parasiticus*.

D. S. LAMB

U. S. ARMY MEDICAL MUSEUM,
WASHINGTON, D. C.

THE LONG COST OF WAR

TO THE EDITOR OF SCIENCE: The writer is interested in gathering material bearing on the eugenics of war and militarism. It is obvious that these influences tend to weaken a nation through the destruction of those physically the best and through the debarring of