The United States is the most sanitation-conscious nation in the world. As a result of this consciousness the dividends in health and welfare have been tremendous. Fulltime health departments are nearing the 2,000 mark. The death rate for typhoid fever, diarrhea, diphtheria, and other communicable diseases has been reduced more than 90 percent since 1900. The death rate for tuberculosis has been reduced 77 percent. Milk-borne epidemics are almost a thing of the past. Great progress has been made, and along with this development has been the growth of many businesses which credit their origin, expansion, and continued existence to sanitation.

Examples of these are the milk industry, the manufacturers of containers, cleansing and sterilizing agents, and equipment, the thousands of processors of foods and beverages, and a host of other industries and businesses that could never have attained present enormous proportions without the advance credited to sanitation.

However, acute knowledge of sanitation has not expanded as rapidly as the demands and the needs. The public needs and is demanding protection against unnecessary exposure to health hazards and disease. How can we, as health officials, meet this demand and further reduce our morbidity and mortality? What can we do to better the environmental conditions of the people of our own community? This is the challenge of today. How shall we meet it? It is obvious that the solution to the many problems is not simple. The accurate knowledge to give this protection is not available. Therefore, the problem calls for an extension of current efforts. It calls for orderly and consistent efforts to increase knowledge through fundamental research and the dissemination of that knowledge through education.

The challenge to the health official is much greater today than it was forty years ago when he was faced with applying the then new knowledge of bacteriology and sanitary science to the purification of water and the pasteurization of milk.

There are still wider vistas and greater problems confronting the worker in the field of public health today, and more and more as we work with these problems in environmental sanitation, we are cognizant of the lack of accurate knowledge and the need for more fundamental data.

Within the last few years this recognized need for organized research and education in the field of environmental sanitation resulted in the creation of the National Sanitation Foundation. The purpose of this Foundation is as broad as the whole field of sanitation. It is an organization, supported by gifts, grants, and bequests, where public health workers, industry, and business may combine their efforts to solve common problems. The organization of the Foundation is designed to meet its purposes and needs. The Board of Trustees is composed of six members, four of whom are actively engaged in public health. The Board consists of the following: Mr. H. William Klare, Detroit; Judge Arthur J. Lacy, Detroit; Brig.-Gen. James S. Simmons,
Dean of School of Public Health, Harvard University; Dr. Nathan Sinai, Professor of Public Health, University of Michigan, Vice-President; Dr. Henry F. Vaughan, Dean of School of Public Health, University of Michigan, President; and Mr. Walter F. Snyder, Secretary and Executive Director. No sponsor is on the Board of Trustees. This Board has the responsibility of adopting policies and programs and approving grants of funds. There are two working committees; one on Technical Research, and one on Education.

The Committee on Technical Research is composed of leading scientists in the field of sanitation. Its membership consists of Mr. A. W. Fuchs, U.S. Public Health Service, Washington, D.C.; Dr. W. L. Mallmann, Michigan State College, East Lansing; and Mr. W. D. Tiedeman, New York State Department of Health, Albany—all names which are very familiar to the milk industry. Dr. Vaughan is chairman of this committee whose functions are to review requests for research grants, to prepare recommendations to the Board relative to the need and value of new research projects, to report the progress in sanitation research, and to serve as an agency for the integration of scientific knowledge in the field of sanitation.

The functions of the Committee on Education are comparable to those of the Committee on Technical Research. It prepares recommendations to the Board on research projects, analyzes the existing knowledge and materials of education, and serves as an agency to integrate and improve the methods of education in environmental sanitation and disseminate the results of the research of the Foundation. Very often in the past there has been a great lapse of time between the release of fundamental data at its source and the assimilation and application of this knowledge by the sanitarian in the field. Whatever are the results of basic research in the sanitary sciences and in education, their values will be determined through their application by the men in the field.

The Committee on Education consists of: Dr. Ira V. Hiscock, Yale University, New Haven; Dr. Margaret Mead, American Museum of Natural History, New York; and Lewis Dodson, University of Michigan. Dr. Sinai is chairman of this committee.

The approach of the National Sanitation Foundation is to eliminate the confusion and uncoordinated efforts by bringing together the leaders in the field of sanitation—men who know sanitation—and the leaders in the industries—the heads of industries. Thus we have an organization through which the responsible people of industry and sanitation come together to solve a common problem. To this end the Foundation has created a Consulting Committee on Sanitation. The membership of this committee is composed of outstanding personnel from over the nation in the field of environmental sanitation. The membership of this committee will be announced at the American Public Health Association Meeting in Cleveland, Ohio,* where they will hold their first annual meeting. This committee will provide much technical guidance in the development and application of uniform standards of sanitation based upon a scientific research.

Since the application of this basic research is also of great importance to industry and business, an Industrial Advisory Committee has been organized. This committee, which is composed of business men selected by the sponsoring members from their own group, meets at least twice each year.

The present list of sponsors includes manufacturers of soft drinks, detergents, glasswares, dishwashing machines, silverware and chain drug companies, breweries, restaurant associations.

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ciations, equipment manufacturers, and many others. This list by no means limits the potential support of the Foundation, and many new interests are being developed monthly.

The commitments for the 1945–46 programs are in various stages of development. As progress is made in such research projects, prompt publications will be made. Progress reports and results of some of the research will be revealed by members of the technical committee at the American Public Health Association next month.

The program to date includes: a study of the various sanitary codes, an analysis of sanitary practices by the health departments, a study of public opinion regarding sanitary practices, and a study of the various methods used in the education of food handlers. The technical projects include a time and temperature study of mechanical dishwashing, a critical review of the swab-rinse test as a method of measuring the end results of utensil sanitization, and a project to determine a reliable test for detergents, and how effectively a detergent will remove soil under practical working conditions. Another project is one concerning some of the many problems involved in the use of quarternary ammonium compounds.

Tests are under way to determine the bactericidal efficiency of the various quarternary ammonium compounds against milk-borne and food-borne pathogens (such as staphylococci and salmonellas) as well as against water-borne pathogens, and to determine the bactericidal efficiency of these compounds as compared to chlorine for the sanitization of milk and food utensils. Tests will also be made to determine the toxicity of these compounds, their keeping qualities, their corrosiveness and other problems as well as the development of a suitable field test for determining the concentrations used at dairies, in restaurants, etc. It is hoped that a single test applicable to all compounds in this group can be developed. The technical projects include also another project of much interest to the milk industry. Since the development of the “high temperature-short time” process of milk pasteurization, there has existed a need for a standard method for determining the holding time in this type of pasteurizer. Until now no satisfactory method has been developed. The method most used, one with which most of you are familiar, is to introduce a salt solution into the flow of water up stream from the holding chamber. This is done by placing an electrode at each end of the chamber with the electrodes connected to a potentiometer. This test is unsatisfactory, not only due to the fact that it has to be conducted with water instead of milk during routine operation, but there are many other variables that enter into the test. The concentration and amount of salt solution, the point of introduction of the solution, the size and type of electrodes, and the sensitivity of the potentiometer are all varied by every tester. How much these variations in technique affect the accuracy of the test is not known, neither is there any information available of the relationship of the salt method of testing to the actual holding time of the various microorganisms that may be in the milk. This problem is one of interest to industry as well as health officials. Without this information industry cannot properly design the different units, nor can health officials give assurance that the units tested are safe from a public health standpoint.

The members of the Technical Committee of the National Sanitation Foundation, realizing the importance of this problem, recommended to the Board of Trustees that consideration be given to this research. As a result a grant has been made, and very shortly there will be under way at Cornell University a research project “to investigate present methods and to standardize a preferred method for determining the holding time of high temperature-short time pasteurizers.”
Here again we find a condition that has long existed and one that is prevalent today. Here is a method, like many of our new and modern methods that being adopted by industry and various new units will be placed into operation as rapidly as they can be manufactured.

Many health officials will be called upon to pass judgment on this and other new equipment. Often these officials have had no experience with the equipment in question. Forced to make a decision without satisfactory information and with no place to turn for factual data, the sanitarian must base his recommendations upon opinions. We all know that opinions, however honest, are still opinions, and not altogether trustworthy.

So here again, as in other research that the National Sanitation Foundation is sponsoring, an effort is being made to determine the facts upon which to base recommendations that will be acceptable and usable by health officers and a guide to industry throughout the nation.

The purpose, the method and the organization of the Foundation are intended to increase and extend knowledge. But equally important, the Foundation serves as a common meeting ground where public health, industry, and business meet to define and solve common issues in the interests of the public welfare.

The health worker in the field on environmental sanitation has in the Foundation a definite source to turn for the much needed answers to some of his many problems; also here is an organization that he can recommend to industry in their search for the answers to mutual questions.

The application of the available knowledge and sound public health practices have done much to aid the health worker toward his goal. In the National Sanitation Foundation health men have an additional tool to aid them in their endeavors.

Much progress has been made since the forming of the organization. The active enthusiastic support of the sanitation personnel of the nation and the continued participation of industries and business in sanitation will make far-reaching advances toward a mutual goal, a goal that in accordance with the articles of incorporation, is the first obligation of the Foundation, namely: "The educational, scientific and charitable purpose of promoting progress and betterment in environmental sanitation, health, and education of and for mankind."

A SURVEY OF THE DIRECT MICROSCOPIC METHOD OF EXAMINING MILK AND CREAM SAMPLES IN APPROVED AND REGISTERED LABORATORIES OF CONNECTICUT

(Continued from page 29)

those laboratories are to follow the recommended procedure.

SUMMARY

This survey of the work of the 14 approved and registered laboratories in Connecticut that make use of the direct microscopic method of examining milk indicates that this procedure is not followed uniformly in this state to the extent desirable. The results of this study indicate that more effective use of this method would be attained if provisions were made for prompt following up of laboratory examinations by inspectors. This is particularly important since this method when properly used permits more rapid and more specifically directed follow up of undesirable conditions and practices than do other bacteriological methods of control.