

partment. A survey made last year by the county sanitary engineer indicated that such pools in Suffolk County were open to the air and operated only during the summer months. Only 6 pools were found, all located on the south shore, adjacent to public bathing places and operated on the draw and fill method.

These pools were carefully inspected, visits being made on hot Sundays when the bathing was at its maximum peak. As no purification or disinfection process was being used, particular emphasis was laid on the bacterial quality of the water. The sources of supply of the water were carefully examined, and all except one were found to be satisfactory. The results of analyses of samples collected from the pools, with the exception of the last mentioned, showed a bacterial quality above the standard re-

quired by the *Code*. This last pool was slightly below the standard, due undoubtedly to the somewhat unsatisfactory source of the water. A special effort will be made before this pool opens this year to have the quality of the water improved either by disinfection or changing the source to wells or some other satisfactory method. A special permit or license is required for the operation of these pools.

In concluding this subject, it might be added that the particular problems mentioned would be somewhat different in other counties, but it is the duty of the county sanitary engineer, trained in the broad principles of sanitation laid down by the State Health Department, to apply these principles toward the solving of the particular problems in his jurisdiction.

DISCUSSION

JAMES L. BARRON

Director, Division of Sanitation, Westchester County Department of Health, White Plains, N. Y.

MR. COOK'S paper presents an excellent review of the manifold functions of the sanitary engineer in a county health department. Through the engineer, and the inspectors working under his direction, many important contacts are made and services rendered to the individuals composing the population of the health district. Engineers of a state health department deal largely with municipalities and confine their activities primarily to the major problems of the water supply and the disposal of wastes. The county sanitary engineer has intimate contact with the officials of the municipalities or other governmental units within his territory and in addition renders service to smaller groups, organizations, institutions, and individ-

ual householders in numerous matters.

The sanitary engineer finds frequent opportunity to act as mediator and arbitrator between local municipalities or areas, and between various departments of the local government, where jealousies and suspicious attitudes or misunderstandings must be reconciled in order to promote a public good. There are many occasions when the differences of communities or groups of individuals with regard to matters of sanitation or conditions of environment need sympathetic and rational handling by the engineer. Such differences frequently arise over the disposition of garbage and the discharge of sewage.

Supervision of milk supplies can only be effective when all of its details are

centralized at one office. Adequate records of all sources and channels of delivery must be maintained. Inspections of dairies, shipping stations, pasteurizing and bottling plants, must be coordinated with the collection of samples and the interpretation and use of the results in the enforcement of the milk code. This work is a most important function of the sanitary engineer and it may well include the direction of a campaign for the eradication of bovine tuberculosis within the health district.

The New York *State Sanitary Code* imposes upon health officers the responsibility of issuing permits for the construction and operation of swimming pools. This is essentially an engineering job and in Westchester County where there are over 40 pools under the supervision of the County Health Department, valuable service has been rendered to the pool owners and operators in showing them how to run filters, apply chemicals, and make operating tests. In Westchester County it has been found necessary to require reports of daily operation on all swimming pools and these reports serve as the basis of the Health Officer's assurance that such pools are safe to use.

The multitude of complaints of nuisances, actual and alleged, which come to a county health department give the sanitary engineer many opportunities to exercise engineering judgment and to assist individuals in the solution of sani-

tary problems where the services of an engineer would not otherwise be obtainable. To the average householder a polluted well or a faulty private sewage disposal system presents a difficult problem, which, however, may in many cases be corrected by following recommendations of the sanitary engineer.

The health department is, in many cases, believed to have extraordinary police authority and to be capable of dealing with conditions which have no relation to public health. It has been found advisable in Westchester County to adopt a sanitary code, prepared by the engineer, which supplements the *State Sanitary Code* in many matters relating to general sanitation, foods, milk, and swimming pools. This code establishes penalties for violations, and serves to define the matters with which the health authority may deal. Experience thus far indicates that such a code is an invaluable instrument in the effective functioning of the sanitary engineer and his inspectors.

Sanitary engineering service is one of the most important to be rendered by a county health department. Obviously such service, together with many others from such a department, can be obtained only when health units are organized on the basis of a large population and taxable wealth sufficient to support trained personnel capable of administering the many phases of modern public health work.