

## DU PAGE COUNTY

O. J. Schmidt, County Sanitary Engineer  
John P. Walsh, M.D., County Health Officer

DuPage County has had considerable annoyance from pest mosquitoes. Some parts of the county are especially troubled with these mosquitoes and numerous complaints have come from these areas. Most of these breeding places are low, swampy areas usually covered with heavy underbrush.

The DuPage County Health Department has recognized the need for a program of mosquito control through filling and draining low, swampy areas which constitute mosquito breeding places. Some of our fighting men are now in malaria infested lands and undoubtedly many will return with the parasite in their blood streams. Since the presence of the anopheles mosquito in this area has been recognized for some time, conditions for the spread of malaria are almost ideal; all that is lacking being an infected populace. That link may be completed with the return of these men, creating a reservoir of infection, then an infected mosquito population, and finally the spread of malaria in epidemic form.

The current outbreak of poliomyelitis in the Chicago area has resulted in further studies to determine the possibility of the mosquito as a vector in the spread of this disease. If this proves to be the case then indeed an intensive program on mosquito abatement will become one of the most important features of the public health program now being carried on in DuPage County.

## MALARIA CONTROL IN MARYLAND

By Dr. Ernest N. Cory  
State Entomologist

A Malaria Control in War Areas Project has been set up in Maryland, operating under the direction of the State Department of Health jointly with the United States Public Health Service. The project is for the purpose of controlling the breeding of "quads," to reduce potential malaria transmission in "extra-cantonment zones" of military reservations and in essential war industrial areas.

The project is under the direction of Mr. George L. Hall, Chief Engineer of the State Department of Health, with Mr. Francis A. Jacocks as Assistant Director. The entomological work is being carried on by Mr. George B. Vogt. Dr. E. N. Cory, State Entomologist, Department of Entomology, University of Maryland, is acting in a consulting capacity on the entomological phases of the work.

One of the interesting phases of the project relates to the control of the *Anopheles quadrimaculatus* in those areas of the Potomac River infested by the water chestnut. Since Virginia and the District of Columbia, as well as Maryland, are vitally interested in this aspect of the program, control operations in the River are being carried on under the direction of a separate unit which functions under the Headquarters Office in Atlanta, Georgia.

## HIGHLAND PARK, ILLINOIS

By George B. Dana, Chairman of the Board  
Highland Park Mosquito Abatement District

The Highland Park Mosquito Abatement District comprising the areas of Deerfield, Bannockburn, Highwood and Highland Park, about eighteen acres in extent has just completed its thirteenth season of operation.

Ditches and ravines which drain the territory have been deepened, widened and cleared of weeds. Stagnant pools and depressed areas have been sprayed with crude oil after each heavy rainfall.

Our district is unique in that it contains the spacious Park where the Ravinia Outdoor Opera renders its Annual Music Festival. These open air concerts given during July and August attract thousands of music lovers. We were informed by many visitors as well as by the management that annoyance there from mosquitoes has been much less than usual, really almost non-existent.

The extensive U. S. Army Post of Fort Sheridan bounds our district on the north. We made inquiry to the Medical Branch of this the Sixth Service Command regarding what measures were being taken to prevent the spread of malarial infection through men returned here from infected foreign areas. In reply the Surgeon General U.S.P.H.S. informed us of the meticulous care exercised by the Army Medical Branch through rigid quarantine and frequent blood tests to see that all such cases are free of infection before leaving their Army Post.

Nevertheless the frequent shifts of civilian and military population due to the war effort has made our work here increasingly important. We hope to continue and expand it next year as much as our funds permit.

Highland Park, Illinois,  
November 6th, 1943.

GEORGE B. DANA,  
President of the Board.

## DEVELOPMENTS IN MOSQUITO CONTROL

### UNDERGROUND DRAINAGE FOR MALARIA CONTROL

By Nelson H. Rector, Sanitary Engineer (R)

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From Monthly Report of Malaria Control in War Areas  
U. S. Public Health Service, Atlanta, Georgia

Underground drainage for malaria control was used by Le Prince and Gorgas in Panama more than 30 years ago. Their drainage systems were constructed of tile laid in narrow contour trenches and covered with broken stone. The trenches were completely filled with broken stone without an earth backfill so that they could carry some surface water. Large stone was placed in the bottom of the ditch and smaller stone in the top layer at the ground surface. To prevent the deposition of impervious material in the voids between the stones, the spoil was placed on the downhill side of the trench.

Satisfactory underground drainage may be constructed of brickbats, rock, gravel, tile or poles covered by a layer of leaves, straw or other filter material and backfilled with earth. Properly constructed drains of this type are inexpensive to install and require little or no maintenance. Some systems have been reported to be giving satisfactory service after more than 50 years of use. Underground drainage as a factor in malaria control is gaining widespread recognition; it has been proved to be one of the most effective methods for permanently eliminating Anopheles breeding places caused by seepage.

Seepage outcrops are caused by a change in permeability of the soil; e.g., a sandy loam topsoil underlain by a clay subsoil. Water flowing through the loam is arrested by the clay subsoil and must flow along this more impervious stratum until it reaches an outcrop on a hillside, stream bank or used in larvicidal control and about 750,000 lineal feet of ditching was completed. During that month, 46 major drainage projects were in operation in 14 states and nearly 20 miles of new ditches were constructed. That Service has carried on a considerable amount of underground drainage such as that used in Panama by LePrince and Gorgas more than 30 years ago. The drainage systems consist of land tile laid in contour trenches on crushed stone of comparatively large size and covered with broken stone of smaller size. The latter is not covered with an earth backfill so that some surface water in