

lapse rate at first was about one-fourth that of the combined fever and chemical group. A number of severe reactions, however, made it necessary to modify this treatment also. The interval since has been too short to allow any conclusion about the 280 treated by the modified method.

Chief advantage of the new methods of treatment is that, with few exceptions, the patients complete the course of treatment. Under the old scheme of syphilis treatment, requiring weekly visits to doctor or clinic for 18 months, many patients failed to finish the course. They not only were not cured themselves but continued to be dangerous to others.

Gonorrhea as well as syphilis is treated at the Center, sulfathiazole, with fever treatment when necessary, being used.

The Chicago Intensive Treatment Center is operated under grants from the Federal Works Agency, the U. S. Public Health Service, the State of Illinois and the Chicago City Council. This report of its first year of operation is made by Dr. Herman N. Bundesen, president of the Chicago Board of Health; Dr. Theodore J. Bauer, U. S. Public Health Service, venereal disease control officer for Chicago; Dr. H. Worley Kendell, U. S. Public Health Service, director of the Center and one of the originators of the one-day, combined fever and chemical treatment of syphilis; and Dr. R. M. Craig, Dr. G. X. Schwemlein, E. C. Sittler, Dr. M. F. Steves, Dr. E. A. Strakosch, Dr. A. A. Rodriguez, Dr. N. D. Shaw, Dr. Jack Rodriguez, and Dr. H. C. S. Aron.

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## PUBLIC HEALTH

## Directional Finder Shows Where Mosquitoes Breed

➤ A DIRECTIONAL finder for mosquito flights that can help locate where these possible disease carriers are breeding was reported by Lt. (jg) William M. Gordon, USNR, and 2nd Lt. Eugene J. Gerberg, U. S. Army, formerly assistant entomologist with the U. S. Public Health Service, to the National Malaria Society meeting in Cincinnati.

It consists of a mosquito barrier trap, made of four wire screens coated with Tree Tanglefoot, a non-drying varnish, and looks something like a weather vane. The screens are mounted at 90 degree angles to each other, giving two screen surfaces facing each wind direction and forming a barrier plane.

"If mosquitoes were taken only on the southeast side of the southwest screen and on the southwest side of the southeast screen," it was explained, "the mosquitoes must have come from a true south direction. If the prevailing winds happened to have been from the north, we could assume that mosquitoes were breeding south of the trap and were bucking the wind."

The trap does not necessarily serve as a weather vane but instead indicates flight direction, regardless of prevailing winds. Comparative tests showed these traps are as effective as electric mosquito traps.

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## NUTRITION

## New Link For Diet and Disease Resistance Found

➤ A NEW link between diet and resistance to infection appears in studies reported by Dr. C. A. Mills and Dr. Esther Cottingham, of the University of Cincinnati College of Medicine, at the meeting of the American Society of Tropical Medicine in Cincinnati.

When mice, rats and guinea pigs were starved of vitamins to the point where they failed to grow properly, the activity of their phagocyte cells was likewise reduced, these scientists found. Phagocyte cells play an important part in fighting off infection because of their ability to gobble up disease germs.

The reduction in phagocytic activity was found when the animals were on diets deficient in the following vitamins: thiamin, or B<sub>1</sub>; riboflavin, pyridoxine, pantothenic acid and choline, also members of the vitamin B family; and vita-

## CONSERVATION

# Shortages Cause Research

Lack of sufficient fuel in Great Britain has brought about an intensive conservation program. Gasoline manufacture from coal is increasing.

➤ FUEL SHORTAGES in Great Britain, in wood, coal, oil and gasoline, are directly responsible for an intensive fuel conservation program put into operation early in the war, and also for the establishment of scientific research projects covering both the conservation of fuel and the development of special fuels from English coal. These measures were discussed at the meeting of the American Society of Mechanical Engineers in New York City by W. C. Schroeder of the U. S. Bureau of Mines.

Conservation is being carried out through education and rationing, he stated. The gasoline rationing that the American public endures is mild compared with that in Great Britain. All pleasure driving is banned. Gasoline can be obtained only to go to work in essential industries and where no public transportation is available. Industrial users of coal are cut by nearly 8% of their normal amounts. Home owners are expected to maintain in their houses a temperature not over 60 degrees, and to avoid all waste of heat, water and electricity.

Research projects are those of immediate importance that can be solved quickly, he said. They include the development of producer-gas from coal to propel automobiles, trucks and buses; an efficient mixture of powdered coal

and oil for factory furnaces, and the conversion of coal to oil and gasoline.

Because of the lack of forests, wood or charcoal cannot be used extensively in England for producer-gas as they are in Germany and other countries. Anthracite and high-temperature coke are now yielding a satisfactory gas in Great Britain as a result of recent research. The coke-gas has greater activity when sprayed before using with a sodium carbonate solution.

Colloidal oil, made of a mixture of coal and oil, has been in use in England since World War I, but is more widely used now, perhaps because of better mixtures resulting from recent research. Experimentation in the conversion of coal to oil and gasoline did not start in England as early as in Germany, where research work started in 1913. About 1930, an English chemical company became interested, constructed a plant, and has been in commercial operation since 1935.

"Governmental and scientific circles in Great Britain are now fully awakened to the importance of these processes for making liquid fuels from coal," Mr. Schroeder declared. "It is to be hoped that this same realization of the potentialities inherent in these developments will arise in the United States."

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