

## MEDICINE

# Fleas Can Probably Transmit Typhus Fever, Scientists Say

**First Definite Incrimination of Fleas As Possible Carrier Made By U. S. Health Service Research Workers**

**F**OR THE first time the flea has been definitely incriminated as a probable vector in the transmission of typhus fever in this country. Experiments indicating this have just been reported by Drs. R. E. Dyer, A. S. Rumreich and L. F. Badger of the U. S. Public Health Service.

Typhus fever in the Old World seems to be of slightly different type from the disease in the New World, and is transmitted by the body louse. It has been called jail fever and ship fever and was very prevalent in jails, crowded barracks and ships, city slums, and wherever people lived in congestion and filth. The disease has never reached serious epidemic proportions in the United States and for many years very few cases have been reported.

The fact that the disease occurred in people who were not infested with lice led American investigators to suspect that some other insect was transmitting typhus fever in this country.

Drs. Dyer, Rumreich and Badger investigated cases of typhus which occurred on premises in the immediate vicinity of food-handling establishments in Baltimore in the late summer and fall of 1930. They found these premises heavily infested with rats. These animals were trapped and combed for fleas. About three dozen fleas were obtained from the rats and their nests.

The fleas were ground up and the emulsion injected into guinea pigs, which contracted a disease like typhus fever. The clinical symptoms and the appearance of the organs and tissues corresponded with the symptoms and signs in guinea pigs that had been inoculated with a strain of American or New World typhus fever.

Guinea pigs which had recovered from an attack of endemic typhus produced by the New World strain were apparently immune to subsequent inoculation with the strain obtained from the flea emulsion.

Typhus fever is not to be confused with typhoid fever. The latter is caused

by a bacillus, the former by a virus too small to be seen through the most powerful microscope. Typhus fever is transmitted by the bite of infected lice and probably by fleas. Typhoid is transmitted by infected food, water or milk, and attacks the intestines chiefly. Typhoid fever is less often fatal than typhus fever. There is no known vaccine for typhus fever, while there is a preventive inoculation for typhoid.

*Science News Letter, February 21, 1931*

## METEOROLOGY

## Foggiest Spot of U. S. A. Brightened Up in 1930

**T**HE FOGGIEST spot in the United States brightened up a little in 1930, and had only 1,562 hours of fog, so lighthouse keepers at Moose Peak, Maine, have reported to the Lighthouse Service of the Department of Commerce.

At Moose Peak, records for the past sixteen years show a yearly average of 1,607 hours of fog. Runners-up on Moose Peak's record are Libbey Island

and Petit Manan, also on the Maine coast. They are foggy a good deal of the time but cannot quite match Moose Peak's figures.

The U. S. Lighthouse Service states that Point Reyes Light Station holds the record for fog on the Pacific Coast, with an average of 1,398 hours per year for 45 years.

In 1907, Seguin Light Station in Maine threw its beams out in more fog than has ever since been recorded by any station: 2,734 hours of thick atmosphere. The fog horn was blowing a third of the time at this station during that year.

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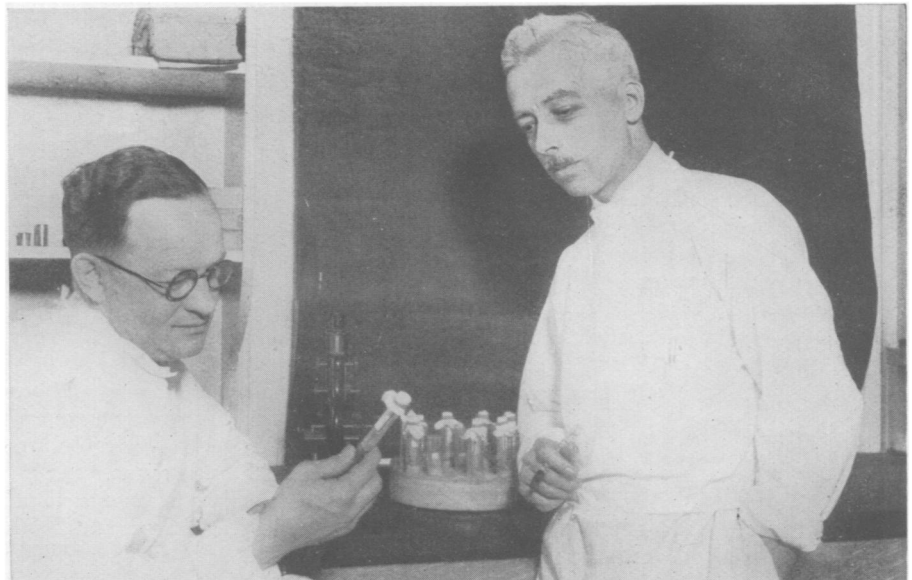
## ARCHAEOLOGY

## Round Temple Is Rare Find in Aztec Ruins

**A** ROUND temple of the Aztecs, built layer upon layer like a five-storied cake, each higher layer smaller than the one below it, is the rare discovery made by government archaeologists of the State of Mexico, who are working at Calixtlahuaca. The name of the site translated from the Aztec would be something like Prairieville.

The excavations at Calixtlahuaca recently begun by the state government under the direction of Jose Garcia Payon, are being made at nine different places. Numerous pyramids and terraces indicate that the ruins will rank among the most important of Mexico's newer archaeological sites.

The round temple is found to have a



**FIND PROBABLE CARRIER OF NEW WORLD TYPHUS FEVER**

*Drs. L. F. Badger, left, and R. E. Dyer, right, who worked with Dr. A. S. Rumreich in the study of typhus.*