

EPIDEMIOLOGY

Mosquitoes Are Incriminated As Sleeping Sickness Carriers

Evidence Indicates They May Carry Both Equine and St. Louis Types; Belong to Species *Culex Tersalis*

THE VIRUSES that cause two kinds of "sleeping sickness" have been discovered for the first time in mosquitoes collected in regions where the diseases were epidemic, Dr. William McD. Hammon, Dr. William C. Reeves, Dr. Bernard Brookman, and Dr. Ernest M. Izumi, of the University of California, and U. S. Department of Agriculture Entomologist C. M. Gjullin, stationed at Portland, Ore., report. (*Science*, Oct. 3.)

The evidence incriminating mosquitoes as carriers of both St. Louis and Western equine types of encephalitis, or sleeping sickness, is thereby increased, but the role of the mosquito as carrier of the disease has not yet been proved, Dr. Hammon and associates point out.

For proof that mosquitoes carry the disease, laboratory animals must get encephalitis after being bitten by mosquitoes that have previously bitten other animals known to have encephalitis. Ex-

periments of this type are now in progress.

The mosquitoes now implicated belong to the species, *Culex tersalis*, which is widely distributed throughout the states west of the Mississippi River and is the most common mosquito in the Yakima Valley, Wash., where it feeds on man, horses, mules, cows and mallard ducks. Encephalitis cases have been occurring in both man and horses in this valley, and previous studies by Dr. Hammon and associates indicate that barnyard fowl, such as ducks, may be a reservoir of the encephalitis virus.

A practical and speedy diagnostic test for encephalitis proved its value during the epidemic just ending in Manitoba, Can., and central United States, Dr. J. Casals and Dr. R. Palacios, of the Rockefeller Institute, report in the same issue of *Science*.

This test is known to scientists as the complement-fixation test. Such tests on

blood from patients in Manitoba and Colorado indicated that the epidemic was caused by the virus of horse encephalitis of the Western type.

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SURGERY

Patient Survives Removal Of One Entire Lung

THE FIRST man who ever had an entire lung removed to get rid of a cancer is still alive and active in his profession of surgery eight years after the operation, Dr. William E. Adams, of the University of Chicago, told scientists gathered for the University's Fiftieth Anniversary Celebration.

During ordinary activities, Dr. Adams said, the surgeon-patient "is unaware of signs or symptoms of embarrassment referable to the cardio-respiratory (heart and breathing) system. Many examples of shorter duration show this to be the rule rather than the exception."

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PALEONTOLOGY

Find Rhinoceros Prints 40,000,000 Years Old

DISCOVERING the first footprints ever found of rhinoceroses that roamed the West 40,000,000 years ago, an expedition of the Philadelphia Academy of Natural Sciences has brought a choice footprint sample from the discovery site at Hat Creek Basin, Wyoming, to Philadelphia.

The sample, consisting of ancient mud hardened to sandstone, weighs 600 pounds, and it took four men half a day to get the stone block out. The block of sample prints was chosen from hundreds in the rocky ledge, which represents the edge of an old, old watering hole where Oligocene animals came to drink. America's 40,000,000-year-old rhinos were only half as big as modern kinds. Bones of the ancient animals were found nearby. Robert W. Chaffee, leader of the expedition, discovered the tracks.

Fifteen miles away, the expedition located a veritable zoological garden of early American animals. The skeletal remains include sabre-tooth tigers, tiny camels, giant pigs, prehistoric dogs, and rabbits. Teeth of the rare Artiodactyl, a deer-like animal heretofore known only by a single skull, were also discovered.

The expedition collected over two tons of fossil specimens for scientific study.

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EXTINCT RHINOCEROS TRACK

This 40,000,000-year-old footprint of an extinct animal was collected by Robert G. Chaffee, assistant curator of paleontology of the Academy of Natural Sciences of Philadelphia.