

PUBLIC HEALTH

Encephalitis Outbreak

Sleeping sickness, or encephalitis, is increasing in some areas of the West and Southwest. Public health officials are working to keep the outbreak from spreading.

► SLEEPING sickness, the dread encephalitis, is not a strange disease afflicting only peoples in distant Africa or Asia. It is right at home in the United States. And this year's heavy spring rains and a wet summer have increased the likelihood of encephalitis outbreaks: swamps, marshes and stagnant waters are breeding grounds for the mosquitoes that carry the disease-causing virus.

So far this year, California reports 31 confirmed cases of the disease, mostly in the central valley area. Utah reports 20 cases with four deaths, according to the most recent reports received at the U. S. Public Health Service in Washington, D. C. Colorado has 14, New Mexico, 15 cases and Wyoming has five or six cases reported.

Medical science can offer little to help those afflicted with the disease. There is no known treatment, no "wonder drugs."

When a person comes down with encephalitis all a doctor can do at present is to treat the individual symptoms. Pills can be given to alleviate the headache, the vomiting, etc., but nothing can be done to knock out the disease. As a result, the mortality rate has been as high as 65% in some epidemics. Often, however, depending on the type of encephalitis, the mortality rate is lower.

In the current western outbreaks two types of encephalitis are thought to be prevalent. Neither one is the same as the virus now causing thousands of cases of sleeping sickness in Japan and South Korea.

One type is the St. Louis encephalitis, so called because of the outbreak of the disease in that city 25 years ago that resulted in more than 1,000 cases. This type of sleeping sickness is now endemic in the United States, which means that there are always a few cases reported each year.

The other type is called western equine encephalitis that earned its name because it was first discovered attacking horses and mules.

Diagnosis of encephalitis is often difficult because symptoms of this virus-caused disease are like those of many other diseases. Symptoms include headaches, vomiting, a marked slowing of thought with intellectual and emotional "laziness" and the development of major psychoses. In some forms of the disease, paralysis may develop. Even when recovery occurs there can be mental impairment.

Public health experts claim the human disease does not reach serious enough proportions in the United States to warrant the development of a vaccine for mass inoculations. In most years, they say, the number of cases does not exceed a couple of hundred. As a result there is no vaccine for humans. There is one for horses.

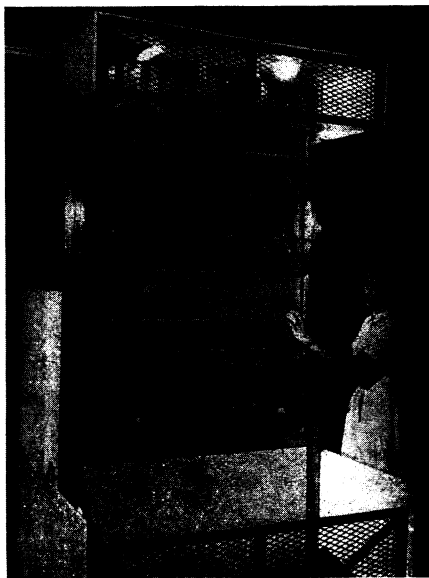
Last year, Louisville, Ky., reported 200 cases.

According to the public health officials, the best preventive is destroying the mosquito carriers and their breeding places. DDT is still one of the most effective agents for accomplishing this. *Aedes aegypti*, a vector for yellow fever too, and *Culex tarsalis* both transmit the virus that causes the equine encephalitis. Apparently, however, both men and horses seem to be secondary hosts for the disease. Wild birds are the important carriers.

Usually the disease travels from mosquitoes to birds to mosquitoes. When the mosquito population flares up, as it did this summer, the insects take to biting men and an encephalitis epidemic may be on. Chances are slim that other animals, such as cattle or bats, which have been implicated in other virus diseases, play a role as carriers.

The same tick, *Dermacentor andersoni*, that carries the Rocky Mountain spotted fever has been found to carry equine encephalitis. It seems to be able to keep the virus and pass it on to its offspring.

There is little danger that individuals who have the disease act as carriers, spreading it into uninfected areas. For example, public health officials are not concerned about the dangers of the disease entering the country through persons traveling from Japan and



WONDER WINDOW — Sensitive electronic-mechanical contacts on the outside of this especially designed, experimental window set off an electric motor which closes it.

South Korea where there is a sleeping sickness epidemic sweeping the country.

While there are no provisions as such for a state or local area to receive Federal aid in fighting an outbreak of encephalitis, state health department officials can call on the Federal Public Health Service for "epidemic aid." Under these circumstances advisers and experts in the problem will be sent to study the situation. There is no Federal aid program for mosquito abatement, although several bills for such measures were introduced during the last Congress.

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● RADIO

Saturday, Sept. 27, 1958, 1:30-1:45 p.m., EDT

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio network. Check your local CBS station.

Dr. Byron T. Shaw, administrator, Agricultural Research Service, U. S. Department of Agriculture, Washington, D. C., will discuss "Pioneering Research for Agriculture."

ENGINEERING

Window Opens, Closes Automatically

► A WINDOW that can be controlled by weather conditions has been perfected by the Truscon Division of the Republic Steel Corporation.

Called "wonder window," it reacts automatically, closing if the temperature inside the house drops below a pre-determined setting, rain or snow falls, or a strong wind blows.

Reaction of the window to rain and snow is determined by two "electric eyes" outside of the window just below the sill. When rain or snow contacts the eyes it completes a circuit and electronic relays actuate an electric motor causing the window to close.

A tiny mechanical flapper that is placed in a panel above the window reacts to winds over certain velocities.

The experimental window is made to serve as its own storm window. Each vent consists of two panes of glass sealed together after the air is removed from between the panes. It is weather stripped with a tight sealing vinyl.

Every time the wonder window opens, a screen automatically rises from under the sill. When the window closes, the screen backs down into its housing. The screen always operates automatically regardless of whether the vents are operated manually or automatically, so that you never have to look through a screen when the window is closed.

C. B. McGehee, Truscon's general manager of sales, emphasized that the company does not plan to market the window either at present or in the foreseeable future.

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