

PUBLIC HEALTH

Congress Provides for Fight On Spread of Spotted Fever

As Disease Extends Boundaries in West, Health Service Workers Announce Discovery of Similar Malady in East

CONGRESS has passed the Walsh bill to take over the Hamilton, Montana, Rocky Mountain spotted fever laboratories at a cost of \$75,000 and in the Second Deficiency Bill as it came up for final passage there was a second \$75,000 item for the purpose of constructing another governmental laboratory on this site. The Rocky Mountain spotted fever work has become so important to the whole country as a result of its recent spread eastward, that a special drive by the National Institute of health will be necessary in combating the disease in 1931-32.

As Congress provides the means to fight the dangerous Rocky Mountain spotted fever, which it had been thought was confined to the west, three research workers of the U. S. Public Health Service in Washington—Drs. R. E. Dyer, L. F. Badger and A. S. Rumreich—report evidence that the fever, or a disease very like it, occurs in the states of the eastern seaboard.

Rocky Mountain spotted fever is caused by a virus which gets into the blood by the bite of a tick. The first symptoms are chills and general discomfort. The fever may run as high as 107 degrees Fahrenheit. On or after the fourth day an eruption or spotty rash appears which is dark red and may become purplish. Pains in the bones, muscles, head and neck, and delirium are other symptoms. The disease lasts for several weeks. In some localities it is highly fatal. A protective serum has been developed by Dr. R. R. Spencer of the Public Health Service.

In April, 1930, Dr. Dyer and colleagues began investigating cases of typhus fever which had been reported in some numbers from southeastern states. They soon found that there were actually two diseases, one typhus and one a similar disease which they believe is Rocky Mountain spotted fever. At least the second disease cannot be distinguished from Rocky Mountain spotted fever clinically.

They found that patients who had typhus lived in cities or towns, while

the spotted fever patients with only one exception lived in the country. Most of the typhus patients had been in close association with rats and many remembered being bitten by fleas, probable typhus carriers, shortly before they became ill. Half of the spotted fever group had been bitten by ticks and the rest had lived under conditions in which tick bite was possible. The spotted fever cases, moreover, occurred at times which corresponded with the tick season, whereas the typhus cases were scattered throughout the year. No deaths occurred in the typhus group but in the Rocky Mountain spotted fever group there were seven.

Dr. Dyer and his colleagues followed up the circumstantial evidence they had gathered in their field investigations. From blood of some of the spotted fever patients a virus was established which resembles closely the virus of Rocky Mountain spotted fever.

One of the most conclusive bits of evidence was the immunity test. Animals and men that have had spotted fever once do not get it again, but are

immune to it. The investigators found that animals that had recovered from Rocky Mountain spotted fever were immune to the strain isolated from the unknown disease of the Southeast. Conversely, animals recovered from the unknown disease were immune to Rocky Mountain spotted fever.

Proof that this new disease in the Southeast is Rocky Mountain spotted fever seems positive, but the U. S. Public Health Service's cautious scientists refrain from saying so yet, and call the new disease "an infection of the Rocky Mountain spotted fever type."

In the East, the Rocky Mountain spotted fever type cases occurred or originated in rural communities in Delaware, Maryland, Pennsylvania, Virginia, North Carolina and the District of Columbia.

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RADIO

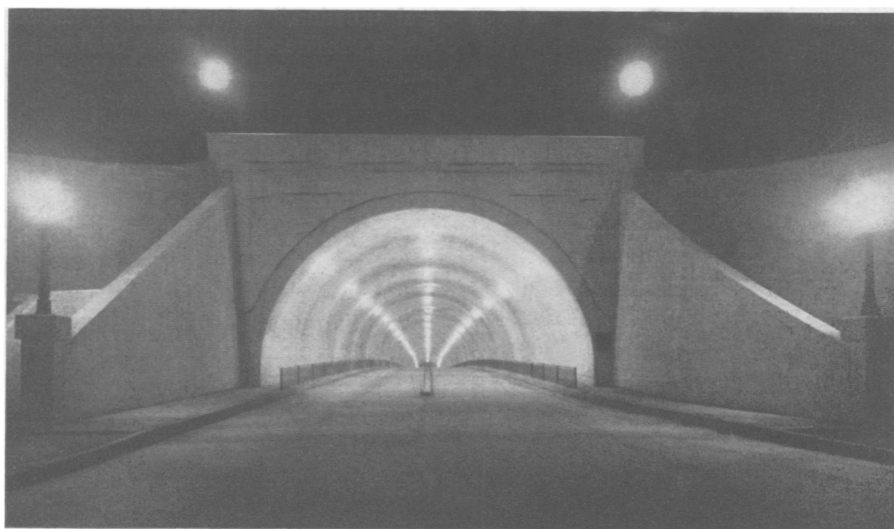
Government To Build New Radio Laboratories

TWO HUNDRED acres of land near Washington will soon be purchased by the Bureau of Standards of the U. S. Department of Commerce as a new site for radio research activities.

A bill authorizing such a purchase was passed by Congress.

Experiments both in sending and receiving will be made. A number of buildings and an experimental radio transmitting station will be constructed.

Science News Letter, March 7, 1931



HIGHWAY THROUGH A MOUNTAIN

The camera has caught in an excellent mood the new and well lighted Beaucatcher tunnel at Asheville, N. C., so named for the mountain through which it passes. It is 1,035 feet long, 40 feet wide and 22 feet high, and eliminated a tortuous road over Beaucatcher mountain bringing national and state highways to the city. The construction cost was \$423,000.