

MEDICINE

Parasite Poses Problem

Amebic dysentery, a tropical parasitic disease that riddles the intestines, may be more prevalent than suspected. Fear many are "carriers."

► A LARGE PORTION of our population may be harboring a dread tropical disease that bores into the intestines and makes chronic patients of its victims.

One million veterans and 15,000,000 men and women in civilian life may be playing host to amebic dysentery, the parasitic tropical trouble-maker.

This estimate, based on the findings made at the Veterans Administration's Tropical Disease Clinic, Winston-Salem, N. C., under the direction of Dr. Thomas T. Mackie, professor of preventive medicine at the Bowman Gray Medical School of Wake Forest College, appeared in an article by Chester S. Davis in the *Winston-Salem Journal* and *Twin City Sentinel* (Aug. 8).

(In Washington authorities pointed out that the results at Winston-Salem may apply only to the veterans examined and may not be typical of the nation-wide situation.)

Mr. Davis's estimates are based on the fact that of 330 veterans examined in this clinic in the past 18 months, 134, or 40.6%, had amebic dysentery. Another 46 veterans were found to have other tropical diseases. He states that "in less than one percent of the cases had these diseases previously been diagnosed, although most of the infestations already were four and five years old."

Men who came to this clinic for the

most part had vague, undiagnosed complaints that refused to respond to treatment elsewhere but presumably they were suspected of having tropical disease when sent there and that may weigh the figures in these findings.

However, the magnitude of this problem has increased with the return of many men from service in tropical areas who may be unsuspected casualties of the disease. These are the facts presented by Mr. Davis:

A person may be chronically ill for many years before the true nature of his infection is discovered, for few doctors are trained to detect it. There probably are not more than 12 fully trained men actively practicing tropical medicine in the U. S. Many persons may be carriers, for the amoebae surround themselves with hard shells and these cysts are passed in the feces to find another victim. There is no cure for this intestine-riddling disease when allowed to progress too far.

A one-celled protozoa is the parasitic agent in this disease which over a period of time may riddle the intestine with small, round ulcers. In these aggravated cases the painful "bloody flux" is a common symptom. The amoebae may get to the liver via the blood vessels and there produce inflammation and abscessing that may lead to death.

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GEOPHYSICS

"Doodlebug" Hunts Oil

► THE INNER WORKINGS of the wartime "doodlebug" pest to German U-boats in the Atlantic were revealed at the Westchester County Airport, N. Y., by the Gulf Oil Corporation to a group of science writers. Its application to oil surveys was also demonstrated.

Its proper name is the magnetometer. It is a device housed in a bomb-like structure which is trailed behind and below an airplane. Its delicate magnetic instrument reacts to magnetic influences below, even to a submarine concealed deep in the ocean. It was used during the war, and since, to locate hidden iron ore deposits. Its greatest use today is in the search for petroleum, even oil under swamps and in the ocean bed.

It has already been used in many surveys for oil, including an 85,000-square-mile area of the continental shelf in the region of the Bahama islands where other scientists, working under giant diving bells,

used gravity methods. The magnetometer method is now being used to explore a great tract in Africa with American planes and American instruments. Many other surveys have been made over dry land and almost inaccessible swamps. One great value of the magnetometer is its ability to survey hard-to-get-at areas, and do it with great speed.

The magnetometer reacts to the earth's magnetism in addition to iron and steel objects and to deposits of magnetic ore. As explained by Gulf scientists, the earth's magnetic field varies in intensity. The variations of importance in oil explorations are those caused by differences in composition and proximity to the surface of the magnetic igneous rocks which comprise the underlying or basement rock found in all areas.

When the structural configuration, or form, of these basement rocks is such as to bring them relatively close to the surface,

a magnetically high area will be indicated by the instruments. Thus, by the variations in these magnetic measurements the geophysicists secure information which permits them to make a contour map, which shows variations in the composition and structure of the earth's basement rock.

The overlying sedimentary rock may reflect a similar configuration, which can indicate the existence of geological conditions permitting the accumulation of oil.

The heart of the magnetometer is a magnetically sensitive element about the size of a cigarette. Its findings are transmitted to the instrument in the plane through the trailing cable. The air-borne magnetometer's success is due in large part to its ability automatically to orient itself at all times so that it is in perfect alignment with the earth's magnetic field.

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Fever Plus Penicillin Has More Anti-Syphilis Effect

► A TEN PERCENT improvement in syphilis treatment is obtained when artificially induced fever is added to the seven and one-half day penicillin treatment, a group of doctors headed by Dr. Herman N. Bundesen, president of the Chicago Board of Health, reported in the *Journal of the American Medical Association* (July 31).

Penicillin alone rated 70% effective and



NERVE CENTER—Heart of the airborne magnetometer, housed in a bomb-like structure which is lowered beneath a moving airplane, is the small tube-like piece being held by the hand in the photograph.