

## MEDICINE

# New Test for Hookworm

Quantitative evaluation makes possible more accurate prescription of drugs for treatment of this and other worm diseases.

➤ A NEW diagnostic test which will help toward better treatment of diseases afflicting hundreds of millions of people throughout the world was announced at the Congress of Tropical Medicine and Malaria in Washington, D. C.

The diseases are hookworm and the fluke-caused sickness called schistosomiasis. The test would probably be effective for any disease in which worms or flukes get into the body and give off eggs. It was devised by Drs. Elmer H. Loughlin, Samuel H. Spitz, Richard H. Bennett and Jerome P. Margolies of Long Island College of Medicine, Brooklyn.

With this test, doctors will be able for the first time to tell exactly how many hookworms or blood flukes are in the patient's body. He can then prescribe much more exactly the amount of medicine needed to free the patient of the worms or flukes, and get him well.

The test also makes possible for the first time accurate diagnosis of these diseases in patients having only a light infection. This will help many who come back from the tropics with a vague intestinal disorder that baffles the doctor and does not get better under ordinary treatment. But with the new test, the doctor can find out exactly what does ail the patient and give a drug that will cure him.

Schistosomiasis is found in Egypt, many Mediterranean countries, China, Japan and the Philippines. The flukes

are carried by snails. Humans get them from drinking or bathing in infested waters. Some 85,000,000 persons throughout the world are afflicted with this condition and another 457,000,000 have hookworm, according to surveys based on previous tests for the disease. But these tests only showed heavy infections. If the light infections that can be detected by the new test were found, the total figures would be very much higher.

One out of every three or four persons in the United States is probably carrying some kind of worm or fluke or ameba in his body, the Long Island doctors estimate. They base this on the numbers they are finding in Brooklyn with their new test. Many who have these worms and other parasites do not know it and may not even be sick. But there is danger of their spreading the diseases, just as healthy carriers of typhoid germs can unknowingly spread that disease.

Tests for the fluke and worm diseases all depend on finding the eggs in the intestinal wastes. The new test concentrates the eggs, so that even if there are only a few, they will be detected. Since it is quantitative, and since scientists know how many eggs a female hookworm, for example, will discharge in a day, the test gives the number of worms in the patient's body. The shape, size and structure of the eggs, seen under the microscope, tell which kind of worm or fluke the patient is harboring.

*Science News Letter, May 22, 1948*

## CONSERVATION

# China Has National Park

What may be the first of a park system like ours includes a special area for preserving the "dawn sequoia" trees previously known only from fossils.

➤ CHINA has made the beginning of what may grow into a National Park system like that of the United States, by setting aside a special area for the conservation of the recently discovered

"dawn sequoia" trees in the Valley of the Tiger. Announcement of this move was made simultaneously in China and at the University of California, where Prof. Ralph W. Chaney, first occidental

botanist to set eyes on the trees, is now growing seedlings for planting on this side of the Pacific.

A Metasequoia Conservation Committee has been set up, with members representing this country as well as China. American members, in addition to Prof. Chaney, are J. Leighton Stuart, U. S. ambassador to China, and Dean Roscoe Pound of the Harvard Law School, who was a front-rank botanist before he decided to make the law his career. Chinese members are the philosopher Hu Shih, former ambassador to Washington, Wong Wen Hao, advisor to Chiang Kai-Shek, and Han Lih Wu, vice minister of education.

The "dawn sequoia," a species previously known only from fossils and supposed extinct for at least 20,000,000 years, was recently found alive in the deep interior of China. A few weeks ago Prof. Chaney made a special journey to see it, starting by flying across the Pacific and winding up by tramping dozens of miles over muddy mountain trails.

*Science News Letter, May 22, 1948*

## MEDICINE

# Change in Fluid Balance May Kill Malaria Victims

➤ A CONTRIBUTING cause of death in malaria may be a change in fluid balance in the body and not the malaria germs themselves. Studies with monkeys and humans suggesting this were reported by Dr. Richard R. Overman of the University of Tennessee College of Medicine.

The same condition may be the cause of the debility after an attack of malaria, Dr. Overman thinks.

During the attack of malaria, he finds, the walls of the body's cells become more permeable. Substances get inside the cells which normally should not be there. Dr. Overman believes the intermittent fever of malaria is what makes the cell walls permeable. The same thing may happen, he suggests, in other diseases with fever that comes and goes.

The cell permeability can be reversed by treatment with anti-malaria chemicals. But if the condition becomes serious enough, it is no longer reversible. This was the case in monkeys and Dr. Overman believes it also occurs in humans. Monkeys given anti-malarial chemicals after the fluid upset had become serious died, though the chemicals had killed all the malaria parasites.

*Science News Letter, May 22, 1948*