

MEDICINE

Antibiotics Aid Brucellosis

Fever leaves patients in three to five days when they are treated with either terramycin, aureomycin, and chloramphenicol or chloromycetin. Aches and pains leave slower.

► PATIENTS with brucellosis get over their fever in three to five days when treated with one of three so-called mold drugs, terramycin, aureomycin and chloramphenicol, or chloromycetin. Headaches, other aches and pains and weakness disappear more slowly.

These results of a trial of the three drugs are reported by Drs. John H. Killough, Gordon B. Magill and Richard C. Smith, of the U. S. Naval Medical Research Unit No. 3. (JOURNAL, AMERICAN MEDICAL ASSOCIATION, Feb. 24). The trials were made in Cairo, Egypt, with the cooperation of the Egyptian Ministry of Health.

Brucellosis is also known as undulant fever and Malta fever. It is a disease of cows, goats and swine as well as man. Humans get it from unpasteurized milk and milk products of infected cows or goats and from infected hog's meat. It is a long-drawn out illness with frequent relapses. It is caused by a germ named brucella.

Streptomycin was the first drug that gave genuine promise of effective treatment. It has been used alone and combined with a sulfa drug with good immediate results and with significant reduction in relapses. Toxicity, however, was serious, Dr. Killough and associates point out.

The three newer antibiotics, terramycin, aureomycin and chloramphenicol, give "excellent" results with only minor toxic effects from aureomycin. These consisted of loss of appetite, nausea and occasional vomiting.

Relapses, however, also occurred after treatment with these drugs. They cannot therefore be considered cures. The three doctors are now trying to find a combination of two drugs or a different-sized dose or length of treatment that will both relieve the symptoms and prevent relapses by routing the germ of the disease from the patient's body.

Science News Letter, March 3, 1951

MEDICINE

Drug Effective in TB

► GOOD RESULTS with a new weapon against tuberculosis are reported by Drs. Alfred G. Karlson and Joseph H. Gainer of the division of experimental medicine, Mayo Foundation, Rochester, Minn.

The drug has already been given to patients but so far the successes reported are in guinea pigs and mice.

The new weapon is a kind of mold drug called viomycin. It is related to streptomycin. It gets its name because of the violet color of cultures of the organism that produces it.

Viomycin is effective against tuberculosis germs that are resistant to streptomycin as well as against those sensitive to streptomycin, the guinea pig trials show. And it was fully as effective as streptomycin against the streptomycin-sensitive strain of TB germs.

Trial of the drug in patients showed some signs of damage to kidneys and the vestibular mechanism in the ear. These reactions were not severe enough to stop further trial of the drug. Patients given the drug so far, however, had such extensive tuberculosis that no conclusions could be made on the effectiveness of viomycin as a remedy. These trials on patients were reported by Drs. C. A. Werner, R. Tompsett,

C. Muschenheim and W. McDermott of Cornell Medical College.

Viomycin was obtained from an organism called *Streptomyces floridiae* by five researchers at Parke, Davis and Co., Detroit, and from another *Streptomyces*, called *puniceus*, by 12 researchers at Charles Pfizer and Co., Brooklyn, N. Y.

This new antibiotic drug is not effective against many germs, according to test tube trials. But, the Mayo scientists report, in tuberculous guinea pigs it caused a marked slowing and healing of the disease which was progressive when treatment was started.

Science News Letter, March 3, 1951

GENERAL SCIENCE

To Double the Funds For Defense Research

► THE DEFENSE DEPARTMENT hopes to double the money it is spending on research and development to a sum in excess of one billion dollars. This would be almost 60% of all the money spent on research and development in this nation.

This was the statement of Dr. Eric A.

Walker, executive secretary of the Defense Department's Research and Development Board. He spoke as a guest of Watson Davis, director of Science Service, on Adventures in Science, heard over the Columbia network.

All this money must be spent, said Dr. Walker, on what is essentially a compromise forced upon the country by the pressure of world events.

During the last war, Dr. Walker pointed out, new weapons, such as the atomic bomb, radar and the proximity fuze had been worked out. However, basic research had been neglected and there were many areas in which theory was insecure.

"It was obvious," said Dr. Walker, "that these gaps had to be filled and that basic research had to be extended to provide a foundation for further developments and newer weapons."

In 1945, he went on, it seemed safe to assume that the armed forces had 15 years of peace in which to do this job. But now the situation is different and we should be ready for war at a much earlier date—1955 or even 1952. This poses a problem.

"Are we once more to buy replicas of the weapons of the last war, or should we have new weapons which can again put us one step ahead of our potential enemies," asked Dr. Walker. "The development of these new and better weapons has not been completed. The blueprints are not ready. The best we can do is compromise—buy some of the old weapons now and rush through our development program so that within the next year or so we can be prepared to build and issue to our forces the best weapons available."

Dr. Walker also pointed to the contribution the universities of the nation could make to defense in both research and development.

Science News Letter, March 3, 1951

INVENTION

Give Yourself Haircut With New Invention

► "GIVE YOURSELF a haircut" is the apparent advice of inventor Jacob A. Altman, of Los Angeles, who received a patent on a device which makes the home haircut possible. Patent 2,542,450 was his award.

It might be described as a comb-like device with teeth long enough and curved enough to fit over the entire back of the head. The hair projects outwardly between the teeth. After placement, it is held in position by neck and forehead straps.

Over this comb-frame is another, hinged to the first at its lower edge, and angled out to any desired amount by a thumb-screw at the top. It is this outer comb-frame that guides the cutting blade and causes it to cut close low down on the neck and not so close toward the top of the head.

Science News Letter, March 3, 1951