

NUTRITION

To Combat Malnutrition

► WEAK, DIZZY, bedridden, often pain-racked and crazed victims of poor diet came by the thousands last year to the Nutrition Clinic at Hillman Hospital, Birmingham, Ala., Dr. Tom D. Spies, associate professor of medicine at the University of Cincinnati and founder and director of the Nutrition Clinic it maintains at Birmingham, reported to the Spies Committee for Clinical Research meeting in New York.

More than half of those who had severe pellagra would have died and one-tenth of those who lived would have spent their remaining years in mental hospitals in 1930. But in 1944 there was not a death among the 5,845 patients with deficiency diseases in the Nutrition Clinic.

More than 2,000 physicians, nurses, chemists and nutritionists from all over the nation watched these suffering men, women and children recover when the specific diet lack that caused their illness was discovered and remedied.

The visiting scientists saw thousands more sent elsewhere for treatment be-

cause their painful neuritis, eye trouble or insanity was not caused by nutritional failure and could not be treated at the clinic. The tests, examinations and careful questioning about diet habits by which diet deficiency diseases or nutritional failure can be detected even when typical signs are lacking were all demonstrated.

For Dr. Spies believes and hopes that tens of thousands who can not come to the Nutrition Clinic and may never hear of it can, through its service as a demonstration center, be saved from death, insanity and the wretched, poverty-stricken existence that may be caused by nutritional failure.

"Few physicians," he said, "realize the meticulous clinical study needed before a diagnosis of deficiency disease is justified. The science of nutrition has advanced so rapidly that the practicing physician wonders what he can include as valid in his day-to-day practice of medicine. Since the Nutrition Clinic was first established, we have felt that we should make every effort to clarify the subject for the physician and to promote wider application of earlier and better methods of treating nutritional deficiency diseases. We are trying to serve as an auxiliary to everyone interested in promoting better nutrition."

Science News Letter, April 7, 1945

MILITARY SCIENCE

Emergency First Aid Kit Is Also a Life Raft

► A NEW first aid kit specially designed for use at high altitudes in B-29 Superfortresses has been developed by Col. John L. Gallagher of Valley Forge General Hospital at Phoenixville, Pa., reports the magazine, *Air Force*. The case in which the kit is assembled acts as a self-sealing buoyant life raft which will support the weight of one man for some time, if the plane is forced down at sea.

The main feature of the kit is a new pressure bandage which consists of a gauze pad stuffed with packing material, with a bandage roll attached. This forms a pliant but firm covering for large and small wounds and eliminates the need for a conventional tourniquet. It effectively binds the wound without shutting off the flow of blood. This bandage was designed for quick, easy handling

by gloved hands in low temperatures while a plane is bouncing around as it does in turbulent weather or combat flying. In the case of broken bones, two or more of these pressure bandages may be used to make a comfortable temporary splint.

Other items in the new high altitude kit include a quantity of morphine kept in a special heated compartment that can be opened while wearing cumbersome flying gloves by breaking open a special built-in lock; sulfa drugs; standard dressings and a special knife that will cut quickly through several layers of heavy flying clothing when a compression bandage needs to be applied without injuring the wounded man.

Science News Letter, April 7, 1945

MEDICINE

More Disease Germs May Yield to Streptomycin

► HOPE that still another group of microorganisms that plague mankind with disease and death may be brought under control by streptomycin, a remedy of the penicillin class, appears in a report by Dr. F. R. Heilman, of the Mayo Clinic.

The germs are known as Friedlander's bacilli and also as *Klebsiella*. They occasionally cause a severe type of pneumonia and may also cause abscesses, ear trouble, meningitis, osteomyelitis, blood poisoning and a form of heart trouble. They are not uncommonly found in the sputum of patients with chronic bronchitis.

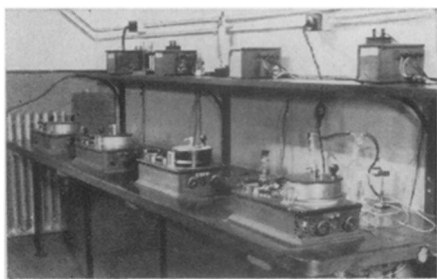
Streptomycin, Dr. Heilman and associates found, checked the growth of these germs in test-tube experiments. It protected mice from lethal doses of the germs.

Streptomycin was then given by Dr. W. E. Herrell to two patients who had respiratory infections, with *Klebsiella* persistently present in the sputum. The germs promptly disappeared from the sputum after streptomycin treatment was started.

The results, the scientists report, suggest that streptomycin may be useful in treating patients with infections caused by the Friedlander group of microorganisms.

Science News Letter, April 7, 1945

DDT, the new insecticide, is chemically dichloro-diphenyl-trichloroethane and is made by condensing chlorobenzene and chloral in the presence of sulfuric acid.



HOW COLUMBIA UNIVERSITY USES TYPE K POTENTIOMETERS

In order to provide their advanced students with a reliable setup for making highly precise measurements of potential difference and electromotive force, the Chemistry Department of Columbia University equipped their laboratory with four Type K-1 Potentiometers, shown above. The oldest of these instruments has been in use since 1912 and the youngest is several years old. All potentiometers are supplied by a single, large storage battery of highly constant voltage, and each instrument is permanently connected to a No. 2420 enclosed lamp-and-scale galvanometer.

Type K-1 has two ranges, 0-1.61 volts and 0-0.161 volts. We also supply Type K-2, with a third range of 0-0.0161 volt. It is direct-reading on the highest range, and its last tenth, hundredth, or thousandth volt is spread over a 5-meter-long slidewire. The price of the K-1 is \$250, and the K-2 is \$300.

For further information, see Catalog E-50B(8)

