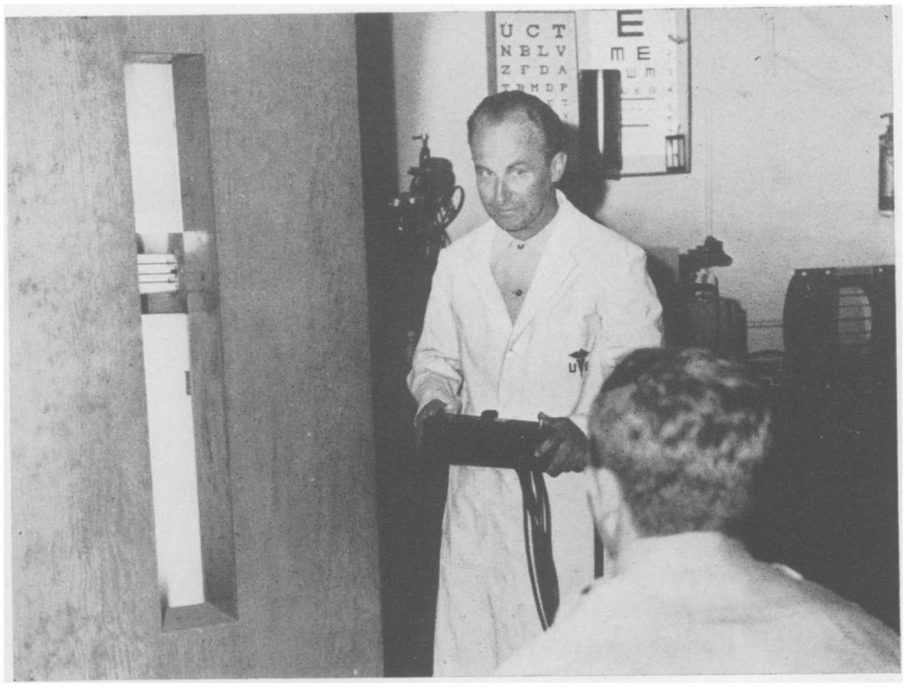

MOTION TESTER—In his laboratory at the Air Force School of Aviation Medicine, Dr. Heinrich W. Rose (standing) examines a subject with the motion parallax tester for visual depth perception. On the acuity of depth perception, among other factors, depends the subject's ability to land an airplane.

OPHTHALMOLOGY

One-Eyed Person Can Pilot

Distance of moving objects can be judged with one eye alone, new type of test using movable wires mounted on a frame shows.

➤ A PILOT with only one eye can land an airplane safely.

Just how a one-eyed person is able to judge distance, depth, and speed as he must to make a plane landing is revealed by Dr. Heinrich W. Rose, research fellow at the U. S. Air Force School of Aviation Medicine, Randolph Field, Texas.

Distance of moving objects, Dr. Rose found, can be judged with one eye alone through the familiar fact that objects close by appear to move faster than those farther away. The train in which you may be riding seems to be going faster if you look at the telegraph poles beside the track than if you keep your eye on the mountains in the far distance.

A new type of test for distance perception designed by Dr. Rose has three wires mounted on a frame that moves rapidly up or down. The outer wires are fixed; the middle wire can be shifted nearer or farther away. The person tested adjusts this middle wire until it seems to him at the same distance as the other two.

The average pilot can tell whether the middle wire is in front of the others or behind them from its apparent speed in relation to theirs. He can tell with only one eye open as well as with two.

Dr. Rose's test is called the "motion parallax tester;" it will probably keep some pilots in the air who would otherwise be grounded because their two eyes do not work well together in binocular vision.

Dr. Rose became interested in this research when he was a flight surgeon with the German Luftwaffe. One day he waited with his ambulance to pick up a pilot who had sent word by radio that one eye had been shot away. Instead of crashing, as was expected, the one-eyed pilot came in for a perfect three-point landing.

Recommendation by Dr. Rose: Plant rows of small evergreens along runways as an aid to the approaching pilot.

Science News Letter, July 21, 1951

There are many varieties of *bats* throughout the world; some live entirely on fruit for food, some on insects, and then there is the vampire bat that feeds entirely on fresh blood.

PHYSICS

This Time Americans Claim Doing It First

➤ A GROUP of American physicists are figuring that they have a right to claim Stalin prizes for themselves.

Boris G. Lazarev, a Soviet physicist, was awarded a Stalin prize a few months ago for a new method of enrichment of helium with light isotopes. Early last year he and an assistant, B. N. Eselson, published a method used to separate the hydrogen isotope, tritium, from helium. (Tritium is one of the supposed materials of the hydrogen super-bomb.)

But C. T. Lane of Yale points out in a comment to the American Institute of Physics (PHYSICS TODAY, July) that in 1947, he, H. A. Fairbank of Yale, A. O. C. Nier and L. T. Aldrich of University of Minnesota published the same "heat-flush" seperation method.

Science News Letter, July 21, 1951

MEDICINE

Terramycin Effective Against Children's Whoops

➤ WHOOPING COUGH can be treated effectively by the antibiotic, terramycin.

This common and serious childhood ininfection was reduced in the duration of the whoop stage by about 60% in clinical tests at the Charles V. Chapin Hospital, Providence, R. I., where terramycin, chloromycetin and aureomycin were used on comparable cases. All three antibiotics helped recovery and were judged to be of almost equal clinical value.

Terramycin was found also at the University of Washington School of Medicine to be as effective as the other two antibiotics previously reported useful in whooping cough treatment.

Science News Letter, July 21, 1951

INVENTION

Heating System Combines Heat Pump and Solar Energy

➤ A SPECIALLY designed and constructed dwelling which is heated from a combination of the so-called heat pump and solar energy brought patent 2,559,871 to Frazer W. Gay, Metuchen, N. J. The patent covers both the house structure and the heating system.

The building itself has insulated sidewalls so constructed that air may circulate through them, and these walls extend down into the earth below the floor. This earth, directly below the floor, is used to store heat picked up by the heat pump to make it available during extreme cold weather. A solar heat trap, on the south wall of the house, captures radiation from the sun for use as the principal heat for the building.

Science News Letter, July 21, 1951