

TECHNOLOGY

### Room Built for Studying Intense Noise Problems

See Front Cover

► THE ROOM shown on the cover of this week's SCIENCE NEWS LETTER was built at Indiana University for research on problems associated with intense noise.

The walls and floor, made of extra hard and smooth concrete, are set at grotesque angles so that sounds bounce around in all directions, helping to set up rackets similar to those on aircraft carrier flight decks.

Scientists of the University's Hearing and Communications Laboratory are working on problems of speech and hearing in noisy situations, such as those associated with jet aircraft and some industries. Shown in the picture are the laboratory's director, James P. Egan, standing, and research associate Frank Clarke, operating the sound analyzing apparatus.

The research is partly financed by the U. S. Air Force and the Allison Division of General Motors Corp.

One danger to workers around jet aircraft is possible deafness, since the ear can take only so much punishment from intense noise without being deafened. The scientists will try to determine the safe limits of exposure to intense noise.

The ear gradually recovers from the condition known as auditory fatigue, or temporary deafness, but this state can readily break over the borderline into permanent deafness.

Science News Letter, April 28, 1956

ENTOMOLOGY

### Smithsonian Given Termite Collection

► MORE THAN 200,000 TERMITES under glass at the Smithsonian Institution are helping to guard the United States against large scale invasions from foreign species of the pest.

The collection, recently presented to the Smithsonian by the U. S. Department of Agriculture, will provide immediate identification of any foreign termites.

The 230,000 specimens were collected over a period of 41 years by Dr. Thomas E. Snyder, retired Department of Agriculture entomologist. Dr. Snyder reports that termites are found over most of the world outside the polar regions and that many kinds are probably still unknown. There is always the danger, he says, that some foreign species may invade the country and, therefore, a means of immediate identification may prove invaluable.

The collection includes 1,286 distinct species of the approximately 2,000 known in the world. When Dr. Snyder started the project in 1915, the Smithsonian had only 12 identified species.

Contrary to popular belief, termites are more closely related to roaches than to ants.

Science News Letter, April 28, 1956

PHYSIOLOGY

# Study Problem of Vision

► GOOD "DRIVING EYES" do not necessarily depend upon ability to read the bottom line on an eye chart.

A subject's visual effectiveness with a static target, a previous Air Force study indicated, did not necessarily carry over to moving targets. The study was aimed at finding better means of selecting personnel for aerial searches for survivors at sea.

At the University of California at Los Angeles's Institute of Transportation and Traffic Engineering, the relationship of visual factors to moving objects is being investigated.

Test patterns are projected from a revolving slide projector onto a curved "Cinorama-type" screen. Subjects are asked to describe various details of the patterns as they move across the screen.

Experiments are made with the subject's head held stationary and eyes free to move, with the eyes stationary and the head moving, and with both head and eyes free.

Driving a car primarily involves visual relationships between moving objects, the scientists state. Standard eye chart tests, which involve only a static situation, may not reveal other visual factors in driving. The research is designed to establish what these factors are and devise means of detecting driver weaknesses not brought out in present visual tests.

It is conducted by Slade Hulbert and Albert Burg under the direction of J. H. Mathewson. Dr. Henry Knoll serves as a consultant, and David McClinton designed experimental equipment.

Science News Letter, April 28, 1956

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