MEDICINE

New Eye Tests to Aid Workers In the Defense Industries

Depth Perception and Acuity of Vision Are Vital In Many Jobs; Should Be Considered in Selecting Men

NEW EYE tests to protect the vision and speed the efficiency of workers in defense and other industries were announced by Dr. Hedwig S. Kuhn, of Hammond, Ind., at the meeting of the American Academy of Ophthalmology and Otolaryngology in Cleveland.

The tests, a new instrument for giving some of them, and the idea that workers must be selected for jobs on the basis of their eyesight as well as other requirements developed from Dr. Kuhn's study of 16,000 workers in such diverse industries as "chemicals, big steel and little steel, soap, public utilities, textiles, tanks, and even horse shoes."

This is apparently the first scientific study of the demands that modern machinery makes on the eyes of workers.

Five groups of eye defects and their significance were discovered is studies of occupations in which the visual requirements differed markedly. At one extreme of those studied was a crane operator who needed to judge distances 150 feet away; at the other a "looper" in a hosiery factory whose pay envelope depended on her ability to do piece work 8 inches from her eyes.

"To find acuity defects and a lack of depth perception is of vital importance for crane operators, but of no special concern to manual labor," Dr. Kuhn pointed out. "A marked muscle imbalance in clerical workers has been shown to be detrimental to their comfort and efficiency, while an extremely careful study of the five defect groups is essential in choosing or analyzing girls in looping at a distance of 8 inches. For the purposes of industry this type of practical analysis is the basis for deciding where to begin a personnel program of shifting jobs, and an insistence on corrective measures."

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PHOTOGRAPHY

Color Photographs At Night Penetrate Camouflage

COLOR photographs taken from military airplanes at night, which will penetrate the camouflage that might hide military objectives from ordinary reconnaissance pictures, can now be made by the U. S. Army Air Service. Recent tests have demonstrated the practicability of the method.

Though the popularity of color photography among amateur camera users has resulted in a great decrease in the time of exposure required for color film, it is still considerably slower than the fast black and white film used for ordinary aerial photography. Consequently, a vast amount of light is needed to take such pictures in the short exposures that must be given when photographing from the air.

This illumination is provided by flashlight bombs, which are released from the plane, after which they explode a burst of billions of candlepower of light. The flash takes about a sixth of a second, and the camera shutter is synchronized to operate with it. Flashes of various colors can be used to work most effectively with the different types of film. Camouflage that might conceal in light of one color may be plainly revealed in another.

Even for black and white aerial photography, such flashlight bombs have an advantage. The aviator can approach his objective in darkness which greatly reduces his chance of being hit with a projectile from an anti-aircraft gun, or of being seen from defending planes. Then too, the fact that the light comes from a single source may produce shadows which bring objects on the ground into better relief than they appear in the diffused light coming from the entire dome of the daytime sky.

The tests are reported by Major George W. Goddard, photographic expert, who has been in charge of aerial photographic work for the Army for more than 25 years and is stationed at Dayton, Ohio.

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ARCHAEOLOGY

Fear Athens' Fifth Wreck So Relics Are Moved

FEARFUL that Athens may be wrecked for a fifth time in its long history, as Fascist Blackshirts grow increasingly belligerent toward Greece, archaeologists have taken steps to protect the historic treasures unearthed in the old Market Place, or Agora, of Athens.

Objects which the American School of Classical Studies has brought to light in ten years' work at these ruins have been packed for shipment to a small country town, says Dr. T. Leslie Shear, of Princeton University, director of the School and of the expeditions. Records of the work now lie in bombproof shelters.

When Italy entered the war, Dr. Shear found it advisable to cease digging and returned to Princeton. It may be many years, he suspects, before the expedition can return to build a museum for the relics and wind up its excavations, which it expected to complete by 1941.

Outstanding among discoveries just before digging was abandoned is a mysterious collection of nearly 100 pottery-scrap ballots bearing the name of Kallixenos, son of Aristonymous. Like Aristides and Themistocles, this Greek was apparently a notable, among the unwilling candidates for banishment in the voting of 483 B.C. No mention of Kallixenos has been found in history, legend or classical literature.

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