

• New Machines and Gadgets •

⚙️ **UNBREAKABLE** watch crystals are being made from the same transparent plastic used on plane noses, gun turrets and navigation blisters. They are sealed in place, making the timepieces dust and waterproof.

Science News Letter, March 13, 1943

⚙️ **A MICRO-SCALE** with which the toolmaker can see the fine divisions of the scale magnified about four times, will be a useful instrument for workers who have to do close work. An unbreakable plastic lens slides along the scale when it is in use, and folds with the scale so that it can be carried in the pocket.

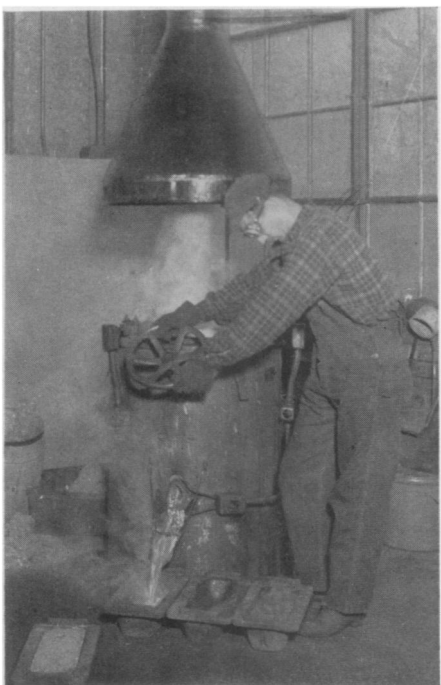
Science News Letter, March 13, 1943

⚙️ **THE PRESSURE** transmitter is a new gauge used in aircraft to indicate to the pilot the pressure on fuel and oil lines at the engines. The instrument, weighing only 15 ounces, is constructed with two chambers separated by a synthetic rubber diaphragm through which the pressure of the combustible fuel is transmitted to a low viscosity liquid and to the indicator in the cockpit.

Science News Letter, March 13, 1943

⚙️ **BY USING** a bottom-pour electrically heated furnace, solder drosses are being remelted to reclaim their tin content, as shown in the picture. A sizable amount of this irreplaceable metal is thus obtained.

Science News Letter, March 13, 1943



⚙️ **A PHOTOGRAPHIC** device to take split-second photographs of liquid spray has been developed, and may be used to make the automobile engine more efficient by measuring the fineness of the droplets in the carburetor. Pictures are taken with it in 10 millionths of a second by means of a high-intensity electric spark from a 5,500-volt spark gap.

Science News Letter, March 13, 1943

⚙️ **CAMOUFLAGE** colors are being standardized with an electronic device that distinguishes 2,000,000 different colors.

Science News Letter, March 13, 1943

⚙️ **A SMALL** animal exterminator to kill rats, mice, weasels and other pests

has just been patented. It causes painless death by electric shock.

Science News Letter, March 13, 1943

⚙️ **AN IMPROVED** motor-driven toothbrush has just been patented. The brush unit is removable and can be replaced when worn out. Proper brushing is promoted by relating direction of brush rotation to the position in which the device is held. A guard regulates the distribution of tooth paste over the brush and protects the tissues of the mouth.

Science News Letter, March 13, 1943

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington, D. C., and ask for Gadget Bulletin 147.

• Just Off the Press •

AIR NAVIGATION—Herbert S. Zim—*Harcourt, Brace*, 324 p., illus., \$3.

AMERICAN PLANNING AND CIVIC ANNUAL—Edited by Harlean James—*American Planning and Civic Ass'n.*, 254 p., \$3. "A record of recent civic advance in the fields of planning, parks, housing, and neighborhood improvement."

A.S.T.M. STANDARDS ON PAINT, VARNISH, LACQUER, AND RELATED PRODUCTS—Prepared by Committee D-1 on Paint, Varnish, Lacquer, and Related Products—*American Society for Testing Materials*, 410 p., illus., 1 to 9 copies, \$2.25 per copy; 10 to 49, \$1.75 each. Specifications, Methods of Testing, Definitions of Terms.

THE BIRDS OF CAPE PRINCE OF WALES, ALASKA—Alfred M. Bailey—*Colorado Museum of Natural History*—113 p., illus., 50c. (Proceedings of the Colorado Museum of Natural History, Volume XVIII, No. 1)

BOOM COPPER: The Story of the First U. S. Mining Boom—Angus Murdoch—*Macmillan*, 255 p., illus., \$3.

THE CHEMISTRY OF NATURAL COLORING MATTERS: The Constitutions, Properties, and Biological Relations of the Important Natural Pigments—Fritz Mayer, translated and revised by A. H. Cook—*Reinhold*, 354 p., illus., \$10.

FISHES OF THE PHOENIX AND SAMOAN ISLANDS COLLECTED IN 1939 DURING THE EXPEDITION OF THE U. S. S. "BUSHNELL"—Leonard P. Schultz—*Govt. Print. Off.*, 316 p., illus., 65c.

FOOD POISONING—G. M. Dack—*Univ. of Chicago Press*, 138 p., \$2.

FUNDAMENTAL PRINCIPLES OF BACTERIOLOGY—A. J. Salle—*McGraw-Hill*, 643 p., illus., \$4. 2d edition.

GERMANY'S MASTER PLAN: The Story of Industrial Offensive—Joseph Borkin and Charles A. Welsh—*Duell, Sloan and Pearce*, 339 p., \$2.50.

GUIDE TO THE APPALACHIAN TRAIL IN THE SOUTHERN APPALACHIANS—*The Appalachian Trail Conference*, 437 p., maps, \$1.75, map cases 75c. 2d edition. (Publication No. 8)

MANUAL FOR OBSERVATIONAL AND PRACTICAL LABORATORY WORK IN ELEMENTARY ASTRONOMY—Oscar Lee Dustheimer—for sale by author, Altoona, Pa., 100 p., illus., \$1.25 students, \$1 teachers.

MANUAL OF DERMATOLOGY—Donald M. Pillsbury, Marior B. Sulzberger, Clarence S. Livingood—*W. B. Saunders Co.*, 421 p., illus., \$2.

MARINE ENGINE AND FIRE ROOM GUIDE—Robert H. Jacobs and E. L. Cady—*Cornell Maritime Press*, 729 p., illus., \$3.50.

THE OBSERVER'S BOOK ON METEOROLOGY—William Alexander and W. J. D. Allan—*Chemical Publ. Co.*, 110 p., illus., \$1.50.

THE OREGON FIBER-FLAX INDUSTRY: With Particular Reference to Marketing—Edward L. Rada and D. B. DeLoach—*Oregon State College*, 86 p., 50c.

THE RING-NECK SNAKES, GENUS DIADOPHIS—Frank Nelson Blanchard—*Chicago Academy of Sciences*, 144 p., \$1.25. (Bulletin of the Chicago Academy of Sciences, Vol. 7, No. 1)

SERVICES TO THE ORTHOPEDICALLY HANDICAPPED—Louis P. Hoyer and Charles K. Hay—*The Trustees of the Widener Memorial School for Crippled Children and the Board of Public Education School District of Philadelphia*, 115 p., illus., 50c., in lots of 10 or more, 40c.

THE SIGHT SAVER—C. J. Gerling—*Harvest House*, 202 p., \$2. Information, alphabetically arranged in dictionary style, on eyes, eyesight, eyeglasses and kindred topics.

SOCIAL WORK YEAR BOOK 1943: A Description of Organized Activities in Social Work and in Related Fields—Russell H. Kurtz, ed.—*Russell Sage Foundation*, seventh issue, 764 p., \$3.25. In two parts. Part II is "a directory of 1110 national and state agencies in social work and related fields."

A SURGEON'S FIGHT TO REBUILD MEN: An Autobiography—Fred H. Albee—*Dutton*, 349 p., illus., \$3.50.

VICTORY VITAMIN COOK BOOK: For War-time Meals—Florence Laganke Harris—*Penn Pub. Corp.*, 185 p., \$1.50.