

# • New Machines and Gadgets •

⚙️ *A NEW TYPE structural board has been made from cottonseed hulls. Its use as inexpensive flooring is shown in the picture. Experiments indicate that the board will take paints and can be sawed and drilled.*

*Science News Letter, December 19, 1942*

⚙️ *DRILLING of marine gear casings has been speeded up by 24 to 32 hours per week at one war plant by means of a new device, called a universal indexing trunnion fixture. This permits quick moving of the casings for drilling at any angle. The apparatus can be rotated like a merry-go-round and also like a ferris wheel, with no more effort than is needed to push a revolving door.*

*Science News Letter, December 19, 1942*

⚙️ *A NYLON paint brush is claimed to wear three times as long as natural bristles. But the manufacturer advises civilians to keep on conserving their old brushes for the duration because the entire output is being used by the armed forces.*

*Science News Letter, December 19, 1942*

⚙️ *REPLACING SPONGE rubber and kapok for important war uses, a new material derives its resiliency and buoyancy from air trapped in cellophane bubbles.*

*Science News Letter, December 19, 1942*

⚙️ *ECONOMICAL WASHABLE paint is now on the market which dries in 60 minutes, needs only one coat, has no objectionable odor, requires only water for thinning, and has a high degree of light reflection. It differs from "water paints" in having a resin and oil-emulsion base.*

*Science News Letter, December 19, 1942*

⚙️ *STEEL SCRAP, to the tune of 647,000 pounds, will be saved by a worker's prize-winning suggestion in one of the big war production plants. A layout man in the welded products section has devised two methods of nesting various segments more closely together so that a greater number of them can be cut from steel plates. The new methods also save time, since a battery of flame-cutting torches can be used to cut out several segments at once.*

*Science News Letter, December 19, 1942*

⚙️ *A CRAYON-LIKE stick recently developed provides a simple means for measuring temperatures. A mark made*



*with the stick becomes shiny when a specified temperature is reached. The new measuring devices are available in the range of 125 to 700 degrees Fahrenheit. Applications include welding, metal working and other heat treating operations.*

*Science News Letter, December 19, 1942*

⚙️ *IRONING RAYON and other cellulose acetate fabrics is less likely to injure them when manufacturers use a new patented process. Besides increasing the safe-ironing point of the material, this process is said to make it more water repellent.*

*Science News Letter, December 19, 1942*

*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 135.*

## • Just Off the Press •

AEROPLANES AND HOW THEY FLY; A First Book for Air Training—Longmans, Green, 44 p., illus., 40c. "Adapted by permission from the book, 'Why Aeroplanes Fly' by Arthur Elton and Robert Fairthorne, in the March of Time Series, edited by Arthur Elton." Clearly written and illustrated book intended for English boys and girls.

AIRCRAFT CARRIER — Robert Alexander Winston—Harper, 89 p., illus., \$2.00.

AIRCRAFT SHEET METAL CONSTRUCTION AND REPAIRS FOR AIRCRAFT MECHANICS AND SHEET METAL WORKERS — M. P. Harrold—F. J. Drake, 158 p., illus., \$1.50.

ARMY FLYER — H. H. Arnold and Ira C. Eaker—Harper, 299 p., \$2.50.

CYTOLOGY AND CELL PHYSIOLOGY—Geoffrey Bourne, ed., Oxford Univ. Press, 296 p., illus., \$6.

THE FIGHT FOR AIR POWER — William Bradford Huie—L. B. Fischer, 310 p.; 20 Biographical plates, \$2.50.

HAWAIIAN PITTOSPOREA; SOME MEXICAN COREOPSIDEAE, A note on Xylosma Hawaiianense Seem — Earl Edward Sherff — Field Museum of Natural History, 123 p., 50c. Botanical Series Vol. 22, publication 522.

HOW TO READ MILITARY MAPS—Roderick Peattie—George W. Stewart, 74 p., illus., \$1.50.

LABORATORY DIRECTIONS IN COLLEGE ZOOLOGY—Henry Lane Bruner — Macmillan, 173 p., \$1.75. 3rd. ed. Textbook.

NAVY DIVER—Gregor Felsen—Dutton, 223 p., \$2.

NOTES ON A COLLECTION OF BIRDS FROM MICHOACAN, MEXICO—Emmet R. Blake and Harold Hanson, Field Museum of Natural History, 38 p., illus., 40c. Zoological Series Vol. 22, publication 522.

THE OBSERVER'S PLANISPHERE OF AIR NAVIGATION STARS—Francis Chichester—Chemical Publishing Co., Chart, 75c.

PRACTICAL ENGINEERING PROBLEMS AND THEIR SOLUTION—F. H. Higgs—Longmans, Green, 48 p., illus., 40c.

PRINCIPLES OF PHOTOGRAPHIC REPRODUCTION—Carl W. Miller—Macmillan, 353 p., illus., \$4.50. Technical. For physics students and serious photographers.

RADIO IN WARTIME—Sherman H. Dryer—Greenberg, 384 p., \$3.

SELL YOUR PHOTOGRAPHS—Eugene Wyble—American Photographic Pub. Co., 167 p., \$2. "A manual for free-lance photographers."

SPEAKING OF MAN—Michael F. Guyer—Harper, 321 p., \$3.50.

TRAIL OF THE MONEY BIRD: 30,000 Miles of Adventure with a Naturalist—Dillon Ripley—Harper, 306 p., illus., \$3.50.

VISIBILITY UNLIMITED: An Introduction to the Science of Weather and the Art of Practical Flying—Ernest G. Vetter—Morrow, 352 p., illus., \$4.

WAR WITHOUT INFLATION—George Katons—Columbia University Press, 213 p., \$2.50.

WARTIME RATIONING AND CONSUMPTION—Economic Intelligence Service of the League of Nations—Columbia University Press, 87 p., \$1.

WAYS OF THE WEATHER—W. J. Humphreys—Jaques Cattell Press, 400 p., illus., \$4.

WHEN I GROW UP I'LL BE A FLYER — Lillian Rifkin—Lothrop Lee & Shepard—41 p., illus., \$1.25. For young children.

WHEN I GROW UP I'LL BE A NURSE — Lillian Rifkin—Lothrop Lee & Shepard, 39 p., illus., \$1.25. For young children.