

• New Machines and Gadgets •

⚙️ **POWERFUL PORTABLE** searchlights with a strength of 110,000 beam candle-power and a weight, including batteries, of twelve and a half pounds, are available for military and civilian use. Objects may be seen a half mile away. The battery cells are made of a transparent plastic.

Science News Letter, October 2, 1943

⚙️ **HEAVY GUN TUBES** made from seamless steel tubing is a war development which saves much time and material. By this method a single production line turns out over 6,000 tubes for 75 and 40 millimeter guns in a month. It replaces the old standard forging method.

Science News Letter, October 2, 1943

⚙️ **MOVIES** of acrobatic warplanes complete with battle sounds provide elusive targets for aviation gunners in training. The photograph shows a gunner learning to keep his sights on the fast-moving plane thrown on the screen.

Science News Letter, October 2, 1943



⚙️ **A DOUBLE-EDGED** razor blade rolled into an open cylinder with the two cutting edges facing each other, together with a special handle and sharpening device, has been patented. It may be pulled or pushed, one edge cutting and the other acting as a guard.

Science News Letter, October 2, 1943

⚙️ **SKI-TROOP FOOTWEAR** with rubber-cleated soles and heels, now in production, provide excellent traction on stone and ice. These new mountain-climbing boots clear themselves automatically of snow and ice and are nearly noiseless in use.

Science News Letter, October 2, 1943

⚙️ **ADHESIVE STICKERS** of paper thickness are replacing thumb-tacks to hold drawings and blue-prints on drafting boards. They are applied without moisture and are easily detached. T-squares slide over them.

Science News Letter, October 2, 1943

⚙️ **NON-REFLECTING** eyeglasses and windshields are made by an improved surfacing treatment. Greater visibility results from its use on show windows and cases, clock faces, and instrument boards. The method can also be applied to large areas of varnished woods, metals or photographs.

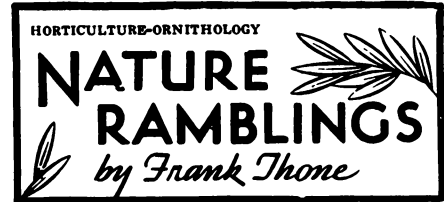
Science News Letter, October 2, 1943

⚙️ **LIFE-SAVING LAMPS** help locate men overboard at sea. They are completely encased in water-proof plastic with transparent red tops.

Science News Letter, October 2, 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 6, D. C., and ask for Gadget Bulletin 176.

Sweden's sixth submarine, especially designed for work in waters around Sweden, has recently been launched.



Planting for Birds

► A LITTLE thought in planning your home grounds will get you birds in winter as well as flowers in summer. When you are setting out your fall planting of shrubs, or thinking of the ones you will set out next spring, it is always well to think of your borders and masses as spare rooms for bird guests. Even a few shrubs of the kinds that afford birds shelter and food will attract interesting neighbors, even in closely settled urban communities.

There are many species of shrubs, attractive in themselves as ornamentals, that are veritable winter pantries for the hardy feathered folk that stay with us through the cold season. Sumac is an old standby; its erect clusters of dry-fleshed fruits are swarmed over by hungry birds whenever snow lies too deep on the ground for them to find the seeds of lower-growing plants.

Fleshier berries in wide variety and a considerable range of interesting color can be set forth to tempt the birds. There is the white of snowberry, and dogwood, the red of honeysuckle, Japanese barberry, and coral berry, the blue of viburnum, wild grape and Virginia creeper. Some of these are so bitter or acrid to the human tongue that we wonder how the birds can eat them; but avian taste does not seem to be the same as ours.

Shelter as well as food is a consideration in setting out shrubs with an eye to attracting birds. Fortunately again, there are many shrubs and small trees that are pleasant to look upon, even in their leafless state, which at the same time are well-branched and twiggy—just the kind of thing birds like as roosting-places and windbreaks. Such

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for example, are the bright-barked osier dogwoods, the yellow-boughed Forsythias, some kinds of ornamental willows, and brown-twigged alder bushes.

Of course, no shrubbery planting is complete without at least a few conifers, among which hemlocks, low junipers and spruces are favorites. All these have foliage so dense that they afford good shelter from wind and snow.

If feeding trays and water-pans are set up to make the place even more attractive to birds, care should be taken that these are not placed so deeply in the shrubbery as to afford ambush to stray cats. Both food and water should be offered on top of posts, preferably with cat-proof guards beneath them, and with some kind of partial roof shielding them from prevailing winter winds.

Science News Letter, October 2, 1943

ENGINEERING

Maritime Commission Receives 2,000th Vessel

➤ OVER 2,000 ocean-going vessels built under Maritime Commission contract since Pearl Harbor is the record celebrated on Monday, Sept. 27, two years from the day the first Liberty ship, the Patrick Henry, slid into the water. Cooperation between scientists, engineers and production men made this unparalleled achievement possible.

The 2,000th vessel since Pearl Harbor is a standard tanker built at the Kaiser shipyard at Portland, Ore. It was delivered with steam up on Sept. 11, and was placed in service immediately in the tanker fleet.

The Oregon Shipbuilding Corporation of Portland, two days later, became a member of the Maritime 250 Club when it sent into service a Liberty ship only 23 days from the laying of its keel. Another Kaiser yard was the first in this club when the Richmond, Calif., plant delivered its 250th vessel on July 19, 1943.

Liberty hips are not named for living persons. They are named to honor outstanding American men and women who accomplished work of nation-wide value in the field of arts, letters and science. The Dwight W. Morrow was launched in Florida on Sept. 19, named in honor of the notable lawyer, banker, diplomat, United States Senator, and sponsor of science as a member of the Board of Trustees of the Smithsonian Institution.

Science News Letter, October 2, 1943

First Glances at New Books

➤ MANY PEOPLE are starving in the midst of plenty, so far as the medical and health services are concerned, because they do not know where to go for free or low cost service in nursing, medical and hospital care or aid in child guidance and mental health problems even when such services are amply provided in the community. To aid the 600,000 or more residents of the Washington Heights and Riverside health districts of New York City, a GUIDE TO HEALTH SERVICES available to them has been prepared by the Washington Heights-Riverside District Health Committee. Although its use will be limited to residents of one section of New York City, the book is mentioned here because it may stimulate civic groups in other cities and towns to sponsor preparation of guides to the medical and health services of their own communities.

Science News Letter, October 2, 1943

➤ GETTING THERE, subtitled The Psychomotivatease, is a little book of jingles about all sorts of animals' means of locomotion, by Robert M. Yergason. (Author, \$1). A sample:

The Myriapoda, fast or slow,
On multitudinous legs must go,
Astonishing though it appears,
There's rhythm in their myomeres.

Science News Letter, October 2, 1943

➤ AVIATORS will find FOGS, CLOUDS, AND AVIATION by W. J. Humphreys a valuable textbook covering these subjects. It is well illustrated with views of cloud forms. (Williams & Wilkins, \$3).

Science News Letter, October 2, 1943

➤ JAPAN: A GEOGRAPHICAL VIEW brings together basic facts concerning the strategic position, physical geography and economic conditions of that country. A number of maps are included. It is a publication of the *American Geographical Society*, prepared by Guy-Harold Smith and Dorothy Good. (\$1.50)

Science News Letter, October 2, 1943

➤ NAVAJO INDIANS, unlike some other tribes, are very chary about adopting white men into their membership. Being an "honorary Navajo" really is an honor. Father Berard Haile, who has spent his whole active life among them, and has been an accepted Navajo for many years, has thus enjoyed an unparalleled opportunity to study the culture of this tribe, about whom everybody has heard but almost nobody really knows anything. In ORIGIN LEGEND OF THE NAVAJO FLINTWAY, he presents us with a detailed and exhaustively documented monographic treatment of one of their important ceremonies. (U. of Chicago Press, \$3)

Science News Letter, October 2, 1943

Just Off the Press

BIOCHEMISTRY OF THE FATTY ACIDS AND THEIR COMPOUNDS, THE LIPIDS—W. R. Bloom—Reinhold Pub., 387 p., \$6. A compilation and evaluation of material on the fatty acids concerning which there is a developing interest due to recognition of their present uses and their value as background for future utility.

ELECTRICITY:—And Its Application to Civilian and Military Life—Charles A. Rinde—Harcourt, Brace, 466 p., illus., \$1.96. A study of electricity for both pre-induction and ordinary classroom use.

ELECTRONIC PHYSICS—L. Grant Hector, Herbert S. Lein, and Clifford E. Scouten—Blakiston, 355 p., illus., \$3.75. A beginners' text in modern electronics.

AN INTRODUCTION TO FOODS AND NUTRITION—Henry C. Sherman and Caroline Sherman Lanford—Macmillan, 292 p., illus., \$2.

JAPAN: A Geographical View—Guy-Harold Smith and Dorothy Good—Amer. Geographical Soc., 104 p., illus., \$1.50, special publication No. 28.

MAN: REAL AND IDEAL: Observations and Reflections on Man's Nature, Develop-

ment, and Destiny—Edwin G. Conklin—Scribner's, 247 p., \$2.50.

NERVOUSNESS, INDIGESTION AND PAIN—Walter C. Alvarez—Hoeber, 488 p., \$5, 3rd ed.

OZARKIAN AND CANADIAN CEPHALOPODS: PART 2: BREVICONES—E. O. Ulrich, Aug. F. Foerste, A. K. Miller—Geological Society of America, Special Papers No. 49, 240 p., illus., \$2.50.

PAPERS FROM THE SECOND AMERICAN CONGRESS ON GENERAL SEMANTICS: Non-Aristotelian Methodology (applied) for Sanity in Our Time—M. Kendig, ed.—Institute of General Semantics, 579 p., illus., \$5. Full report on "The New Basic Methodology of Science" for application to all human affairs, the general semantics of Korzybski. Seventy-three chapters, including sections on "public psychological adjustment" and "reconstruction of education."

PRINCIPLES OF SYSTEMATIC PSYCHOLOGY—Coleman R. Griffith—Univ. of Ill., 718 p., \$4.50. A comprehensive exploration and scholarly appraisal of the field by a professor of education of the University of Illinois.