

• New Machines and Gadgets •

⚙️ **GAUGES** for automobiles which will register directly the miles-per-gallon performance of cars may soon be available. One has been patented which works in connection with the fuel pump.

Science News Letter, October 23, 1943

⚙️ **FLAT LUNCH BOXES** with rounded ends have five compartments for hot and cold, solid and liquid foods, topped with paper lids which can be discarded after use. When the seal-lock cover to the box is closed, food temperatures are held for hours.

Science News Letter, October 23, 1943

⚙️ **TRANSPARENT** plastic V-shaped covers for laboratory water baths are replacing copper covers. Condensed moisture collected on them runs down the sides back into the water instead of dropping into the test tubes in the bath.

Science News Letter, October 23, 1943

⚙️ **AMOUNT** of strategic copper needed to make printing plates is reduced by a third through addition of a new chemical to the electroplating solution. The chemical increases the hardness of the copper deposit so that a thinner layer gives equal service.

Science News Letter, October 23, 1943

⚙️ **IMPROVED SUPERCHARGERS** enable warplanes to rise rapidly in high altitudes. Superchargers force more air, or air and fuel, into engine cylinders than would be induced normally under

the low pressure. The picture shows a supercharger impeller being secured on the left end of its shaft; the turbine at the right will be operated by exhaust gases from the engine.

Science News Letter, October 23, 1943

⚙️ **METHYL ACRYLATE**, chemical ingredient of plastics and synthetic rubber, can now be obtained by an improved method from lactic acid. The parent acid, in turn, comes from fermentation of such farm products as molasses, starch and milk whey. Methyl acrylate has heretofore been produced synthetically. Commercial manufacturers are experimenting with the new lactic-acid method on a pilot-plant scale.

Science News Letter, October 23, 1943

⚙️ **TRANSPARENT PLASTIC** bags protect warplane fuselages during shipment overseas. A single large plastic sheet is wrapped around the fuselage and sealed. When air inside is pumped out, the bag collapses and forms a tight-fitting coat. Moisture inside is absorbed by enclosed bags of silica gel.

Science News Letter, October 23, 1943

⚙️ **SMALL DRILL PRESSES** can be made to perform jobs that otherwise would require more complicated machinery by use of a special electric drive which has a wide range of speeds controlled by a push-button station.

Science News Letter, October 23, 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 179.

• Just Off the Press •

AS THE CHILD GROWS—Helen B. Pryor,—Silver Burdett, illus., 400 p., \$3.

BROWN AMERICANS: The Story of a Tenth of the Nation—E. R. Embree—Viking, 248 p., \$2.75. A discussion of the Negro's share in the life of America by the president of the Julius Rosenwald Fund.

CONCRETE HANDBOOK: Everything you need to know to make use of this universal building material—Pop. Mech. Press, illus., 96 p., \$1.50.

CONTEMPORARY PSYCHOPATHOLOGY: A Source Book—S. Tomkins, ed.—Harvard Univ., 600 p., illus., \$5.

DUNE BOY: The Early Years of a Naturalist—E. W. Teale—Dodd, Mead, illus., 254 p., \$3.

EMERGENT MIND AND EDUCATION: A Study of George H. Mead's Bio-social Behaviorism From An Educational Point Of View—A. S. Clayton—Columbia Univ., 179 p., \$2.35.

GENES AND THE MAN—Bentley Glass—Columbia Univ., 386 p., illus., \$3.50. Facts and principles that aid in understanding the nature of growth, development and aging.

A HUNDRED YEARS OF MEDICINE—C. D. Haagenen, W. E. B. Lloyd—Sheridan, illus., 444 p., \$3.75.

OUT OF THIS NETTLE, DANGER—H. W. Dodds—Princeton, 57 p., \$1.

PAINTING, FURNITURE FINISHING AND REPAIRING: A compilation of helpful articles for Craftsmen, Home Owners, Painters and Handymen—Pop. Mech. Press, illus., 96 p., \$1.50.

PRINCIPLES OF PHYSICAL METALLURGY—Frederick L. Coonan—Harper, 238 p., illus., \$3.25.

RADIOGRAPHIC INSPECTION OF METALS—Otto Zmeskal—Harper, 150 p., illus., \$2.75.

TAXIDERMMY—L. L. Pray—Macmillan, illus.,

91 p., \$1.49. The book is a good manual for the amateur and the hunter or fisherman who desires to preserve trophies and specimens taken in the field.

THE WARTIME COOK BOOK—Alice Bradley—World Pub., 128 p., 49c.

WEBSTER'S BIOGRAPHICAL DICTIONARY—W. A. Neilson, ed.—Merriam, 1697 p., \$6.50. A dictionary of names of noteworthy persons with pronunciations and concise biographies.

WHAT TO MAKE AND HOW TO MAKE IT: Including Homemade Furniture, Ways to Improve Your Home and Garden, Craftwork, Photographic Equipment, Gifts, Toys, etc.—Pop. Mech. Press, illus. 217 p., 50c., vol. 5, 1944 paper ed. only.

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