

• New Machines and Gadgets

⚙️ **DRAIN STOPPERS** are now being molded of plastic instead of rubber. They are clean, light weight, available in all sizes.

Science News Letter, February 20, 1943

⚙️ **PLASTIC BUTTONS** made of melamine formaldehyde have been approved by the Army Quartermaster Corps for cotton garments issued to soldiers. These buttons have high resistance to laundering, decontamination and other severe treatment. This substitution for fresh water pearl and imported vegetable ivory saves money, labor and shipping space.

Science News Letter, February 20, 1943

⚙️ **A VERY SENSITIVE** device for measuring electrical radiation, the Geiger-Muller counter, has a new range of use by the development of a unit scarcely larger than a hypodermic needle. Tests show that it is very satisfactory and especially useful in locating and measuring narrow beams of radiation such as X-rays reflected from crystals.

Science News Letter, February 20, 1943

⚙️ **AN "ELECTRIC EAR"** weighing only two ounces is used to locate and measure "flutter" in an airplane. Flutter occurs when the vibrations of two different parts get together causing too great a vibration, or when the normal vibration in any part is overly increased due to high speed. Flutter has caused the collapse of many test planes.

Science News Letter, February 20, 1943

⚙️ **WOODEN MANHOLE** covers solve the problem posed by a WPB ban on the use of iron or steel in such items. A new cover, such as the one being inspected in the photograph, saves 500 pounds of metal. Thorough tests have demonstrated satisfactory strength and



durability. Pressure treatment with a preservative salts solution provides resistance to termites and rot.

Science News Letter, February 20, 1943

⚙️ **AIRCRAFT CRANKSHAFTS** and other machined parts requiring contour shaping are now being produced at a much accelerated speed by the use of a portable automatic machine tool control. With it standard shapers increase accuracy, speed production, and save manpower.

Science News Letter, February 20, 1943

⚙️ **A NEW FOOT CONTROL** for arc welders is strapped on the foot and is almost as light as a shoe. The welder can move around with it freely, unlike with the use of ordinary foot controls. Arc current is adjusted by pressing down

with the foot. This complete control improves quality of the weld and speeds up work, the manufacturer states. Because the foot control is so easily used, it will be an especial boon to women welders in aircraft plants.

Science News Letter, February 20, 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 144.

PUBLIC HEALTH

Health Service Announces Fellowships for Educators

➤ **TWENTY** fellowships in health education, each carrying a stipend of \$100 monthly for 12 months plus tuition, and leading to a Master's Degree in Public Health at the University of North Carolina, are announced by the U. S. Public Health Service. Funds for the fellowships have been made available to the federal health service by the W. K. Kellogg Foundation.

The object is to train health educators to meet the present shortage of such personnel and an anticipated demand in the future in both this country and abroad. Placement after training is anticipated.

Applications should be sent to the Surgeon General, U. S. Public Health Service, Washington, D. C., by March 1. Courses begin March 20.

Science News Letter, February 20, 1943

Hemp to make Manila rope was successfully grown in the United States in 1942 and seed enough was produced to grow a considerable acreage this year.

ESSAYS ON THE NEW VORTEX ATOM

The purpose of these essays is to refute the assertions of physicists that the Rutherford-Bohr nuclear theory of atomic structure "is hardly more questionable than nearly everything that we accept as certain" (SCIENTIFIC MONTHLY, Aug. 1940, p. 193) and that our confidence in the nuclear theory "rivals our confidence that the planets revolve about the sun." (SCIENCE, Sept. 5, 1941, p. 222.)

Assertions like these would be more convincing if it were not for the anticlimax that nuclear enthusiasts are still utterly unable to draw a single plausible picture or diagram of even the simplest atomic particle, and are prudently refraining from any attack upon the new vortex theory. Their actions speak louder than their words!

Free upon request
C. F. Krafft, 1322 Amherst Ave.
Richmond, Va.

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