

• New Machines and Gadgets •

⚙️ **A NEW GADGET** prevents the annoyance of typing down to the bottom of a page without leaving a decent margin. A little numbered drum is inserted between the turning knob and roller and set to indicate the number of typewritten lines desired. As writing progresses, the drum registers the number of lines written and the lines that you can still get on the page. When the bottom margin is reached, a spring snaps the drum back to the original position.

Science News Letter, December 5, 1942

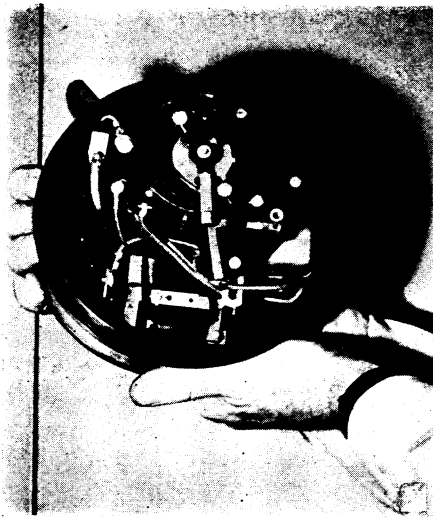
⚙️ **THE NEW OCD** hand fire extinguisher is made almost entirely of non-strategic materials. The pump, instead of being made of brass, is made of porcelain coated steel tubes. Pistons, stuffing box and valves are made of plastics. Old copper valve balls are replaced by glass marbles. Hose is made of reclaimed rubber with a plastic nozzle. The galvanized iron tank holds four gallons of water — the best all-round and most plentiful fire extinguishing material during air raids.

Science News Letter, December 5, 1942

⚙️ **RAYON ROPE** "collars," or seals, have been developed for the shafts of pumps and hydraulic machines, replacing the flaxen rope formerly used for this purpose.

Science News Letter, December 5, 1942

⚙️ **PRIVATE AIR RAID SIGNALS** can be sent to wardens by means of the new device shown in picture, which is plugged into the ordinary house current and operated by a special control board at the power station. Four different audible and visible signals can be sent. After a warning buzz, a visible dial, lit by a small electric bulb, flashes the proper color: yellow for preliminary caution,



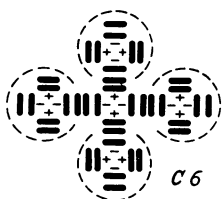
blue for advanced caution, red for air raid, and white for all-clear. The device releases telephone lines for other purposes.

Science News Letter, December 5, 1942

⚙️ **A NEW KIND** of plastic replica for the examination of opaque objects in the electron microscope, showing the surface features in positive instead of negative relief has been developed. An impression of the surface of the object is first made with a plastic that softens with heat. Polystyrene was found best of several plastics tried. Silica is then evaporated onto the plastic mold, forming a thin glassy film which is afterwards removed with a solvent. This replica shows the hills and valleys of the original specimen naturally, instead of the reverse as in all previous replicas.

Science News Letter, December 5, 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 133.



**ESSAYS
ON THE
NEW
VORTEX
ATOM
(Free)**

Carbon atom. Copyright 1942 by Carl F. Krafft.

There are some who maintain that nothing is truly scientific unless it can be expressed mathematically, but the author maintains that no system of atomic structure is truly scientific unless it can be expressed geometrically by pictures and diagrams.

C. F. Krafft, 1322 Amherst Ave., Richmond, Va.

PSYCHIATRY

Signs of Mental Sickness Should Be Taught M. P.'s

➤ **TEACHING** the military police to recognize signs of incipient mental and emotional sickness in able-bodied soldiers is one of the war aims of the National Committee for Mental Hygiene, Dr. George S. Stevenson, medical director of the committee, reported at its annual meeting in New York.

The M. P.'s and also Red Cross workers, physicians in the armed services, company officers, chaplains, USO, Special Services (morale), and instructors are in a position, Dr. Stevenson said, to see the signs of an impending break in mental health and to see that the soldier gets special attention before he reaches the stage of serious mental sickness requiring hospitalization.

"At Fort Monmouth," he said, "a mental hygiene unit has been established as an intermediary station between the able-bodied and the hospital and we have been pleased to lend it such resources as we have in the furtherance of its effort."

Science News Letter, December 5, 1942

BIOLOGY

Awards Established to Further Research on Cells

➤ **CREATION** of two new prize awards for research adding to knowledge of factors affecting the growth of cells with particular reference to human cancer is announced by Dr. William J. Robbins, chairman of the National Science Fund of the National Academy of Sciences.

The prizes are to be known as the Charles L. Mayer Awards.

"One prize of \$2,000 will be awarded for a contribution published in 1942 or submitted in manuscript to the National Science Fund," Dr. Robbins stated, "and a similar prize in 1943. The Charles L. Mayer Awards are a new type of award in that they will be given to further the scientific work of the recipient. They are not only rewards for past accomplishments but are also designed to increase the opportunities of those with exceptional abilities to carry on further research."

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