

New Machines And Gadgets

Novel Things for Wartime Living

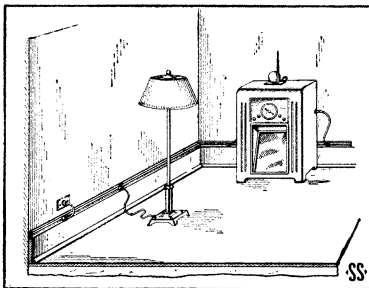
Self-lubricating iron bearings, in place of bronze, save copper and time and attention in oiling small machines and appliances. The bearings are porous, being made of powdered iron, molded to shape and baked and then saturated with oil. Usually the oil reserve lasts the lifetime of the appliance, but for heavy duty or continuous running some additional oil may be required.

Fluorescent material for blackouts can now be had in rolls or by the yard. By daylight it just looks like a good oilcloth. But after exposure to daylight, to black light, or to intense artificial light, it will shine in the dark for many hours. It can be cut out in the form of letters, arrows or lines and pasted or tacked up where desired, or can be sewed to curtains, clothes or other fabrics.

Airplane carburetors have been improved by a new diaphragm composed of a cotton cloth impregnated with synthetic elastic materials. The diaphragm is accurate in dimensions and of a uniform thickness of one-thousandth of an inch. The material is used also for oil seals, valve seats, gaskets, etc.

Concrete forms made of paper are an innovation to speed building construction especially where, as in large cantonments, foundations must be set for many piers and posts. The forms are cylindrical and built up of spirally wound laminated paper just like a mailing tube. They save the time and waste of setting up and taking down wooden forms. After the concrete has set, the paper may be removed with a special tool or it may be allowed simply to disintegrate.

A convenience outlet that really is convenient is shown in the illustration. It extends the one or two outlets the builder has meagerly provided to a continuous strip that may go all around the room, and current taken off at any



point. The live wires are well buried in recesses under overlying insulating strips and can only be reached by the specially shaped prongs of the movable plug. This invention has just been patented.

Phantom-proof traffic lights are a recent development. A visor above the lamp prevents the direct rays of the sun from striking the lens, giving the appearance the lamp is lighted when it isn't. This is called the "Sun Phantom." The new lamp has also a silvered glass reflector in place of the usual metallic reflector.

For patching cement floors in which cracks, holes or ruts have appeared, a new quick-hardening cement has been developed. It hardens overnight and becomes stronger with age. Because of an iron ingredient, it is especially resistant to wear.

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 111.

Science News Letter, July 4, 1942



SCIENCE CLUBS OF AMERICA

Sponsored by Science Service

NEWS OF CLUBS

WILLIAMSBURG, Va.—Nine years ago Carl Gottschalk started a collection of butterflies while but a freshman at high school. Although he has neither bought nor sold specimens his present collection comprises more than 4,000 different butterflies and includes several hundred different species, many of which are rare and valuable. His reputation as a scientist and authority on butterflies has grown along with his collection which includes rare species from

Japan, Germany, Italy, Holland, Latvia, Turkey, Greece, Brazil, Peru, Canada, Switzerland and many other countries.

This absorbing collection of butterflies was exhibited at the Second Annual Convention of the Virginia Junior Academy of Science at Hotel Roanoke, Roanoke, Va. Its exhibitor, now a senior in college, will become a medical student on graduation next month. This shows how far a scientific hobby can be promoted.

The theme of the convention was "Science in National Defense". Science club exhibits set up by Junior Academy members, were viewed with interest as was a special model airplane exhibit set up by the Jefferson Senior High School and a Fisheries exhibit presented by the Virginia Fisheries Laboratory of the College of William and Mary and the Commission of Fisheries.

INDIANAPOLIS, Ind.—Lectures on the application of physical principles to professional and industrial activities are of major interest to members of the Physics Club at Arsenal Technical Schools. This club holds two science congresses and a science fair annually and participates in the annual program of the Indiana Junior Academy of Science. Then, too, there are joint programs with science clubs of other local schools. Something doing every moment seems to be the general plan. The sponsor is Ersie S. Martin, physics teacher.

LAKEVILLE, Conn.—Two or three social meetings with games, songs, and refreshments add sparkle to the activities of the Hotchkiss Chemistry-Physics Club at Hotchkiss School, Lakeville, Conn. At this school one will find photography, medical, weather bureau and railroad clubs, all of which are affiliated through the school's treasury. Demonstrational lectures are delivered to them by students or outside speakers. Individual projects are built and occasional exhibits are arranged. Field trips and science movies round out the busy program. This club is sponsored by William N. Stakely, chemistry instructor.

Clubs are invited to become affiliated with SCA for a nominal \$2 for 20 members or less. You can become an associate of SCA for 25 cents. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.

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AERONAUTICS

Plastics for Airplanes Get New "Mar" Test

A NEW "mar" test has been devised to indicate how well the transparent plastics used for the gun turrets, nose pieces and windows of our airplanes will resist dulling effects of dust, smoke and sand blown against them with great force. The ordinary scratch and hardness tests have been found unreliable indicators of this effect.

The new test, which is much more direct, was described by Ladislav Boor, physicist of the Stamford Research Lab-

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