

New Machines And Gadgets

Novel Things for Better Living

Glass and fire are no longer enemies, states a glass manufacturer. The fireplace hearth may now be made of glass instead of dingy tile. The glass will reflect the firelight and add to the brightness and cheerfulness of the scene. Fluted glass may also be used around the fireplace as a frame.

Pure sponge chromium, a powdered form of the metal, can now be obtained to 99.8% purity even from low-grade domestic ores by a new process recently developed. Its high purity makes it valuable in the manufacture of special steels and in alloys subjected to high temperatures, such as electrical heating elements.

Cellulose sponges, in these days of shortages, may replace rubber and natural sponges. They are said to be just as good—even better. They are highly absorbent, tough, durable, and resistant to chemicals and abrasives. They are soft and pliable when wet, and withstand repeated cleaning and sterilizing.

Bombs are now being produced faster than before by a new process resembling that of the potter and his wheel. But instead of a lump of whirling clay being formed into a vessel by the potter's hands and fingers, a white-hot spinning tube of steel is formed by metal arms and fingers into the nose and main body of a bomb. The tail portion is formed in the same way on another machine.

This is not a piece of blackout material the young lady in the illustration is holding over her left eye. It is a piece of glass as transparent as that of the spectacles she is wearing. In fact, it is precisely the same sort of glass. If she turned it around a quarter turn in its own plane, you would see that her left eye is just as good-looking as her right eye. Thus two transparent pieces of



glass combined in a certain way become as opaque as a blackout shade. The explanation is that this glass allows only light vibrating in one plane, polarized light, to pass. The glare reflected up from the street is vibrating the wrong way to pass the lady's spectacles. But everything else is plainly visible—more visible when the glare is cut out. The glasses are ground to prescription.

Rips and tears in your tablecloths, sheets, shirts or what-nots are easily and quickly mended without lifting a thimble—or needle either—by use of a new resin-treated mending material now on the market. Cut out a piece to size, lay it under the torn place, press it for a few seconds with a hot iron, let it cool—and the job's done. The mending material is practically invisible and will withstand any amount of washing and ironing.

Electric ears as well as electric eyes now protect some of our great war production plants. The wires of an "acoustic fence" are the ears that listen 24 hours a day, guarding every foot of the fence in all kinds of weather, storm, fog or blackout. These ears hear the snip of a wirecutter, the sound of a pick, even the whisper of a person, and transmit the sounds to a watchman who may be located at a central station inside the plant. The fence may also be

used by a watchman to call for help. He has only to tap on the wire and his call will be heard at headquarters. There are no receivers to pick up—the line is always open.

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 101.



SCIENCE CLUBS OF AMERICA

NEWS OF CLUBS

PAYNE, Minn.—In this "backwoods" settlement, about 40 miles from Duluth, Harold Stenbock, teacher, WPA Adult Education, was requested to conduct a class in astronomy in the fall of 1937. Shortly thereafter, "Amateurs of Science" was organized and incorporated under the laws of the state. Early in 1938 work was started on building a six-inch reflecting telescope, and completed about a year later. Then the members of this club cut their own logs in the forest, made their own lumber, built their own observatory.

Today this club has a debt-free observatory with a lecture room seating about 40 people. The building is completed except for the revolving dome for which the members have not yet been able to raise the necessary funds. Conservative estimates value the club's building, as it now stands, at \$700.00. Astronomical studies occupy only part of the time of the members. During the past winter a very extensive program of conservation has been undertaken. Here in a settlement where money is scarce, drama has been unfolded. Here dreams of accomplishment and the will to carry on are rife in spite of adversities. A great deal of credit must go to Harold Stenbock who continues to sponsor this club.

MOREAUVILLE, La.—Immediately after receiving information about forming a science club, the aid of the science teacher was enlisted and the proposition put to the science classes. "It went over with a bang," reports Reginald St. Romain, president of a newly organized "Experimental Science for Youth" club at Moreauville High School. This group has elected Elaine Gremmilion as reporter; she regularly supplies news to the three local newspapers read by the students. Levette P. Doufour, science teacher, is the sponsor.

Every science club can readily justify the office of "reporter" or "public relations council". It is a good practice to let others know what you are doing; tell others that science club work is serious, educational and likely to prove essential to America's war program. You are doing something of which you justly can be proud.

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