

New Machines And Gadgets

Novel Things for Wartime Living

Million-volt X-ray outfits of the compact portable type recently developed for industrial use are going almost into mass production. In the one short year since the first of these outfits was produced, 40 of these machines have been built. They can look through eight inches of steel in a few minutes, an operation previously requiring many hours, thus speeding up our war industries and making their products far safer.

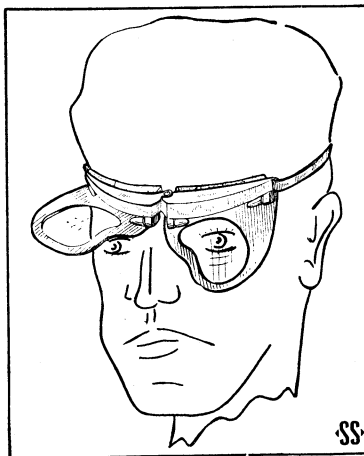
Stainless-clad steel can in many instances replace solid stainless steel, thereby effecting a considerable saving of the latter for the war emergency. The thin layers of stainless give all the desired corrosion resistance. Stainless-clad sheeting has also been used in place of brass sheeting, thus effecting savings in a still more strategically valuable material.

An expansible dynamite cartridge obviates the necessity for slitting the wrapper—a sometimes dangerous operation—in order that the powder may spread out and fit the hole tightly when tamped. The new cartridge has a line of perforations in the inner wrapper extending spirally around the stick. When pressed with the tamping pole, the expanding powder tears between these perforations, the paper unwraps slightly and telescopes as the length of the cartridge is shortened. No powder is spilled, as happens with a slit cartridge.

Metal blackout awnings afford an ever-ready means of instantly blacking windows out completely and at the same time protecting the glass from flying debris. The awning is made of metal segments that telescope into small space when the awning is raised. When pulled halfway down, it serves as any other awning. When pulled all the way down, it covers the entire window in a semi-cylindrical form. Flexible gaskets prevent leakage of light between the segments. The curved outside surface prevents telltale reflection from the moon or other outside light.

The old tin grater can be added to the tin cans in your scrap collection heap. A plastic grater of transparent cellulose acetate can now be used—and looks better too.

Goggles for hot weather are shown in the illustration. The goggles, which are of the kind that can be individually turned up out of the way, are combined



with a sweatband in this newly patented invention. Thus perspiration is prevented from running down into the eyes or onto the glasses. To make more sure of this, the hollow channeled pieces above the glasses are stuffed with an absorbent material which can be renewed from time to time.

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 112. Science News Letter, July 11, 1942

ANTHROPOLOGY

Ainu of Northern Japan Only Remotely Related to Us

JAPAN'S persecuted "white race," the hairy Ainu of the northern island, are not very closely related to the white peoples of Western lands, Academician L. Stenberg, noted Russian anthropologist, states in studies received by the Smithsonian Institution. Instead, they belong to a general "Caucasoid" complex shared with various peoples of southern Asia and Indonesia. They may even have some vague relationship to the bearded black natives of Australia, despite an almost exactly opposite difference in skin color.

The Ainu, who contrast sharply with the Mongolian race in their general hairiness and especially in their long, grandfatherly beards, live very primitively in the small area into which their Japanese oppressors crowd them. Despite their northern location, they keep many of the habits of a southern, seafaring people. The men go about in summer wearing only breechcloths, and some of their cultural practices resemble those of Polynesia.

Science News Letter, July 11, 1942

A newly discovered meteor crater contains an estimated six to seven thousand *meteorites*, with a total weight of about six tons.

FIRE!

DEEP-ROOTED in the customs of primitives, is the desire to set fires. Forest fires are often started by ignorant people who follow a tendency almost like fire worship. Even in the United States, a great many devastating forest fires are set by people of the region who are dominated by superstition rather than by science.

A unit of "THINGS of science" explains such superstitions and other psychological causes of fire-setting. It tells you how to allay them with such psychological fire-fighting equipment as posters, buttons, fagbags. Psychologists "fight fire with fire" by starting superstitions that fires are "bad luck."

This unit of THINGS of science discusses the problem, tells you what to do about it. Fire-fighting, especially in our forests, is a battle on the home front, and one that should go on continuously.

As in all units of THINGS of science, this unit contains specimens of scientific material to be examined, studied, and enjoyed. Museum-style legend cards are supplied for each science object; a brief, clear explanation of the entire contents is included with suggested experiments. This service is under the sponsorship of Science Service, the non-profit institution for the distribution of scientific information.

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