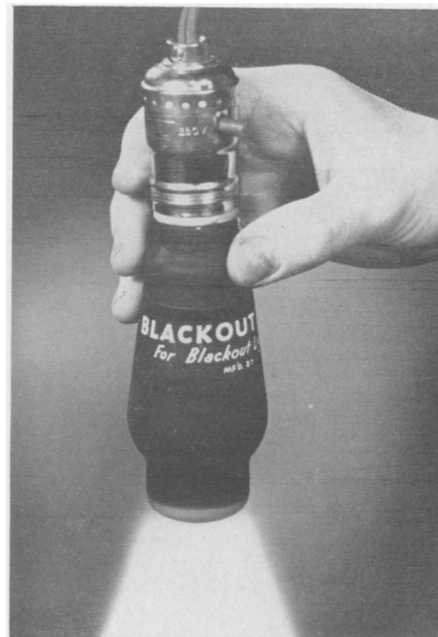


alloys and stainless), tin and zinc. The coating metals may be stainless steel, high carbon steel, hard steel alloys and non-ferrous alloys including the cobalt-chromium-tungsten alloys which at 1100 degrees Fahrenheit are harder than all known alloys except the tungsten carbide group.

Science News Letter, February 21, 1942

New Machines And Gadgets

Novel Things for Better Living



If a thermite incendiary bomb falls in a factory containing expensive, delicate machinery, powdered graphite may be used instead of gritty sand to control the flames. A special powder, said to be even better, is also made for this purpose by a chemical company. It is almost impossible to extinguish a thermite bomb. The main problem is to keep the fire from spreading. This may be done by rolling the bomb with a long-handled shovel onto a bed of sand or other smothering substance and then covering it with more. This is the method recommended by Asa H. Nuckolls, chemical engineer of Underwriters' Laboratories.

Fuel briquettes of straw burn slowly and give an intense heat. But until now they have been difficult to produce because the glossy surfaces of both the outside and inside of the straw prevented the chopped up pieces from sticking together. This difficulty has been overcome in a recently patented invention by grinding the straw down to a powder, drying it at high temperature and then compressing it into briquettes while still hot.

A blackout bulb with a silver lining is shown in the illustration. The inside coating of pure silver reflects the light downward and an outside coating of

black silicate down to the extreme lighting end of the bulb insures that no trace of light escapes through the sides. The end of the bulb is a deep blue. The lamp consumes 25 watts and despite its silver lining is very inexpensive.

Aiming a pistol without raising it to the level of the eye is made easy by a recent invention. The pistol is provided with a groove along one side of the barrel in which the extended forefinger may be laid. Thus the pistol is aimed by merely pointing the finger.

Keep the flag flying! This can be done even when there is no breeze by means of a hollow flag pole into the base of which compressed air is admitted. A slit near the top of the pole and behind the flag allows the air to issue in an artificial breeze that keeps the flag distended. A patent has been granted for this invention.

Handkerchiefs, when disposable tissues became popular, were carried more or less for ornament. For this purpose, only a small portion of a man's handkerchief shows above his breast pocket, perhaps neatly folded to display the four corners. Conservation of the material not in these corners is the idea behind a patent recently issued. The invention consists of a flat sheet to the top edge of which is attached "a preformed show-kerchief."

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 92.

Science News Letter, February 21, 1942

Milk and cream represent about 20% of the food consumed annually by the average American, says the Milk Industry Foundation.

METALLURGY

Magnesium Extracted From Dolomitic Limestone

MAGNESIUM, lightweight metal needed in ever-increasing quantities in the airplane and munitions industries, can be produced from dolomite, a widely distributed and very common form of limestone, by a new process just patented by N. R. Collins of Los Altos and G. H. Gloss of Belmont, Calif.

Essential steps in their process are introduction of carbon dioxide under pressure at one stage, and heating to a high temperature, under vacuum, in the presence of calcium carbide, at the concluding stage. This thermal reduction process brings out part of the magnesium as pure metal; the residue, consisting of a mixture of the oxides of magnesium and calcium, is dumped back in with the raw dolomite, to repeat the process.

Rights in the patent, No. 2,271,626, have been assigned the Marine Magnesium Products Corporation.

Science News Letter, February 21, 1942

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