

INVENTION

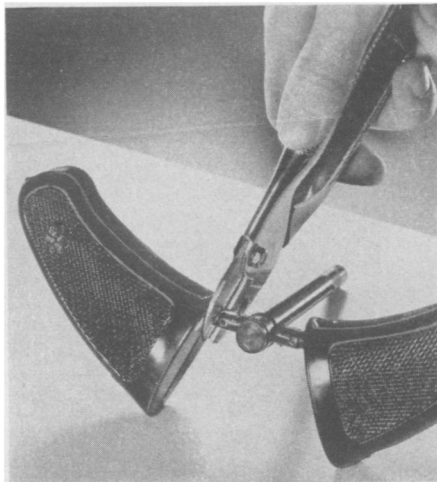
## New Machines And Gadgets

### Novel Things for Better Living

Steam heat without connection to a central boiler is provided by a portable radiator that has just been patented. It looks much like any other steam radiator except that it is of much lighter construction. It has its own boiler, extending along the lower portion, which contains a small amount of water electrically heated. It should be useful at places where, or at times when, the regular heating system is inadequate or out of order.

The baking qualities of dough appear to depend on a number of factors usually associated with building materials and machinery, such as viscosity, elasticity and breaking strength. These in turn are related to the water content. In order that our bakers may produce bread of uniform quality, apparatus has been invented and recently patented for quickly measuring these quantities. First the rate at which the dough can be pushed through an aperture under a standard pressure is measured. This gives the viscosity. The rope of dough thus formed is then tested for its elasticity and tensile strength—in the same way that a steel bar is tested.

Plastic pistol handles like those shown in the illustration are molded in pairs and afterwards cut apart. This is much faster and more economical than the old-



style wooden handles. The grip is rugged and the plastic used has a higher impact resistance than any other plastic.

A portable bookcase, desk and drawing board that fold up in the shape and compass of a suitcase are all combined in a recent invention. When hung up to the wall, the lid folded down forms the desk or drawing board. Inside are bookshelves, pigeon holes, even an electric light to illuminate your work. The engineer, working in the field, can carry it about with him everywhere and hang it up on any convenient tree, fence, or billboard. Of course, a portable nail should also be carried to hang it up with.

Water repellent jackets are now being issued to Army men. The jackets are made of closely woven cotton poplin, lined with wool where added warmth

is required. The cotton is chemically treated at the mill with a water repellent, which also resists spots, stains and perspiration. Non-greasy spot and even soup spills can be sponged off with a damp cloth, or washed away with a dash of water which the cloth sheds. Yet unlike rubber or leather coats, the new garment allows the body to breathe. It is durable and can be repeatedly dry-cleaned or laundered.

Crackling electric discharges when combing your hair on dry winter mornings can be avoided by use of a comb made of electrically conducting rubber, recently patented. The rubber is made electrically conducting by incorporating with it a considerable amount of carbon black. Tires of electrically conducting rubber have been proposed as a means of preventing the accumulation of static charges on motor vehicles.

For pencils and fountain pens, a clip that securely clamps to the pocket has been invented. The end of a small protruding wire must be pushed to open the clamp which otherwise stays tightly closed. Though positive in action, this improved clip is not unduly complicated.

Fire resisting textiles can be made by treating cloth with ammonium sulphamate. This chemical, once a laboratory curiosity, is now in mass production for war purposes. Cloth treated with the chemical will char in flames but will not blaze and will therefore not spread the fire.

*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 90.*

*Science News Letter, February 7, 1942*

CHEMISTRY

### “Vegetable Ivory” May Be New Stuff For Buttons

THIS year's answer to that old question, “button, button, who's got the button?” is likely to be Ecuador, producer of tagua nuts, called “vegetable ivory.”

Foreseeing a shortage in usual button materials, including plastics, the U. S. Army has announced a purchase of 2,592,000 “vegetable ivory” buttons. They can be used for all soldiers' garments except those requiring metal buttons..

Intensive tests showed tagua nut buttons able to withstand cracking under pressure, and intense heat, remain colorfast after numerous washings and blazing artificial sunlight.

Ecuador exporters say that they have surplus stocks of the tagua nuts due to their war-reduced shipping.

*Science News Letter, February 7, 1942*

An animal about half the size of a rabbit, called a *dassie*, is the closest living relative of the elephant.

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