

## ● RADIO

Saturday, May 16, 1:30 p.m., EWT

"Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. Harry Grundfest, national secretary of the American Association of Scientific Workers, will discuss some of the things science can do and should do in connection with the war effort.

Tuesday, May 12, 7:30 p.m., EWT

Science Clubs of America programs over WRUL, Boston, on 6.04, 9.70 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in the high schools, throughout the Americas. Have your science group listen in at this time.

### PHYSICS

## Warbling Siren Proposed as Distinctive Air Raid Warning

A SIREN that warbles like a bird was proposed as a distinctive sound for air raid warnings that would readily be distinguished from the ordinary sirens on fire-engines, police wagons and ambulances, and from all the other horns and whistles that clutter up the air of a big city.

The proposal is made by Dr. Grant Hector and other scientists of the University of Buffalo, who were searching for a sound of greater attraction and less scare value.

The proposal was just a byproduct or possible application of a method devised by these scientists of varying the capacity of an electric circuit by remote control, without the use of interleaving condensers or any other mechanical moving parts. The scientists found that a fixed condenser in series with a variable resistance would do the trick. For the latter they used an ordinary radio tube. The resistance of this was varied by impressing a varying signal on the grid of the tube, which was done with the aid of an electric oscillator. This could be regulated to give from one to nine quavers per second, affording a wide variety of effects.

Science News Letter, May 9, 1942

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## New Machines And Gadgets

### Novel Things for Better Living

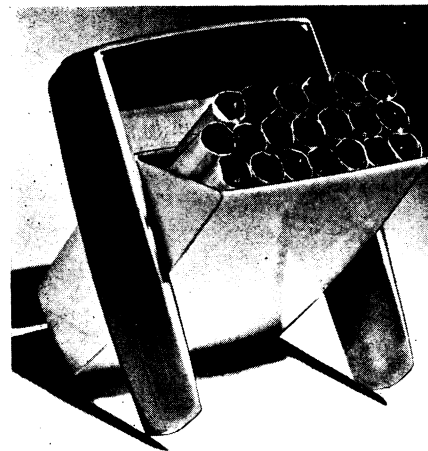
Picking up stones from a plowed field would be backbreaking exercise indeed. Fortunately there are machines for doing the job. A recently patented machine scoops up the earth, separates out the rocks and hoists them into a following trailer. The remaining earth is sifted back onto the ground. The machine can also dig up potatoes or other root vegetables.

Low temperature tubing, that remains flexible at 58 degrees below zero Fahrenheit—at which temperature rubber becomes quite brittle—and which maintains its electrical resistance at this low temperature, has been developed especially for high-flying airplanes. It is made of a transparent plastic whose strength, toughness and rubber-like qualities make it useful for a variety of industrial and electrical applications.

Non-metallic shielding for radio tubes, in place of the usual tin cans and metal partitions for the set, can be provided in the following ways. One part of concentrated colloidal graphite is diluted with two parts of distilled water and painted or sprayed directly on the glass tubes. This forms a conductive coating. Ground connection is made by a loop of wire around the tube. Or ordinary cardboard mailing tubes may replace the tin cans. In this case the colloidal graphite should be diluted with ten parts of distilled water and several coats applied and allowed to soak in. In the same way conducting cardboard partitions may be prepared.

A prehensile screwdriver that will pick up a small screw and a washer and neatly insert them in the place where they are to go has recently been patented. Conversely, with its long shank, it will extract a screw from an inaccessible place and hold it until the operator wishes to release it. This screwdriver does not depend on magnetism, but on a clamping device that is operated from the handle.

A coffee maker of the dripolator type in which the hot water goes up through the handle instead of up through a tube in the middle, is the subject of a recent patent. The handle is also provided with a hinge so that the coffee basket can be turned up out of the way, when the dripolating is finished, and the middle vessel containing the coffee can be removed. The basket can then be returned to its former position and any further drippings from it will fall into the hot water container below. This solves the problem of the usual glass coffee maker of what to do with the top part after the coffee is made.



The cigaret case shown in the illustration can be carried in the pocket and then opened out like an easel and stood up on the table, with the cigarettes in easy reach. It is made of a lightweight lustrous plastic and comes in a variety of two-color combinations. It is ornamental as well as useful.

The perfect electric iron has perhaps arrived. Not only is the temperature automatically maintained constant and uniform while ironing, with a choice of three or four temperatures controlled by a knob, but complete insurance against the hazard of fire is now added by an invention just patented. The new device cuts off the current completely if the iron should be inadvertently left standing in the horizontal or ironing position. The device does not work if the iron is left standing upright on its heel stand. And, too, it does not work if the iron, though horizontal, is kept moving back and forth in the process of ironing. The device is packed into the body of the iron along with the temperature control mechanism.

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 103.

Science News Letter, May 9, 1942

Except for a higher concentration of magnesium and a lower concentration of potassium, sea water has the same mineral composition as blood serum.

Greek "incendiary bombs," probably a mixture of petroleum and quicklime, kept invaders from Constantinople for a thousand years.

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