## · New Ideas and Gadgets ·

For sources of more information on new things described, send a self-addressed stamped envelope to SCIENCE NEWS LETTER, 1719 N St., N.W., Washington 6, D. C., and ask for Gadget Bulletin 1107. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

MOISTURE METER, weighing four ounces, is a practical aid to gardeners that instantly tells when and how much to water lawns, house plants and shrubs. The meter, inserted into the soil by means of a prong attachment, indicates wet, moist or dry, showing the amount of deep-root water present.

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RING BARB NAILS have deep annular grooves with a holding power superior to smooth shank nails. In home construction, they assure squeak-proof floor sheathing free from buckling and nail pops, with fewer nails per board required. The nails are also suitable for applying cedar shakes and siding, and for crating and pallet making. They are available in different sizes and finishes.

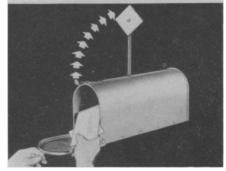
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FIRE ALARM that detects fires before they can spread dangerously, is entirely self-contained and operated by two standard flashlight batteries. The alarm, which sounds when temperatures reach 135 to 140 degrees Fahrenheit, can be heard one-fifth of a mile away. Only 2¾ by 5½ by 1½ inches in size, it can be hung on any wall like a thermostat.

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MAIL SIGNAL, shown in the photograph, consists of a 3-by-3-inch, bright

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yellow, metal square fastened to an eightinch rustproof coil spring. It is attached by a nut and bolt to the box top. In use, the signal is pulled toward the box door and a corner inserted between the edge of the door and the box. When box is opened, it springs up to signal arrival of the mail.

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AUTOMOBILE MODELS SET features a computer that enables the user to design

and build over 25,000 different plastic automobile models. Containing enough parts to build two complete cars, 14 inches long and 4 inches high, at one side, the model can be snapped together and taken apart at will. Reusable decals for customizing the models are included.

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BOOK PRESERVATIVE restores old and prized leather, cloth and paper bound books. A clear solution containing no dyes, it is a penetrating fluid absorbed into the surface which can then be waxed or polished. One pint will treat about 25 books.

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SELF-ADHESIVE URETHANE FOAM is pressure-sensitive and adheres to any clean, dry surface after removal of its paper backing. Resistant to water, oils, chemicals, mildew and termites, it is useful in weather stripping and a variety of cushioning, insulating and sealing applications, for both home and industry. It is available in various sizes, shapes and colors.

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CARTON-SIZER quickly and efficiently reduces the size of a corrugated shipping carton too large for its contents. By scoring the sidewalls of the carton, the hand tool permits folding the top down to the desired depth.

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## Nature Ramblings



## N Do You Know?

TURTLES in general are among the strangest animal anomalies that have been evolved in the course of nature. They are the only surviving reptiles with anything like a complete external bony armor, although the horny plates in the alligator's skin recall the days of the Mesozoic era when armored animals were more common.

Turtles have no teeth, but a horny-edged beak, like that of the birds. Before they are hatched but just about to break out into the world, young turtles show another relationship to birds—the beak ends in a pronounced knob that resembles a single saw tooth sticking up on the beak. It is useful in breaking the shell and soon after hatching it disappears.

Probably the most violent-tempered of the turtle tribe is the snapper, noted for fierce persistence in hanging on to an object once it has been gripped. Various species of snapping turtles are distributed throughout North America, from Canada to Panama. Although they never approach the size of the huge tortoises of the sea, some of these snappers become formidable enough,

Turtles



attaining a length of three feet and a weight of 40 pounds.

Within a few weeks turtles of all kinds will begin plodding across the half-dried marshes and fall-plowed fields to search for a very important spot. The time is approaching when turtles, like all reptiles, must get underground for a few months, and each must seek suitable winter quarters. When they find the right place, they will dig down and disappear for the duration of winter.

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An artificial *rumen* which duplicates as nearly as possible in the laboratory the conditions which occur in the stomach of the living cow or sheep has been devised to help in determining the nutritive value of forages.

A tiny piece of glass, no larger than a quarter-inch segment of pencil lead, serves as a "watchdog" to warn doctors and scientists against excessive exposure to radiation.

The *blood* and certain tissues of animals spontaneously "cured" of transplanted cancers contain cells that arrest the same cancer in other animals.

In 1960 for the first time in history more cotton was harvested by machines in the United States than by humans.

The *firefly's* glow is being used to make some of the first direct observations of the fuel system of the heart.

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