• New Machines 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 959. To receive this Gadget Bulletin without special request each week, remit $1.50 for one year's subscription.

HEARING AID attached to eyeglasses transmits sound through the mastoid bone into the inner ear. Nothing is worn in the ear itself. A new self-adjusting sound plate on the hearing aid temple bar eliminates the need for cords, wires, ear buttons and molds.

Science News Letter, November 1, 1958

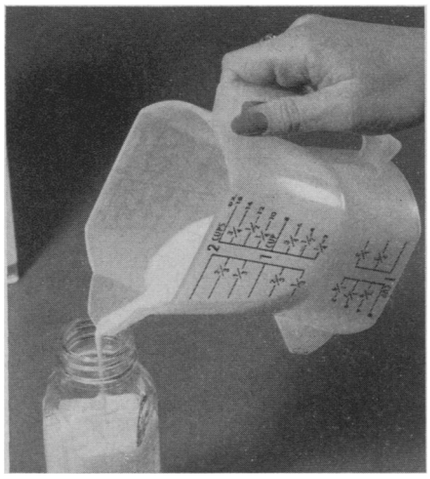
ELECTRICAL OUTLET COVERS keep children from tampering in this dangerous home area. The plastic covers are screwed into place over the outlets and are hinged so that they may be swung open for insertion and removal of electric plugs. The hinged lid is fastened shut by friction catches.

Science News Letter, November 1, 1958

AQUATIC MOUSETRAP can, with one setting, catch more than 100 mice. The mouse is enticed into the steel trap by smell of food in an inaccessible chamber. Searching for the food, it passes through a series of ramps and dumping mechanisms actuated by its own weight. Finally, it falls into a water chamber. The trap is 15½ by 3 by 15 inches and weighs 12 pounds.

Science News Letter, November 1, 1958

DOUBLE-ENDED CUP measures liquids and solids. Made of plastic and including a common handle, the combination cup,



shown in the photograph, may be used for liquid and dry measuring. One end is a two-cup measure and the other is a one-cup measure. Each side is marked in fractional cups and ounces.

Science News Letter, November 1, 1958

SPOUTING WHALE bathtub toy has a nylon-geared motor with a permanently attached key. It is 10½ inches long and is made of plastic. A flapping tail drives the toy and an internal pump spouts water at the same time.

Science News Letter, November 1, 1958

KEY HOLDER can hold up to 16 keys identified by tabs. It closes like a book and measures 4½ by 6 inches. Each tab has a transparent cover under which is inserted an identification card. There are eight tabs, each holding two keys.

Science News Letter, November 1, 1958

ROOM VENTILATOR-FILTER fits into windows. A plastic foam filter provides draft-free, steady flow of air into rooms and removes 79% of airborne dirt and dust. The aluminum ventilator is seven inches high and fits a standard window 18 to 35 inches wide. The filter rinses clean under running water.

Science News Letter, November 1, 1958

LENTICULAR SCREEN SURFACE permits projection of slides and movies in normally lighted rooms as well as darkened rooms. It has a silver surface and holds its brightness over an area as wide as 120 degrees. The surface is truly lenticular because it combines both vertical and horizontal grooves, thus controlling light reflection in all directions. The screen comes in four sizes.

Science News Letter, November 1, 1958

Nature Ramblings

By HORACE LOFTIN

Tree Trunk Secrets

➤ CHILLY AUTUMN is here in full force and winter is hard on her tracks.

The frost has seared the summer's greenery. Throughout much of the nation broadleafed trees have had their day of riotous color. Now their leaves are falling to cover the earth in a blanket for nature's winter sleep.

These are the external signs of winter's nearness. There are also internal, hidden signs.

During the summer, our trees added measurably to their girth by regular growth. Now this has largely ceased, and a layer of harder wood is forming to mark where the season's growth came to a halt.

In most cases, one such growth ring is laid down for each year of a tree's life. So if the year is known in which a tree is cut, its age can be determined merely by counting the number of growth rings in a cross section of its trunk.

(This, of course, holds true only where there is a sharp division between the growing and resting seasons. In many areas of the country, there may be some growth every month of the year to complicate the picture.)

These growth rings are far from being all of the same width. From one ring to the next, they may vary anywhere from extremely narrow to very broad, depending on the kind of growing seasons the tree encounters. In good growing years, the growth rings are broad; when the summer is dry or cold, the ring is proportionately narrower. Therefore, a tree trunk keeps a permanent annual record of the weather it has known throughout its life.

All the trees in a given area tend to show the same relative differences in width of growth rings laid down in identical years. If you have a distinct pattern of growth rings in one of these trees, you should be able to locate a similar pattern in another of the trees. Then, if the age of one of these trees is known, it is possible to date the years in which that special ring pattern was laid down. By counting from this pattern in the other tree, the second tree's age can be determined.

By tracing growth ring patterns backwards through trees of greater and greater age, then to the patterns of hewn beams of prehistoric Indian dwellings, scientists in the American Southwest have been able to date these ancient timbers as having been cut by the Indians are far back as 11 A.D.

Science News Letter, November 1, 1958