

# • New Machines and Gadgets •

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❁ **MASONRY WATER REPELLENT** can be diluted with plain mineral spirits and works as well on mortar as on brick or concrete. The new repellent is clear and is expected to give five years' protection, as do other repellents of the silicone family.

Science News Letter, January 17, 1959

❁ **BI-FOLD HARDWARE SETS** are designed to make bi-fold door mounting, adjustment and removal a one-man operation. The surface-mounted hardware set is for closets, and for plywood or particle board doors  $\frac{3}{4}$  inch to  $1\frac{1}{8}$  inch thick. The concealed hardware set is best for one-inch to  $1\frac{1}{8}$  inch thick passageway doors. Doors will work even if misaligned one inch.

Science News Letter, January 17, 1959

❁ **MOTOR HOLDER KIT** adapts two power tools to take the same motor. A receiver plate is attached to each tool, and a base plate is fastened to any motor under one horsepower. The motor is moved by unscrewing wing bolt and slipping motor out of holder. Wing bolt is re-tightened when motor is positioned on the other machine.

Science News Letter, January 17, 1959

❁ **FISH-HOOK BOOT**, a small polyethylene plastic cylinder, shown in the photo-



graph, slips over individual barbs to keep points sharp, prevent tackle tangling, and make hooks safe to handle. The boot is squeezed between finger and thumb for easy removal.

Science News Letter, January 17, 1959

❁ **FOOT-OPERATED MARKER** for production lines prints at high speed on metal, plastics, linens, wood and fabrics. It is said

to work on curved surfaces and uses rubber or brass dies or type, or metal logotypes.

Science News Letter, January 17, 1959

❁ **LOW-FRICTION BEARING** is a strong plastic and cotton yarn fabric impregnated with phenolic resin and is said to obviate lubrication. For light or heavy use, the bearings resist heat up to 350 degrees Fahrenheit, as well as alkalis, acids, and salt-water corrosion.

Science News Letter, January 17, 1959

❁ **REACTION KETTLES** of an all-glass, heavy wall construction resist heat and corrosion and are designed for drug and chemical production in batch sizes between laboratory and pilot plant volumes. The 5-, 10-, and 20-gallon kettles range from 12 inches in diameter by 16 inches in height to 18 inches by 26 inches. They are designed for use with multi-zone heating mantles.

Science News Letter, January 17, 1959

❁ **SPECIAL WELL-CENTER CAR** for standard 0-27 gauge model railroads is a close copy of real-life railroad car used by a heavy equipment manufacturer. The model car comes loaded with a plastic replica of a big shell of a condenser used to condense steam in power plants.

Science News Letter, January 17, 1959



## Nature Ramblings



By BENITA TALL

► WHEN YOU think of birds and their nests, those remarkable constructions of twigs, leaves, feathers, hairs and hundreds of other things, you think of springtime usually.

Leafy trees, tiny speckled eggs, parent birds hurrying to feed their young—all are associated with nests in the spring. Yet it is in the autumn and winter that birds' nests lose their anonymity. It is then that you can see details of shape, size and make-up newly exposed to view.

A walk through a marsh in winter or a woods where the trees have been stripped down to their bare branches will reveal birds' summer nesting sites by the dozens. Even if you are expert at identifying by sight the bird who built the nest, you may have a difficult time telling the name of the builder when he is no longer around.

### Winter Nests



Sometimes, however, it almost seems that the nest goes with the "personality" and looks of its maker.

Thus the bright yellow and black Baltimore oriole has the more exotic hanging nest, usually gourd-shaped with an inside depth greater than two inches, while the every-day robin builds a thick, mud-walled nest in a tree.

The crow builds itself a rough, bulky home. Made with sticks and twigs, the cup-shaped nest is lined with bark, grass, moss and roots. Ranging from one to two feet in diameter, this nest is usually built high in a tree, more than 30 feet up.

If, among some buildings or rocks, you see a gourd-shaped nest made with mud as the outer layer, you are pretty safe in saying a cliff swallow built it.

In sharp contrast to this nest are the dwellings of the yellow warbler, the redstart and the goldfinch. These are all cup-shaped, "felted" nests of cottony materials. While the cliff swallow's nest has a scanty lining, these birds line theirs with plant-fluff, fine grass, thistledown or hair.

Nest-hunting in winter can be an exciting adventure. Even the flicker's nest, an unadulterated hole in a tree, is somehow seen anew, simplified and fresh, without the trappings of spring.

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