

# • New Machines and Gadgets •

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**STUD FINDER** consists of four tools in one—a strong magnetic stud finder, a magnetic compass, a magnifying lens and a plumb bob. It may be used for hanging pictures, mirrors and shelves, and for locating pins or other metallic objects on rugs or in auto tires. It may also be used to hang wall paper and magnify small objects.

Science News Letter, February 20, 1960

**LAWN EDGER** cuts grass along sidewalk edges neatly and rapidly. Operable with no digging, stooping or hand trimming, the edger has tubular steel handles, plastic grips, semi-pneumatic tires, cast iron gears, frictionless bearings and self-whetting blades of tool steel.

Science News Letter, February 20, 1960

**CAMERA-TO-BINOCULAR HOLDER** attaches easily to both camera and binoculars for taking low-cost, long-distance photographs. The 10-inch holder is finished in gray crinkle and bright chrome and can be mounted on a tripod. Rubber guards attach the binocular eyepiece to the camera and avoid extraneous light.

Science News Letter, February 20, 1960

**POCKET SAW**, shown in the photograph, easily cuts through lumber, tree branches, and plastic, yet can be rolled up and carried in a pocket. It consists of a thin



wire of durable cutting teeth made of steel. A finger ring is attached to each end for pulling the saw back and forth over the material to be cut.

Science News Letter, February 20, 1960

**BODY THERMOMETER** has a 1¼-inch watch-like dial for easy reading. A temperature-sensitive combination of metals encased in stainless steel substitutes for conventional

mercury and glass. The thermometer is shock-proof, waterproof, and may be sterilized in the usual fashion with alcohol or disinfectant. It may be used either orally or rectally.

Science News Letter, February 20, 1960

**ICE CUBE RETAINER** of insulating plastic is strong enough to withstand more than 200 pounds of pressure, stays dry, and is easily washed. Light in weight and unscratchable, it holds four quarts of cubes.

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**DRY CHEMICAL EXTINGUISHER**, approved by Underwriters' Laboratories and the U.S. Coast Guard, has a protected pressure gauge that tells at a glance the unit's readiness for action. The 2½-pound extinguisher is claimed to have the fire-killing punch of eight one-quart carbon tetrachloride extinguishers.

Science News Letter, February 20, 1960

**BEAKERS, WEIGHING BOTTLES, FUNNELS** of rigid polypropylene withstand temperatures up to 280 degrees Fahrenheit and have high resistance to chemicals and stress cracking. Intended for laboratory use, the beakers come in two sizes with no-drip spouts, the bottles are water- and air-tight, and the funnels have 60-degree sides for quick filtration.

Science News Letter, February 20, 1960



## Nature Ramblings



By HORACE LOFTIN

THE ANIMALS of the world fall within one of two major groups: those with backbones and those without. Probably the best example of a "spineless" animal is the jellyfish, whose body is made up of about 99% water! Typical of the backboned animals is man himself, with his strong internal skeleton, including a bony spinal column.

It should not be thought, however, that skeletons are limited to animals with backbones. Indeed, skeletons of one sort or another are found in nearly every class of creature in the animal kingdom. By definition, a skeleton is any hard, firm framework produced by an animal which gives support and protection to the body. It may also provide surfaces for attachment of muscles, as with the insects and backboned animals. Thus, the shell of a snail or the hard carapace of a crab is as much a skeleton as a man's bony framework.

Skeletons may be of two kinds, depend-

### Down to Bare Bones



ing on where they are found: external skeletons which cover the body, as the snail shell; and internal skeletons, as the bones of man. Some animals may have both kinds, as for instance the turtle, with its typical vertebrate internal skeleton and hard external shell.

The one-celled animals, representing the most primitive form of animal life, have many representatives with skeletons. Best known of these are little amoeba-like creatures called foraminiferans which secrete limestone shells to cover their bodies.

Through countless ages, the shells of these one-celled animals have fallen to the ocean bottom to form thick deposits. The great pyramids of Egypt were made of limestone from foraminifera deposits.

Hard coral rock is the external skeleton of tiny coral animals. The various kinds of worms of the animal kingdom are generally devoid of any kind of skeleton. But many worms build up protective tubes and other coverings from body secretions or sand and shell debris which function as skeletons to some extent.

The typical mollusks such as clams and snails have a heavy shell as an external skeleton. The squids, which are highly modified mollusks, have a bone within their body which serves for support. This is the well-known "cuttle bone" used to supplement the diet of caged birds. Spiders, insects, crabs, shrimp and other crustaceans possess a well-formed hard external skeleton. This skeleton has soft areas, or "hinges," at the joints so that the animal may bend.

Science News Letter, February 20, 1960