

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

⚙️ **STAINED GLASS WINDOW** of flexible, clear plastic can be hung on wall, inside storm door, or at a picture window. It rolls up for easy storage. Bold black outline of Gothic design printed on plastic sheet in shades of red, green, gold, violet and blue give illusion of leaded glass.

Science News Letter, December 27, 1958

⚙️ **FLUORESCENT LIGHT UNIT**, less than one inch deep, is designed for limited-space applications, such as kitchen counters, mirrors and sinks. It can be installed completely out of the line of vision and is capable of illuminating dark work areas with 40 footcandles of light. Operation may be by push-type switch or starter.

Science News Letter, December 27, 1958

⚙️ **PRINTING MACHINE** to mark cylindrical or uneven surfaces is operated simply and by hand. It enables one to mark 300 to 800 pieces an hour, the speed depending on the size and shape of the object to be imprinted. Even tiny imprints are sharp and long-lasting.

Science News Letter, December 27, 1958

⚙️ **MARBLE COLLECTOR** for the youngsters is of transparent acetate and has a long tube with pistol grip handle at one end. A rubber tip at the other end is slotted to allow marbles to enter the tube when it is pressed down over them. Up to



30 marbles may be stored within the tube. Empty, the collector, shown in the photograph, resembles a long-barreled pistol or a short-barreled rifle.

Science News Letter, December 27, 1958

⚙️ **FIRST AID KITS** designed for heavy-duty use feature unit-wrapped items. Available in sizes of 10, 16, 24 and 36 units, each kit has a facsimile index on the inside of the lid that shows exact location of all items

and serves as an inventory control. Cases are made of 20-gauge steel.

Science News Letter, December 27, 1958

⚙️ **PAINT BLENDER** measures out units of color as small as 1/16th ounce from 10 basic colorants. Colorants may be added to a package of basic white or to already prepared paint colors. The machine, which also produces colors in nearly all types of paint, enables the dealer to prepare custom colors within a short period of time.

Science News Letter, December 27, 1958

⚙️ **HOSE CLAMP** for attaching hose to auto radiator and motor block can be applied with ordinary pliers. It consists of a single steel-spring wire shaped into a circle. Each end of the wire doubles back to the circle and overlaps to form a slot into which the circle may expand or contract. Circle is thus locked in place, preventing lateral spreading.

Science News Letter, December 27, 1958

⚙️ **MULTI-PURPOSE RULER** has face with 12 one-inch divisions, each calibrated into 16ths. Each one-inch division is a separate hinged unit whose underside is further calibrated with decimal equivalents. Below the hinged units the base of the white plastic ruler contains additional fractional, decimal and percentage information.

Science News Letter, December 27, 1958



Nature Ramblings



By HORACE LOFTIN

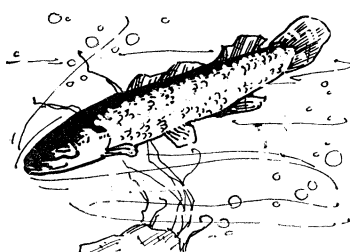
➤ WHEN IS a "fish" not a fish? This is not just a sly play on words by any means, but a serious question which has puzzled scientists for hundreds of years.

In the very old days, almost anything that swam, from a jellyfish to a great blue whale, was called a fish. Later, the term became a little more precise, with jellyfish, pollywogs, worms and the like being left out. A more modern definition is that those aquatic backboned animals which bear fins, either paired or unpaired, qualify for the title fish.

Today's fish experts, however, see many very different kinds of animals when they look at "fishes."

Looking over the broad group of fish-like animals, one very major difference immediately sets the lampreys and their kin apart from the others: the lack of jaws. Therefore, these were set aside as a very primitive group of backboned animals call-

The Funny Finny Tribe



ed the Agnatha, which is simply Greek for "jawless."

Another such look led to the separation of the sharks, rays and chimaeras into a class called the cartilaginous fishes, based on their lack of true bone and other distinctive features.

What remains after taking out these big groups are the "true fishes," or teleosts. Even then, we are omitting a whole array of extinct fishes or exotic forms such as

the air-breathing lung fishes. True fishes range from the very primitive sturgeons and bow-fins (see illustration) through the herrings, suckers, minnows, perches and on to the highly specialized tunas.

There are at least 634 species of true fishes in the fresh waters of the United States. Throughout the world there are probably 25,000 distinct species known to science. The field is still wide open, even in the United States, for uncovering new ones.

Excepting the "lowest" forms like the sturgeons, the true fishes have skeletons which are largely or wholly comprised of bone. Lampreys, sharks and rays have a series of gill slits opening on the body surface; but the true fishes have just one gill slit, and this is covered by a bony plate for protection.

Another typical feature of true fishes is that the fins are generally supported by rays or "fin bones".

Science News Letter, December 27, 1958