

• New Machines and Gadgets •

For sources of more information on new things described, send a self-addressed stamped envelope to SCIENCE SERVICE, 1719 N St., N.W., Washington 6, D. C., and ask for Gadget Bulletin 924. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

⚙️ **LICENSE PLATE HOLDER** is made for the new standardized, 6-inch by 12-inch plates. The holder is molded of a butyrate plastic in two parts: a gray back plate and a clear cover hinged to the back plate at the bottom. It can be attached to the car bracket with supplied nuts and bolts.

Science News Letter, March 1, 1958

⚙️ **METAL BAT** for young softball players is designed to take a beating. Made from a hollow aluminum tube, the bat is described as unbreakable and weatherproof. It is available in 31- and 33-inch lengths.

Science News Letter, March 1, 1958

⚙️ **MECHANICAL LIFTER** is a one-piece all-steel welded helper that offers vertical lift of 69 inches from floor level. A cable winch reduces handle effort to 27 pounds at full load. Lifting speed is one and one-half inches per handle revolution. The lifter's platform is 24 inches square and has 1,000-pound capacity.

Science News Letter, March 1, 1958

⚙️ **PORTABLE ELECTRONIC TOOL** for the prospector, shown in the photograph, can be used to hunt for sulfide ores such as copper, lead and zinc. A two-man electromagnetometer, the ore locator consists of a coil suspended around the waist of



the operator by shoulder harnesses. One wears a receiving coil, and the other a transmitting coil. The two pieces of equipment are connected by a 200-foot cable.

Science News Letter, March 1, 1958

⚙️ **TELEVISION CHAIR** for Mickey Mouse fans weighs only one and one-half pounds. Made with a lightweight aluminum alloy frame, the child-sized seat portion is of washable canvas. The chair is personal-

ized with junior's name and can be folded away when not in use.

Science News Letter, March 1, 1958

⚙️ **PLASTIC SHIELD** for research personnel and others who must observe molten metal or extremely hot objects offers protection against radiant heat above 2,000 degrees Fahrenheit. A coating that reflects infra-red rays is applied under vacuum to the shatterproof, transparent visor.

Science News Letter, March 1, 1958

⚙️ **FLEXIBLE HEATER** designed to help prevent corrosion, mildew and other damage caused by dampness may be suspended, wrapped around objects or laid flat. The heater is 30 inches long, one and one-quarter inches wide and one-quarter inch thick. It generates 20-watt heat.

Science News Letter, March 1, 1958

⚙️ **SPEED AND TRAFFIC CONTROL** is provided by a one-man operable speedometer designed for municipalities and state police. The device automatically records the speed of a vehicle traveling through a fixed distance. The pencil-thin road tubes are hooked up to an electrically-timed stop watch that shows the speed in miles per hour.

Science News Letter, March 1, 1958



Nature Ramblings



By HORACE LOFTIN

► A GLINT of white beneath the uniform brown of winter grass caught the naturalist's eye. He halted, picked the object up and gazed at it with an expression of disbelief on his face. It was the skull of a small animal, a woodchuck. But, extending out from the upper jaw, were two enormous tusk-like teeth. One of these spiraled alongside the snout, reminding him of the tusk of a mastodon. The other tooth curled back on itself to pierce the roof of the animal's mouth!

What had happened?

The woodchuck is a member of the order of rodents, or Rodentia. This group of gnawing mammals is characterized by two pairs of incisor teeth like four powerful chisels at the front of the jaws. Unlike the teeth of most other mammals, these incisors

The Gnawing Mammals



grow throughout the lifetime of the animal. One scientist, studying the rat, found that this rodent's four incisors grew some 20 inches in a year.

The back of these teeth lack the hard cover of enamel common to most teeth, however, and the opposing incisors keep them worn down to a sharp edge by con-

stant gnawing. Thus, normal usage keeps the growing teeth at a regular length.

In the case of the woodchuck skull, apparently by some accident the animal had lost his two lower incisors. With no opposing teeth to grind against, the upper incisors grew without hindrance. He soon found himself unable to gnaw with these monstrous teeth, and death by slow starvation resulted, unless some predator dispatched the weakened animal.

Accidents like this one are rare, of course, and the "self-sharpening" chisels of the rodents have contributed to the great success of the rodents as a group.

Other adaptations of these animals for a life of gnawing are the lack of canine teeth and special changes in the molars for grinding. The lower jaw is hinged to the skull so that it can move up and down, backwards and forwards, and sideways!

Science News Letter, March 1, 1958