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 1048. To receive this Gadget Bulletin without special request each week, remit $1.50 for one year's subscription.

AIR-POCKET PILLOW, a new type of foam pillow, is made of multi-celled urethane foam cored with dozens of internal air pockets. These air pockets enable air to circulate easily, providing a cooling effect as well as extra softness and resilience.

Science News Letter, July 16, 1960

CLOVER LEAF SUN UMBRELLA decorates porch, patio or swimming pool while offering protection from the sun. The clover leaf sunshade, available in any combination of four different colors, consists of four flat, circular aluminum leaves, each 48 inches in diameter.

Science News Letter, July 16, 1960

"HOME OFFICE" hides a typewriter in an attractive lamp table. When the top is raised, a spring mechanism is released which lifts the typewriter on its platform to typing height. The platform draws forward and side leaves open out for work space. Supplies are handy in large drawers.

Science News Letter, July 16, 1960

MECHANICAL BASS, shown in the photograph, enables children to battle fighting fish right in their own bathtubs. The plastic bass floats about until the fisherman hooks him, triggering a mechanism in the bass's mouth. Then the bass, spring-wound by its fins, puts up a fight. The fish comes complete with rod, reel, line and lure.

Science News Letter, July 16, 1960

"SUNDAE" TOOTHBRUSHES, designed to make dental hygiene fun for youngsters, are colored and scented to give the impression of ice cream flavors. The brushes come in chocolate, vanilla, strawberry, lemon, lime and orange. Although the odor is impregnated in the handle, in actual brushing little or no flavor can be detected.

Science News Letter, July 16, 1960

FLASHLIGHT PEN can write in the dark. The translucent lower half, equipped with small light bulb, acts as a flashlight, or can be used for writing in the dark. The bulb and battery may be easily replaced by the user.

Science News Letter, July 16, 1960

TEMPERATURE-INDICATING MATERIALS, crayons and paints, change color to indicate changes in temperature of any hot surface. They are for use in any industrial or commercial application where temperature and its correct determination are important factors.

Science News Letter, July 16, 1960

"CLOSE-UP" TV UNIT enables viewer to enlarge the picture image on his TV set by remote control. When the close-up button is pressed, a transistor-powered signal is beamed at the television receiver, and the center of the image is instantly increased on the viewing screen by 25%.

Science News Letter, July 16, 1960

Nature Ramblings

By HORACE LOFTIN

WITH ALL DUE RESPECT for our feathered friends, it must be admitted that birds are not very bright. Indeed, the dumbest mammal is probably a mental giant in comparison with the smartest bird.

But this is not to berate the birds for being stupid. What they lack in ability to learn—that is, intelligence—they make up for by their high degree of instinct—unlearned behavior. As an eminent scientist has remarked, we may call a person who is slow to learn a "bird-brain"; but birds could, with equal disdain, call a clumsy nest-making bird a "man-brain"!

Birds, in common with many lower animals, rely on inherited knowledge to carry out their daily activities. When a certain season approaches, the bird automatically seeks out a nesting site, collects building materials and builds a nest typical of its species. He does this instinctively.

Even a bird's song is instinctive in most cases. The intricate mating behavior and

Built-In Education

the care of young all involve inherited instinct.

Of course, this does not mean that birds are automatons. Instinctive behavior can certainly be altered to some degree by experience. A bird's second nest most likely will be better than its first one, for example. Parrots can learn a sizable vocabulary of highly picturesque words. Crows are especially noted for their high avian I.Q.

Even the humble English sparrow must be credited with a certain keenness. Last summer, in a trapping and banding experiment, a scientist easily caught a large number of sparrows in a simple trap baited with bread. But this spring, hardly a bird could be caught. Some sparrows were actually entering the trap, removing the bread and eating it safely outside. What was the difference? Last summer's birds were newly off the nest. This spring's sparrows had profited from several months of experience—they had learned caution.

Even so, learning plays a minor role in the daily life of birds when compared to the overriding importance of instinct. The basic difference between birds, with instinctive behavior, and mammals, with learned behavior dominant, is clearly seen in the make-up of their brains.

In mammals, the upper part of the forebrain tends to be enlarged, ending in the massive cerebrum of human beings. This is a center for learning. In birds, the lower portion is more highly developed and is a center for instinctive behavior control.

Science News Letter, July 16, 1960