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

ACID PUMP provides contaminant-free handling of corrosives. The polyethylene pump screws onto any standard five-pint acid bottle. Attached to it are a siphon, a spout and a four-ounce squeeze bottle, all of plastic.

Science News Letter, August 9, 1958

TELEPHONE LOCK prevents unauthorized outgoing calls. The lock is mounted on a circular rim that completely blocks out the dial holes. Two keys are provided with each telephone lock.

Science News Letter, August 9, 1958

ADJUSTABLE BACK-REST for automobile drivers is said to be able to fit individual height and figure types. The adjustments are made with three knobs; two that modify the sitting height and a third for firmness and curve. The back-rest is made of fiber glass mesh fastened to a steel frame.

Science News Letter, August 9, 1958

SAFE BASEBALL for junior and his friends is made possible by a lightweight plastic bat and a matched one-ounce plastic ball, shown in the photograph. The 30-inch bat is hollow and of regulation shape. The ball is hollow too, and has surface holes to limit its path of flight. Made of a polyethylene plastic, the bat and ball help prepare future big leaguers.

Science News Letter, August 9, 1958

DOLL PAINTING KIT permits youngsters to paint the native costumes of dolls of 32 nations. Five different colors of paint, thinner, and glue for mounting the dolls to bases contained in the kit are housed in non-breakable polyethylene plastic containers.

Science News Letter, August 9, 1958

SAFETY TAGS are designed for permanent marking of emergency shut-offs in the home. The tags are marked in red to state, for example, "Main Water Shut-Off." Accompanying the tags are nickel-plated bead chain fasteners.

Science News Letter, August 9, 1958

SOLAR BROILER can be used to sun-broil meat in the back yard or on a picnic. The fireless cooker weighs four pounds and folds up like an umbrella. The aluminized inside of the broiler forms a four-foot parabolic reflector that focuses the sun's rays on a ten-inch grill.

Science News Letter, August 9, 1958

POWER SAW KIT is designed for the do-it-yourselfer. It contains an electric power saw, a circle-cutting and rip-saw attachment, and five assorted blades. The saw operates on 110-120 volt alternating or direct current. The kit is housed in a metal carrying case.

Science News Letter, August 9, 1958

Nature Ramblings

By HORACE LOFTIN

Flowers for Survival

➤ A SPECIAL CHARM of flowers to man is the great variety in which they come. Their colors encompass the rainbow. Their form and structure range from very simple to extraordinarily complex. The arrangement of petals and other parts, their size and showiness or delicate minuteness, all add to the floral kaleidoscope.

This almost infinite variety represents the product of natural selection during more than 150,000,000 years, since the Mesozoic Era when true flowering plants first appeared. Floral features which gave superiority to the plant were retained, improved and elaborated on through the thousands of centuries.

Each species' unique flowers are vital to the survival of the plant.

Flowers are sexual organs. Survival of the species depends upon how well the flowers carry out their reproductive function. This hinges upon how successfully the pollen of one flower is carried to another flower to fertilize the eggs.

In some plants, pollen is normaly distributed by wind or water from one flower to another, and in this case the floral structure is extremely simple. There is little need for showy petals and bright color, and these are usually lacking.

But in many of our familiar flowers, cross pollinaton requires the services of an insect, bird or animal, carrying a load of pollen from one blossom to another.

Many of our flowers depend on bees for cross pollination. Their floral parts are developed to attract bees. Especially interesting is the fact that these "bee flowers" tend to be blue or yellow or a mixture of the two. This is consistent with the finding that bees see these colors best and are color-blind to reds. The typical blue violet is a "bee flower."

Flowers normally cross-pollinated by butterflies are commonly red or orange, corresponding to the butterfly's range of color vision. "Moth flowers" are often white and highly scented, since the night-flying moths are guided to them more by smell than by vision.

When man uses "artificial selection" of special floral characteristics to suit his own tastes we find flower features that do not serve in the struggle for survival.

Science News Letter, August 9, 1958