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

BASKETBALL NET for junior has a rim and netting made of a plastic. The netting stays white and will not stretch, peel or crack. It can be used outdoors, as well as indoors.

Science News Letter, April 13, 1957

OIL TESTING KIT detects solids, corrosive acids and fuel dilution in lubricating oils. Designed for use by nontechnical persons, the tester can determine in a matter of minutes whether the oil being tested needs changing or is unsatisfactory. The kit is available in a metal equipment case.

Science News Letter, April 13, 1957

SPLICE COVERING is a two-piece fitting that provides moisture-proof protection for electrical wire repairs. Molded of a polyethylene resin, the splice cover is designed in two tubular sections which slide together end-to-end to form an overlapping seal. A standard cover can be used for wire sizes from #6 to #2.

Science News Letter, April 13, 1957

FLYABLE SCALE-MODEL of Lindbergh's "Spirit of St. Louis" is made of a high-impact styrene plastic. The monoplane model can be assembled from a kit containing 34 parts, pre-formed to scale of one-half inch to one foot. The assembled

plane is 11 and one-half inches long and has a wing span of 18 inches, as shown in the photograph. It is powered by a rubber band.

Science News Letter, April 13, 1957

FOUNTAIN BRUSH for washing buses, trailer-trucks or large vans cleans a 13-inch swath in one stroke. A swivel attachment permits adjustment of the brush head to any angle. The aluminum handle is designed to be hooked up to a hose. The brush is available with four- or six-foot handles.

Science News Letter, April 13, 1957

OFFICE ACCESSORIES made of aluminum simplify and speed up filing, collating and identifying papers. The lightweight aids are a gathering rack that expands like an accordion, a wall rack that holds up to 40 pounds, and a finger-tip desk file that takes material of different thicknesses.

Science News Letter, April 13, 1957

PLASTIC "LINENS" for everyday use are produced from a film made from a polyethylene plastic. Embossed and inlay-printed, the draperies and tablecloths can be cleaned with a damp cloth. The plastic materials have raised patterns to look like rich brocade or fine damask.

Science News Letter, April 13, 1957

BOARDING RAMP for boats has six steps that are said to remain horizontal at all times, high tide or low. The aluminum steps have stainless steel fittings and are anodized to resist pitting and corrosion. Five and one-half feet long, the boarding ramp weighs 42 pounds. A movable handrail fits either side of the ramp.

Science News Letter, April 13, 1957

Nature Ramblings

By HORACE LOFTIN

➤ IT IS SPRINGTIME now over much of the nation, and the woodland plants are in flower there. Among these plants are the pine trees. But who among us has seen the "blossom" of a pine tree?

Why, all of us have seen the pine's flowers — the cones of the pine are the equivalent of the blossoms of the more familiar "flowering plants," such as the dogwood or the rose.

Each cone is composed of a short central axis which bears small, loosely-fitting scales. The scales are structurally the leaves, and the central axis is a branch of a stem. Thus, it has the fundamental structure of a flower. Likewise, the cone is functionally a flower, for it gives rise to seeds and hence to new pines.

There are two kinds of cones in every pine. One of these is rather long and narrow, and gives rise to the pollen or

Flower of the Pines

male element. The other is usually shorter and stouter and contains the ova or eggs of the pine tree.

The "male" cones commonly grow in a cluster near the base of a vegetative bud. The "female" cones are usually borne singly or in a small cluster at the tip of a young stem.

If you find a pine tree with its "male" cones a bright yellow this spring, shake the limb and a veritable cloud of pollen will fall around you. The pollen grains are very small and have two wing-like structures on them, allowing the wind to scatter them far and wide. Some of these pollen grains fall between the scales of "female" cones, where the unfertilized eggs are found.

The entire cycle of reproduction of a typical pine takes from three to four years to complete. Here is what happens in the white pine, *Pinus strobus:*

In the first spring, the two kinds of cones appear. Pollen is formed in the "male" cone and pollen grains are transported through the air to a "female" cone. That summer, a tube that grows toward the egg but does not reach it develops from the pollen grain. Only in the following spring is the egg fertilized as the pollen tube reaches it.

During the second summer the seed matures and falls to the ground. The following spring—the third of the cycle—the seed germinates to give a new pine plant.

Science News Letter, April 13, 1957