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 1018. To receive this Gadget Bulletin without special request each week, remit $1.50 for one year's subscription.

PORTABLE LANTERN, powered by three flashlight batteries, is compact and light in weight. Said to be attractive enough for kitchen use, small enough to fit in a car's glove compartment and durable enough to be kept in a tool kit or tackle box, the lantern has an easy-carrying handle.

Science News Letter, December 19, 1959

REVERSIBLE RUBBER MAT contains flexible wiping blades that trap dirt efficiently. Designed for use in homes, hotels, restaurants, schools and offices, the mat features four-by-four-inch link sections that permit a variety of checkerboard or solid color designs. The mat is available in 11 colors.

Science News Letter, December 19, 1959

MEASURING GAUGE for the housewife has a scoop end that measures tablespoons and standard cup parts and a handle that measures teaspoons. A sliding gauge in the handle indicates correct amounts in either scoop or handle.

Science News Letter, December 19, 1959

TOY ATOMIC POWER PLANT, shown in the photograph, is a plastic scale model in kit form of a typical atomic electric generating station. It has complete interior and exterior details, including the reactor,

steam generator, pumps, turbine generator, transformers, circuit breakers and transmission lines and towers.

Science News Letter, December 19, 1959

SHOESHINE CLOTH unrolls from two easy-grip, cylindrical handles on both of its ends. It has the right surface and nap to give a quick, bright shine without the hands ever touching the cloth. One side of the cloth may be used for black shoes, the other for brown shoes.

Science News Letter, December 19, 1959

INDUSTRIAL STETHOSCOPE for engineers, preventive maintenance and production men in every branch of industry can be used underground, under water or in the air. It may be used to detect flow, noises, soundness of welded joints, gear-tooth accuracy, and gas leakage.

Science News Letter, December 19, 1959

IRONING BOARD COVER uses a laminate of aluminum foil and acetate plastic sheet. The laminate is placed under a cotton drill fabric to make the cover. Heat from the iron is reflected and spread by the aluminum, thus requiring less dampening of clothes and cutting ironing time.

Science News Letter, December 19, 1959

LIGHT CONTROL SWITCH, activated by the presence or absence of light, automatically turns on electric power or lights at night and off at dawn. It is merely plugged into a power outlet with the photoelectric eye facing the outside natural light. If office or home is left empty, the switch lights lamps connected to it, discouraging prowlers.

Science News Letter, December 19, 1959

Nature Ramblings

By HORACE LOFTIN

IT HAD been only a few weeks since the naturalist had seen this small shrub rear its thickly leaved branches into the air. It was a stout, healthy plant then. Now it was thin and sickly, its green color fading, and its branches bent by orange-yellow vines that covered it like "the unkempt tangle of some witch's locks."

The vines that covered the shrub were true plant parasites. They depended on the shrub for their support. But beyond that, they robbed the very life substance of their unwilling host in order to grow.

These vines are called "dodder" (Cuscuta), and are members of the morning glory family. So dependent are they on a parasitic way of life that they have completely lost all their chlorophyll, the green material by which plants manufacture their own food. In the absence of chlorophyll, the dodders are a rather "sinister" orange to yellow in color, casting an unseasonable autumn look over their green hosts.

Witch's Locks

The dodder begins its life as a tiny seed in the soil. When the seed germinates, the young plant stem grows rapidly, using food stored in the seed for its nourishment. It must quickly find a suitable host plant as it "stretches," or it will starve. When it does come in contact with a host plant, the stem coils to embrace it and sends out tiny roots which grow into the host's tissue.

These root-like suckers unite with the portions of the host tissue which transport food and water. Thereafter, while the host plant lives, the parasitic dodder will live and thrive at its expense.

After a period of rapid growth, producing the "witch's locks" that blanket the host, the dodder comes into blossom. The yellowish-white flowers produce seeds which fall to the ground to furnish the parasites of another season.

There are many other types of flowering plants which are completely parasitic, and therefore devoid of chlorophyll's color.

The Indian pipes (Monotropaceae) live either on dead matter in the soil or as true parasites on living roots. Members of the broom-rape family (Orobanchaceae), kin to the begonias, prey on living roots. In the tropics of Asia, one close relative of the familiar buttercup called Rafflesiaceae spends its entire vegetative life within the root tissues of trees. At flowering time, this parasite produces a gigantic blossom which appears on the host root as if by magic. This blossom, some three feet in diameter, is probably the largest flower of the entire plant kingdom—a product of parasitism.

Science News Letter, December 19, 1959