

• New Machines and Gadgets •

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⚙️ **HIGH-FLYING KITE** is made of paper coated with a polyethylene plastic. The coated paper resists dew and moisture on the ground and snagging or tearing when airborne. The kite measures 36 inches in length and is 30 inches wide. Instructions for assembly are printed on the kite.

Science News Letter, March 16, 1957

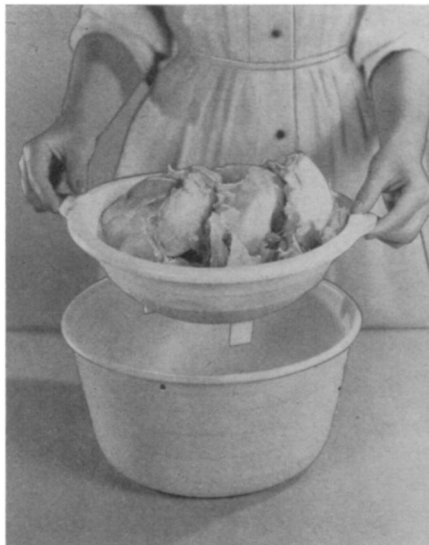
⚙️ **AUTOMOBILE FINDER** is a pennant identification for making it easy to spot your car in the parking lot. Attached to the aerial, the plastic pennant has pressure sensitive initials and is available in colors to match your car. It can also be used for decals or club insignia.

Science News Letter, March 16, 1957

⚙️ **LIFT PLATFORM** is semi-portable, can be used anywhere, and requires no installation. Equipped with a six-by-nine-foot platform, it will support 5,000 pounds. The platform is powered by a pumping unit that operates without air. Its range is from 4½ to 64½ feet. It is available in sizes and lifting capacities up to 100,000 pounds.

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⚙️ **MATCHED KITCHEN SET**, shown in the photograph, includes a plastic colander and a plastic mixing bowl. Molded of polyethylene, the kitchen helpers will not rust, corrode or clatter. The rim of the



colander has been rolled to make it fit snugly over the bowl. The bowl holds five quarts. Either tool can be used separately.

Science News Letter, March 16, 1957

⚙️ **GUTTER PROTECTION** is provided for the home repairman by a coating and cloth-like stripping. The coating is a bi-

tuminous mixture with asbestos fiber and the stripping, for covering holes, is a fire-proof glass fiber roll. A spatula and brush are included with the coating and stripping.

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⚙️ **QUICK-SETTING CEMENT** dries translucently. Designed to repair breaks in marble, stone and metal, the cement can also be used for wood, glass and ceramics. It has a pot life of 20 minutes and dries by exposure to the air. The cement is water-proof, has a minimum shrinkage and low absorption rate.

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⚙️ **BILGE PUMP** that is automatic is described as needing no priming, no electricity, no motor and eliminates the static problem. The rock and roll of the boat keeps it pumping. Designed for commercial and pleasure craft, the pump attaches above or below deck.

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⚙️ **FIRE STARTER** lights barbecue fires or logs in minutes. Operating on seven and one-quarter amperes, the electric and automatic device extends to the center of a 24-inch brazier. The starter is plugged in and rested on its heat shield. When the fire is going, it is removed and unplugged.

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Nature Ramblings



By HORACE LOFTIN

► TOWARD the middle of the last century, a young Englishman named Charles Darwin was traveling around the world as naturalist aboard H.M.S. Beagle. One morning when the Beagle stood some sixty miles from the nearest land, Darwin saw the ship become covered with thousands of tiny spiders "raining" down from the sky.

Darwin's "rain" of spiders is actually a very common event on land—though seldom seen so far out at sea. Nearly all species of spiders take to the air on "balloons" of fine silk shortly after they hatch from the eggs, where the winds scatter them far and wide.

One mother spider may produce scores or hundreds of eggs. When these all hatch out, it is very likely that competition for food and space for growing spiderlings becomes pretty keen. So at the appropriate time, the young spiders scurry to some high point—a grass tip, a fence post, a project-

Aerial Adventurers



ing twig. There they sit patiently waiting for just the right weather for their great adventure. Oddly enough, they do not want a breezy day. The wind might be too strong. Perfect for the flight is a still, warm day when imperceptible currents of air flow quietly and steadily from the ground.

When the moment arrives, the spiderlings hurl out their fine balloons of silk which are lifted along with their passengers by the slight current. The flight may be a

short one or of hundreds of miles. Perhaps the high winds above the ground will carry the spider aeronauts out to sea—as Darwin saw—where they may be lost or perhaps colonize some distant island.

After the flight is over, the spiders settle down to a relatively home-loving existence—if they were lucky enough to fall on friendly soil. The hazards are great, and who can say what percentage of each year's "crop" of young spiders perish from this aerial adventure?

The web used by young spiders in this dispersal flight is often found in great quantity on the ground, in trees or wherever the spiders land. Before the secret of the spider's flight was understood, the nature of this webbing was a great mystery. Some people thought it represented the gauze that covered the Virgin Mary before the Assumption. In French, this is "gaze a Marie," which became "gossamer" in English, the name by which we know the spider's flying web.

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