

• 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 1065. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

☄ **CHRISTMAS ORNAMENT CHEST**, a divided cardboard chest, protects delicate decorations for use the next season. The chest has sections for 96 large ornaments or 300 smaller ones, eight sets of lights, tinsel, and under-tree items.

• Science News Letter, 78:320 November 12, 1960

☄ **GALLOPING HOBBY HORSE** goes forward and backward as it bucks up and down. The horse is made of soft, but tough, vinyl plastic with a molded-in Western saddle. The frame is sturdy metal tubing, with a spring adjustable to child's weight.

• Science News Letter, 78:320 November 12, 1960

☄ **MAGNETS AND COILS KIT**, for youngsters from the fifth to ninth grades, includes three Alnico magnets and other required materials to enable students to perform their own experiments in magnetism. Instructions set forth ten simple experiments that can be performed with supplies in the kit.

• Science News Letter, 78:320 November 12, 1960

☄ **CHRISTMAS TREE AND STAND** for table-top use are joined in a permanent, leakproof connection by means of molded sleeves of tough plastic material. The metal stand, shown in the photograph, contains "synthetic sap," liquid nutrient in direct contact with the bark of the stem which



transports the sap to the tree. The feeding delays needle drop and extends life and freshness of the tree.

• Science News Letter, 78:320 November 12, 1960

☄ **RUST-PREVENTIVE GUN CASE** gives firearms protection for a year or more. The disposable case is made of chemically impregnated kraft paper laminated to embossed aluminum. No oil or grease is

needed. Cases are available for rifle, shotgun or pistol.

• Science News Letter, 78:320 November 12, 1960

☄ **PLASTIC MIXING BOWL** of high density polyethylene is boilproof, withstands rigorous usage, including washing in the high temperature of a dishwasher as well as the below-freezing temperatures of a home freezer. It comes with a seal-tight snap-off-and-on cover and is specially designed for electric mixers.

• Science News Letter, 78:320 November 12, 1960

☄ **ONE-WHEELED CYCLE**, a child's version of the old-time unicycle, provides new pedaling sport and helps develop coordination and confidence in the growing youngster. The cycle can be adjusted for different leg lengths and has training poles, which make learning easy. It holds up to 100 pounds.

• Science News Letter, 78:320 November 12, 1960

☄ **NYLON-HANDLED CUTLERY** has blades of high-quality steel and can be washed in dishwasher. The long, streamlined handles of nylon resin provide a comfortable gripping area when the knives are in use. For the table, a set of steak knives and a carving set are offered. For the kitchen, seven knives are available, as well as a matching fork and off-set spatula.

• Science News Letter, 78:320 November 12, 1960



Nature Ramblings



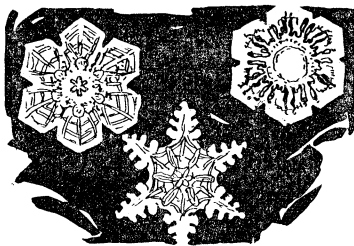
► **WHATEVER THE USES** of snow, whether for skiing, for packing into snowballs, for incapacitating automobiles or for muffling sound, most persons agree that an untouched snow blanket is one of the most peaceful sights of winter.

In any one snowfall, several types of snow crystals may be found. For a few minutes, one type may be dominant, then another starts to mix in and finally takes over, and so on to a third.

There are two basic types of snow crystals: the flat-faced stars and the hexagonal prisms, which become columns when elongated. Variations and combinations of these types may form bullets, needles, cufflinks, thick or thin stars and, in rare cases, pyramids.

Most snow crystals are six-sided because they are made up of ice crystals, which are themselves hexagonal. Occasionally a three- or four-pronged star shape is found, but the angles between the prongs are always the same as they would be for a six-pointed figure. In many cases, the extra branches

Snowflakes



are actually present, but so small and rudimentary that they are barely visible under a high-power microscope.

But one type, the three-sided or trigonal plate form, is believed to be a true triangle-based shape.

Whether a snowflake becomes an intricate and lacy star, a column or a pyramid depends upon the altitude, temperature and moisture conditions of the air through which the flake passes.

When a cold snowflake, just beginning to

form, falls from a high altitude through a layer of warm, moisture-saturated air, it usually grows into a star shape and can become relatively large because it glides and has more time to collect additional particles.

When the temperature drops low enough that there is a ring around the moon, most of the water vapor has turned to ice crystals and well developed columnar shapes are more easily formed.

In the blistering cold of the arctic and antarctic regions, where cirrus clouds sometimes sit almost on the ground, columns with hollow ends are frequently seen.

Somewhere in between the extremes, bullet-shaped crystals, made up of a column with a pyramid on one end and a flat plate on the other, and cufflinks, made of a column with a flat plate on each end, are formed.

The rapidly changing conditions during a snowfall produce the mixture of plain and fancy shapes that pile up into winter snow.

GLORIA BALL

• Science News Letter, 78:320 November 12, 1960