

• 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 1064. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

⚙️ **MEDICAL LOCKET**, made of stainless steel, will hold medical instructions that could save the wearer's life in an emergency. Especially desirable for diabetics, patients sensitive to certain drugs and those with rare blood groups, the locket comes with a 24-inch chain or a fob pin.

• Science News Letter, 78:304 November 5, 1960

⚙️ **GOLF PRACTICE NET**, seven feet square on a steel pipe frame, can be set up indoors or out to catch balls used in practice. The net indicates whether the golfer has sliced or hooked by showing the fault on the rebound.

• Science News Letter, 78:304 November 5, 1960

⚙️ **ROOM DIVIDER PANELS** lock together for easy construction of decorative dividers. The 12-by-12-inch panels are made of plastic, in two designs, and are available in white and gold or black and gold. The unique locking method makes it possible to install these units without tools.

• Science News Letter, 78:304 November 5, 1960

⚙️ **EASY-TO-HOLD HAIRBRUSH** for professional or home use features a plastic, contour handle with a thumb-rest that prevents the brush, shown in the photograph, from twisting in the hand and helps elim-



inate wrist fatigue. Bristles are placed in 84 specially arranged tufts to act like a comb and at the same time fluff and polish the hair.

• Science News Letter, 78:304 November 5, 1960

⚙️ **FAUCET SHARPENER** hones knives by water power. The sharpener fits on laundry tub or aerated type kitchen faucets

where water rushing through the sharpener can turn its aluminum oxide grinding wheel.

• Science News Letter, 78:304 November 5, 1960

⚙️ **LOCK "ANTI-FREEZE"** prevents locks from freezing, and removes ice from frozen automobile, garage and other outside locks. The chemical product is sold in plastic squeeze bottles.

• Science News Letter, 78:304 November 5, 1960

⚙️ **STAND-UP SCALE** has a handle that also serves as an easel leg so the bathroom scale can be stood on end against a wall, thus saving space. The scale has a magnified dial for easy reading and comes in silver, sandalwood, white, black, pink and turquoise.

• Science News Letter, 78:304 November 5, 1960

⚙️ **PIPE SEALER TAPE**, for dry sealing all types of threaded pipe joints and threaded cable connectors, is unaffected by temperatures in excess of minus 250 degrees Fahrenheit to 500 degrees Fahrenheit. The tape comes in one-half-inch strips in ten standard colors. The material can be used on various materials including steel, iron, brass, plastic, aluminum and synthetic rubber.

• Science News Letter, 78:304 November 5, 1960



Nature Ramblings



➤ **THE FALL MIGRATION** is nearly over now. Fat-laden birds from all over the United States have flown southward, answering an inner urge to leave their birthplaces and breeding grounds for a trip into the unknown.

These birds do not "know" that a cold winter awaits them if they stay in the north. Indeed, young birds of the year could not know of winter, while the adults of most migratory species have never passed a winter in the north to witness the icy spectacle.

What force, then, impels them to flee a danger about which they know nothing? There is a simple answer: instinct. But this is only begging the question.

The origin of an inherited instinct to fly south in winter, and north in summer, is lost in the dim, early history of each migratory species.

We can only guess at the facts, and we know but little more about the specific factor that sets off the migratory flight.

It is commonly believed that the arrival of cool weather starts the migration, and this is true enough for some species. But

Southward Ho!



many North American migrants depart for the south long before the first break in the weather.

Another trigger that has been proposed is length of day. Certain birds, for example the Oregon junco, have been forced into migratory condition in midwinter by altering the amount of light received each day. Thus, the shortening of the day with autumn's approach might set off the pattern of migration.

But because birds also migrate from the tropics where the amount of daylight scarcely varies through the year, some

scientists support the theory that a "biological clock" within a bird signals the time for migration to begin, more or less independently of external factors.

The truth probably lies in all these possibilities. Apparently the migratory instinct is one which has been acquired independently by many different kinds of birds at different times. Thus it would hardly be expected that the same trigger for migration would apply for all birds.

Whatever the cause for migration and the immediate factor that sets it off, almost all migratory birds begin preparing for their big adventure early. The trip will take fuel, in the form of heavy fat deposits, and most birds do not undertake a migratory flight until such a store is built up.

The amount of energy required to take a hummingbird on its non-stop flight across the Gulf of Mexico has been calculated as something under the amount available in the tiny bird's store of migratory fat.

—HORACE LOFTIN

• Science News Letter, 78:304 November 5, 1960