

# • New Machines and Gadgets •

For addresses where you can get more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., Washington 6, D. C., and ask for Gadget Bulletin 651. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

⚙️ **"STEREOSCOPIC" SCREEN** is especially designed to help the amateur project with full effect the breath-taking scenes captured by his three-dimensional camera. Easily set up, the portable, roll-up screen has a ratchet device that adjusts tension on the aluminum-treated surface to get rid of undesirable wrinkles.

Science News Letter, December 6, 1952

⚙️ **VARNISH REMOVER**, previously available only in industrial sizes, now can be obtained in pint, quart and gallon cans for home use. Applied to varnish- and paint-covered woods, the solution decomposes the varnish and paint yet does not harm the wood.

Science News Letter, December 6, 1952

⚙️ **EXPERIMENTAL ANTENNA** for automobile radio transmitters also doubles as a fishing rod when the motorist wants to commune with nature. Made of shatter-proof flexible glass with the usual fishing rod line-guides, the antenna's internal braid conductor has been found a good radio-wave radiator. Antenna not yet available commercially.

Science News Letter, December 6, 1952

⚙️ **SPICE DISPENSER**, shown in the illustration, has six removable chambers made of a clear plastic in which different powdered or granulated spices can be stored.



By turning the movable, brightly colored cap on the unit, the housewife selects the desired spice. The cap can be adjusted to sprinkle or to pour the spice.

Science News Letter, December 6, 1952

⚙️ **WIRES AND CABLES** for high-temperature applications have silver-plated copper conductors, available with chemical-resisting insulation in 14 colors. Temperatures from minus 55 to plus 200 degrees Centigrade do not cause the insulation to become brittle or soft.

Science News Letter, December 6, 1952

⚙️ **GAS WATER HEATER** provides households with hot water at two temperatures, 180 degrees and 125 degrees Fahrenheit. The 180-degree water is piped to automatic clothes- and dish-washing machines, reaching the machines at a temperature that is satisfactory for killing bacteria. The 125-degree water goes to household faucets for general use.

Science News Letter, December 6, 1952

⚙️ **TEA-MAKER** consists of a glass pot in which water is heated. Tea leaves are put in a separate glass cylinder that is perforated at one end. The cylinder is "pumped" up and down in the pot while the tea is brewed, but is removed before the tea is served.

Science News Letter, December 6, 1952

⚙️ **ALKALINE RADIO** dry battery is nearly 25% smaller than present types, yet offers double life when used in small portable radios that have been designed especially for it. The alkaline-cell principle, heretofore applied only to wet-type, non-portable batteries, makes the battery more efficient, thus permitting its size to be smaller than ordinary "B" batteries.

Science News Letter, December 6, 1952

# • Nature Ramblings •

► **AMBITIOUS DREAMERS** of human flight, from Leonardo da Vinci to the Wright brothers, studied closely the flight of birds, and at long last profited thereby.

A modern airplane is like a bird at least to the extent of putting a streamlined covering over the irregular surfaces of its power sources, as a bird streamlines its rather awkward-looking body with smooth feathers.

Some of our newer high-speed planes seem to have been modeled on the lines of a hawk-moth rather than those of a bird. They have the same fineness of fuselage, the same trim and taper wings as those hovering, long-tongued twilight visitants to summer flower-gardens.

However, if an airplane designer were able not only to copy the hawk-moth's smooth lines, but to imitate even a part of the things a hawk-moth can do in flight, he would have trouble taking home all

## Still Unimitated



the medals and prizes that would be heaped on him.

The hawk-moth is not only capable of swift, darting forward flight; it can fly backwards, dodge sidewise, stop abruptly in mid-flight and hover motionless in the air. It can rise or drop abruptly while hovering, swoop with equal abruptness while in flight. In all these marvelous

skills it closely resembles the hummingbird, for which it is sometimes mistaken by those who are not close observers.

Add to this the fact that this insect's wonder-wings are also its only propellers!

It is only lately that scientists have been able to get an adequate idea of how an insect uses its wings in flight. Close watchers with good eyes were able to catch the principal movements of the bird's wings: Leonardo's notebooks are full of sketches showing how carefully he watched the birds he strove to imitate.

But the many-fold more rapid beats of an insect's wings defied study until the recent invention of ultra-high-speed motion picture cameras capable of making thousands of exposures a second. Now we know how an insect flies—but, despite all our scientific and technological advances, we are still unable to imitate its art.

Science News Letter, December 6, 1952