

• New Machines and Gadgets •

For sources of more information on new things described, send a self-addressed stamped envelope to SCIENCE SERVICE, 1719 N St., N.W., Washington 6, D. C., and ask for Gadget Bulletin 849. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

⚙️ **PAPER WRAP** coated with a plastic polyethylene keeps rosebush roots moist and healthy during shipping or storage. The wrap, which holds the essential dampness in the package, can be folded easily around the plant roots and tied with string. The wrap is available in sheets or rolls.

Science News Letter, September 22, 1956

⚙️ **PLASTIC STEEL** for all types of repairs hardens to a rigid steel-like mass in two hours after the addition of a hardening agent. Made of 20% plastic and 80% steel, the mixture bonds itself to aluminum, bronze, brass, iron, wood, glass, concrete and other surfaces.

Science News Letter, September 22, 1956

⚙️ **ELECTRONIC ALARM** to ward off burglars employs an infrared modulated light. Two cones are used, one giving off "black" light at a specified number of cycles per second and the second receiving the signal. Any body passing through the invisible beam trips off the alarm. The system operates on 110-volt, 60-cycle electrical supply.

Science News Letter, September 22, 1956

⚙️ **TELEPHONE LISTING PAD** is a slide-out index designed to be attached underneath the telephone itself, as shown in the photograph. Made of a plastic vinyl sheet, the index has space for up to 200



names and numbers. Only a small black tab shows in front of the telephone when the index is not in use. A clear plastic overlay protects the names and numbers.

Science News Letter, September 22, 1956

⚙️ **WALL TILES** in a wide variety of colors, textures and patterns have decorating materials laminated between plastic vinyl

sheets. The ten-inch square tiles resist grease, oils, chemicals, water and household stains. Easily washed with a detergent, the sheet tiles do not shrink, fade or peel.

Science News Letter, September 22, 1956

⚙️ **SKILLET-GRILL** for the kitchen grills and broils on one side and bakes and fries on the other. The double-surface cooker is made of heavy cast aluminum and has a cooking area ten and one-half inches square. Heat settings for different foods are imbedded in the plastic handle.

Science News Letter, September 22, 1956

⚙️ **MOTOR SCOOTER** of British design and construction has a single-cylinder air-cooled 125-cc engine and is enclosed in a one-piece pressed-steel body. With a maximum speed of 45 m.p.h., the scooter has a cruising speed of 35 m.p.h. A twist-grip gear-shift for heavy traffic and a clutch needed only to start in first gear are other innovations.

Science News Letter, September 22, 1956

⚙️ **FIRST AID STATION** specially designed for factories and laboratories has doors fitted with positive-action catches that do not open as a result of nearby vibration. The cabinet is white and measures 20 inches by 24 inches by 11 inches deep. It is available completely stocked or empty.

Science News Letter, September 22, 1956



Nature Ramblings



By HORACE LOFTIN

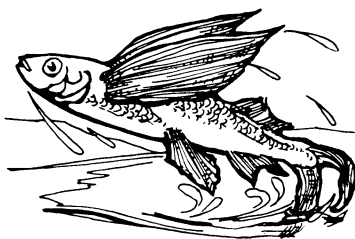
The Callao Painter

➤ A GREAT "OCEAN RIVER," some 500 miles wide, flows up the western coast of South America, bringing a constant mass of cold water from the Antarctic almost to the equator.

Marine life abounds in astonishing amounts in this cool "ocean river," the Humboldt Current, making the ocean off Peru one of the richest fishing areas in the world. Myriads of sea birds make their living from this abundant sea life, and their gigantic colonies have built up the famous guano deposits of Peru.

So in the cool Humboldt Current, fishes multiply, sea birds fatten and fishermen prosper—until a strange thing happens.

Almost overnight, death may take over the abounding sea life off Peruvian coastal waters. There may be so many dead and decomposing fish covering the water that the sea and air becomes foul. The guano-



producing sea birds begin to die off or abandon the guano islands.

The paint of ships passing through the devastated region may suddenly become blackened—and so this phenomenon is called the "Callao Painter," for the famous Peruvian port.

What has happened?

When it is winter below the equator (and summer above it), a current of warm

water from the north begins to flow towards the equator. Usually it flows only as far as the coast of Ecuador, but occasionally it goes farther south till it mingles with the Humboldt Current off Peru.

When this happens, then the "Callao Painter" may strike. The substitution of warm water has a disastrous effect on the marine life, accustomed to existence in a cool environment. Those creatures that cannot survive the sudden change perish, and the "Callao Painter" takes over.

The blackening effect of the "Callao Painter" is due to a gas, hydrogen sulfide, which is created by the decomposition of dead marine life.

The lethal effect of sudden changes of temperature on many fishes can be illustrated by cases somewhat closer to home.

It has been found, for example, that a vital substance of the cod albumen is coagulated at the temperature of the Gulf Stream off the coast of Florida!

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