

• New Machines and Gadgets •

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⚙️ **STUD WELDING GUN** can weld studs up through one-half inch in diameter. Claimed to be one-third lighter than other such welders, the gun weighs less than four pounds and is nine inches long. The small welder has a handle and barrel of plastic.

Science News Letter, October 19, 1957

⚙️ **TELEPHONE PENCIL** clips onto the edge of the telephone so that it is always handy. The mechanical pencil is fastened on an 18½-inch long chain and is designed to frustrate children who might want to wander with the pencil. Easily installed or removed, the clip can be placed on the left or right side.

Science News Letter, October 19, 1957

⚙️ **VISUAL AID** for those who work with a steel rule or gauge is a magnifying glass that clings to the rule. Housed in butyrate plastic, the glass is flanked by magnets in rectangular receptacles. The hold-fast magnifier makes easier reading of figures and markings.

Science News Letter, October 19, 1957

⚙️ **DEPOSITOR'S LIFT** for bank sits before a teller's window and raises customers up to the teller's sill. The hydraulic lift, designed for the convenience of young depositors, has a 20-inch platform equipped with a telescoping stainless steel skirt and



is raised or lowered by the cylinder. The platform, shown in the photograph, comes up to 12 inches above the bank floor.

Science News Letter, October 19, 1957

⚙️ **PORTABLE DISHWASHER - DRYER** is said to be designed for easy conversion to free-standing or permanent under-the-counter use. An adapter kit enables the apartment dweller to snap the two five-foot

water connection and discharge hoses onto any conventional faucet. The machine is 24 inches wide, 25½ inches deep and 36¾ inches tall.

Science News Letter, October 19, 1957

⚙️ **TABLE SET** modeled in the shape of a flower pot with flowers holds sugar, salt and pepper. The white pot holds the sugar, the red rose serves as a pepper shaker and the yellow rose as a salt shaker. The plastic set stands seven and one-half inches high.

Science News Letter, October 19, 1957

⚙️ **LAMINATING KIT** for permanently sealing clippings or pictures between clear plastic requires no water connections or installation. The kit includes a four-by-five-inch electric sealing press with a 300 watt 115 volt heater, two polish plates and 50 sheets of plastic. Refills of plates and sheets are available.

Science News Letter, October 19, 1957

⚙️ **DRIVEWAY REFLECTOR** "lights up" from all directions. Designed for parking lots, home driveways, boat docks and other applications, the reflector is made of a hollow three-inch "beehive" molded from transparent acrylic plastic. Screwed on to the end of an 18-inch rod, a row of these miniature lighthouses can mark a drive around a 90-degree curve.

Science News Letter, October 19, 1957



Nature Ramblings



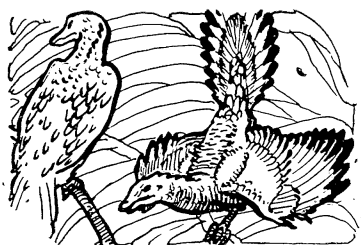
By HORACE LOFTIN

➤ SOME SIX or more million years ago, a new kind of experiment in living was begun. The new experiment was the evolution of feathers, arising in reptile-like animals from what before had been scales.

Other creatures had tried flight before, notably the insects. Among the larger creatures, the great winged lizards, the pterodactyls, had met a fair amount of success in taking to the air. But their wings of membranous skin were not enough for sustained flight.

Fossils dating about six million years of age represent the first true birds, odd creatures that seem to be a mixture of reptile and fowl. We call these fossil animals "Archeopteryx," meaning "ancient winged creatures." They were about the size of modern crows, but beyond this and the shape of their feet and legs the resemblance quickly ends.

The Ancient Winged Creature



Notice from the picture that the Archeopteryx had a long tail. This reptile-like tail contained 20 slender bones, placed end to end, with a pair of feathers for each bone. Modern birds have a stub of a tail, with all the tail feathers emerging more or less together.

Another primitive, reptilian characteristic of the Archeopteryx was the presence of three-fingered claws at the front of each wing.

Modern birds typically have three "fingers" that are generally concealed by feathers. An exception is the Hoactzin of South America, a primitive bird in many respects, which has long wing claws with which it climbs about in trees.

Another reptilian mark of the Archeopteryx is that it bore a fine set of teeth in skin-covered jaws. In structure and position in the jaws, Archeopteryx's teeth were quite similar to those of the crocodile.

It has been said—however unlikely it may seem at first glance—that of all the modern reptiles, the crocodiles probably are closest kin to the birds. Of course, this does not mean birds descended from crocodiles, but that they may share a common ancestor.

In spite of all its reptilian marks, the Archeopteryx was a true bird, for it bore the one unmistakable characteristic that all birds have and no other creature can claim—feathers.

Science News Letter, October 19, 1957