

# • New Machines and Gadgets •

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⊗ **BATTERY CARRIER** requires only one hand to carry either a six- or twelve-volt battery. The carrying tongs are almost an inch wide and one-eighth of an inch thick. Adjustable to any width, the tongs have grip claws at the ends for engaging the battery under its rim.

Science News Letter, December 21, 1957

⊗ **FLAME-RESISTANT ADHESIVE** can be used to glue together cotton, wood, plastic, glass and other decorating materials. Water-based, the adhesive can be thinned with more water, yet remains resistant to water when dry. It can be applied by dipping, brush or spray.

Science News Letter, December 21, 1957

⊗ **MAGAZINE-LOAD SLIDE VIEWER** is a hand-viewer for color slides in all sizes up to two by two. The slides stay in the sequence prearranged for them. Magnification is said to be seven times slide area. The viewer is available with battery-operated lamp housing or for house current operation.

Science News Letter, December 21, 1957

⊗ **WINTER CLEAN-UP TOOL** is a combination push broom, snow shovel and ice breaker. The non-matting bristles of the brush are monofilaments made of a styrene



plastic. The brush, when turned over, has a steel blade for scraping and breaking ice. The brush-shovel combination weighs three and one-half pounds.

Science News Letter, December 21, 1957

⊗ **ROBOT CASHIER** accepts a dollar bill and makes change automatically. In three seconds the bill-changing machine returns two quarters, three dimes and four nickels.

It can be adapted to give out other change from half-dollars to 100 pennies. The machine will accept wrinkled dollars but reject fake or foreign currency.

Science News Letter, December 21, 1957

⊗ **SMALL VISE** is capable of achieving any compound angle. The vise swings 360 degrees on any tangent to a half sphere, and locks in any position. Its head may be removed by loosening lock screws and lifting out. The unit stands 6½ inches high and is 5½ inches wide with a jaw opening of 2½ inches.

Science News Letter, December 21, 1957

⊗ **CIRCULAR CALCULATOR** is 6½ inches in diameter and described as doing the work of a 15-inch slide rule. One side is for multiplication, division, square root or proportions. The other side of the cardboard rule has 48 conversion tables.

Science News Letter, December 21, 1957

⊗ **HEAT CONTROL DEVICE** or thermostat makes possible a continuous flow of heat modulated in temperature with each degree of change in outdoor temperature, as well as fractional indoor changes. It is designed to work with all types of hot-water or warm-air heating systems.

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## Nature Ramblings



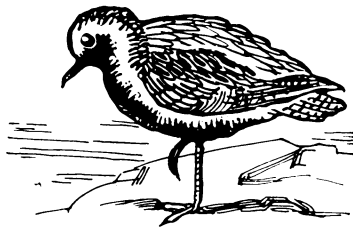
By HORACE LOFTIN

► LAST SPRING, almost anywhere along the Atlantic or Pacific beaches, or along the Gulf coast, you might have seen a large, handsome shore bird standing with almost comic dignity by the edge of the water. His cheeks, throat and belly would be shiny, solid black, sharply distinct from his whitish back.

From his general shape and the rather short, heavy bill, you would know he was a plover. From his large size, 11 inches, and his black underparts, you would know he was either a golden or black-bellied plover. To be certain, you would have made him fly, and a patch of black feathers beneath each wing in the "armpits" would definitely mark him as the black-bellied plover.

If you go to such a place today, during this winter month, you might see a dull grayish bird of the same shape and size, but lacking completely a distinct and colorful

### Black-Bellied Plover



pattern beneath. There is no question this time, however. This somber bird is the black-bellied plover in winter dress; the golden plover is wintering far in the southern tip of South America now.

Much has happened in the life of this bird between last spring and today.

Shortly after your brief view of him in his nuptial dress, he disappeared from your shores to fly somewhere into the arctic tundras of Alaska and Canada. There he mated in May, and soon was guarding a

nest of four eggs which his mate was incubating. He was a very combative sentinel, and when predatory birds came near the nest he attacked them vigorously, driving away even large gulls and skuas. From time to time he relieved his mate of the duty of incubating the eggs.

The four eggs hatched after 23 days and for some time thereafter both parent birds were extremely solicitous of the young. But in a very few weeks the babies were almost self-reliant. These soon joined other young to form a flock, and our black-bellied plover father deserted wife and children to return to the south for winter. He began to lose the colorful nuptial dress about this time, so that by early fall he was in the drab gray he wears today.

Black-bellied plovers winter from British Columbia on the Pacific and New Jersey on the Atlantic all the way south to Brazil and Chile. How they find their way back and forth each year over their migration path remains one of the great unsolved mysteries of nature.

Science News Letter, December 21, 1957