

# New Machines and Gadgets

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⚙️ **FLAT-TIRE FIXER** repairs and pumps up flat tires easily. The aerosol container holds a sealant combination of butyl rubber and plastic and compressed air. Attached to the tire valve, the device seals the puncture and inflates the flat in about two minutes. No jack is needed.

• Science News Letter, 78:336 November 19, 1960

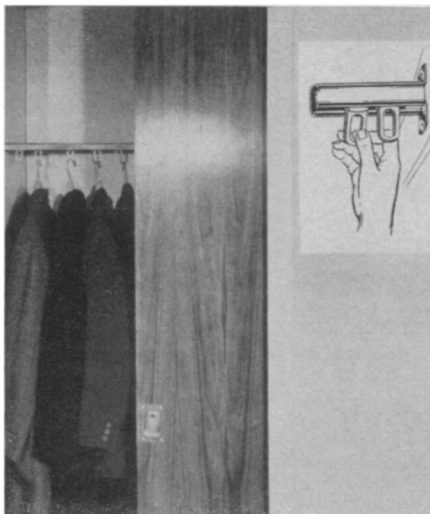
⚙️ **TAPERED GAS TANKS**, smaller at the bottom than at the top, more readily fit the contours of a boat. Many boat companies install them as original equipment with filling tubes and vents. Longer cruising ranges are possible with the increased gasoline capacity.

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⚙️ **VINYL CEILING PANELS**, with circular holes forming an open grid, diffuse light from a lighting system installed above the panels. The non-combustible panels reduce glare, thus permitting higher illumination overall. They were especially designed to give proper lighting for optical-type gauges and instruments.

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⚙️ **CLOSET BAR AND GLIDES**, shown in the photograph, prevent "hanger-tangle." The nylon glides are easily inserted, even after the bar has been mounted, and they are just the right distance apart to keep



clothes neatly separated. The nickel-plated steel bars are available in four lengths: 18, 30, 48 and 72 inches, extendable respectively to 30, 48, 72 and 120 inches.

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⚙️ **SOIL MOISTURE GAUGE** tells the amount of moisture in the soil at the root zone of plants. To use, the thermometer-like gauge is filled with water to a "fill

line and then the gauge's porous ceramic tip is pushed into the earth.

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⚙️ **SOLAR CELL MODULES**, self-contained power-generating units mounting five shingled, silicon solar cells, are now available for the home hobbyist or experimenter. Terminals and battery polarity markings are located on tabs at the end of each plastic case. The modules may be used in combinations to power radios, relays, or for automatic switching devices.

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⚙️ **REMOTE-FOCUS PROJECTOR** permits focusing as well as changing slides with a remote control device. A press of a remote control button moves the lens in or out for sharp focus. The focusing unit also contains a beam of light that can be used to point out details on the screen.

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⚙️ **ROLL-FORM FIBERGLASS PANELING**, cross-corrugated and reinforced, speeds the installation of translucent skylights, sidelights and awnings. The new material comes in 50-foot rolls, 40 inches wide, in seven colors. The flexible material is shatterproof, weather-resistant and impervious to corrosion.

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## Nature Ramblings



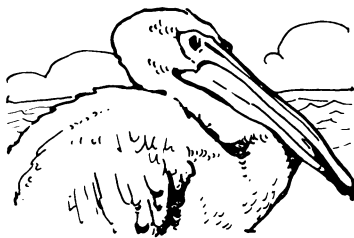
➤ **THAT WONDERFUL BIRD**, the pelican, has been said to "fly with the dignity of a Roman senator and dive with the grace of a cow"! While this description is picturesque, to say the least, it is also quite accurate. A stately line of brown pelicans skimming the water, their wing beats slow and precise, is as graceful as a ritual dance.

On the other hand, the sudden plunge of one of these huge birds from a height of 15 to 30 feet into the sea is like the fall of a big rock. Water splashes all around, and the sound of the impact can be heard for a considerable distance.

The brown pelican's dive—a common sight along the south Atlantic and Gulf coasts—is its usual way of catching food. Large and small fishes seen from the air furnish the target, and in about one out of three tries the brown pelican emerges with a meal in his pouch.

If a dive is unsuccessful, the big bird usually takes to the air immediately. But if a fish is caught, he usually sits quietly on the water for a few minutes with his bill pointed downwards. This serves the im-

### The Wonderful Bird



portant job of draining the big pouch of water. Then the head is thrown back and the catch swallowed.

Having to wait for that oversize pouch to drain has cost many a pelican his hard-earned meal. This is the time when frigate birds, gulls and other "robber birds," swoop down on the pelican to snatch the fish from the big bird's mouth!

Not all pelicans are high diving experts, however. The white pelican, which breeds from British Columbia south to California and Texas, seldom if ever dives for its meals but fishes by "teamwork."

When a school of fish is sighted, these pelicans may either form a circle to drive the fish into a compact pile or they make a semicircle to force the fish into shallow water. Once the fish are bunched, the pelicans sit among them and scoop them up in their pouches.

Pelicans are excellent and efficient fishers. Complaints have often been made that these birds are serious competitors for commercial species, leading to reduced catches by the fishermen.

Studies of the food habits of the brown pelican do not support such criticism. One scientist reported that of over 3,000 fish found in a pelican rookery, only 27 were commercially important species.

The fish-eating habit of pelicans has made them of great value to man in certain areas. The great guano (bird excrement used for fertilizer) deposits of the islands off western South America, worth millions of dollars annually, are due in large part to tremendous concentration of pelicans there.

—HORACE LOFTIN

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