

# • New Ideas and Gadgets •

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⚙️ **CAR HEAD REST** adjusts to the exact position desired to support the head, neck and shoulders, helping prevent neck strain and backache while motoring. Fitting on any automobile front seat, the vinyl covered foam cushion can be easily installed or removed. Available in tan, white or gray, it wipes clean with a damp cloth.

• Science News Letter, 81:368 June 9, 1962

⚙️ **PLASMA-FLAME HANDTORCH** has a silicone rubber handle and head that withstand the intense heat produced at the nozzle. Extreme velocities achieved by the heated gas as it leaves the torch nozzle allows cuts in both ferrous and non-ferrous metals to be produced more quickly and at reduced cost.

• Science News Letter, 81:368 June 9, 1962

⚙️ **LIGHTWEIGHT PICNIC JUG** of blue and white plastic weighs only 13 ounces and has a full gallon capacity. Easily filled through its 3½-inch opening at the top, the insulated jug keeps food cold for 24 hours or hot for 14 to 16 hours. A special plastic liner will not retain food odors. Fully insulated cap has a vented spout for pouring.

• Science News Letter, 81:368 June 9, 1962

⚙️ **UTILITY BOX**, compact and durable, is molded of polypropylene plastic. Cover and base of the non-rusting box are fabricated in one piece. Ideal for anglers, as well as for general utility purposes, the box,



shown in the photograph, has a hinged compartmented tray for small items. Stains and grease marks are easily wiped off the leather-like outer surface.

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⚙️ **MULTI-FIT HOSE COUPLINGS** will fit and mend any size plastic hose to form a leakproof connection. To install, the hose is cut, the coupling inserted and twisted to

obtain a tight fit. No special tools are required.

• Science News Letter, 81:368 June 9, 1962

⚙️ **PORTABLE HUMIDITY INDICATOR** gives direct relative-humidity readings for ambient temperatures from 20 to 130 degrees Fahrenheit without the need for conversion tables. Powered by mercury battery and accurate to within 1.5% for humidity ranges from 2% to 100%, the transistorized indicator is useful for display cases, storage bins and warehouses.

• Science News Letter, 81:358 June 9, 1962

⚙️ **AIR-COOLED DEUTERIUM ARC LAMP** for use in spectrophotometry eliminates the need for a water cooling system. Producing up to 180% more ultraviolet energy than air-cooled hydrogen arc lamps, it also produces more ultraviolet energy in a spectral range as low as 1,700 angstroms. In educational fields, the lamp is used as an ultraviolet source.

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⚙️ **ALUMINUM-PIPE DOPE** for pressure-tight, threaded joints acts as both lubricant and sealant. Available in a squeeze tube, it is useful in aluminum pipe in applications such as plumbing and fuel systems and air instrument lines. Treated threads have endured 50 joint tightenings and breaks with no appreciable wear.

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## Nature Ramblings



### Cecropia Moth

Photograph by LYNWOOD M. CHACE

Text by WILLIAM E. SMALL

► **LATE IN THE EVENING** on a warm summer night a large bat-like form may appear at the window. It is likely to be the Cecropia moth (*Samia cecropia*), largest in this country, with a seven-inch wingspan.

The large fuzzy body of Cecropia is a rich red, with clean white stripes running across it. Its wings are reddish-brown, with white and red bands along the edges. A light crescent-shaped spot, resembling the quarter moon, stands out in the center of the triangular wings.

These moths can be found in most states east of the Rocky Mountains, although collectors and natural enemies have dwindled their once large populations. In the Rockies and on the Pacific Coast, Cecropia is replaced by *Samia gloveri* and *Samia euryalus*. The moths have no mouths with which to eat or drink, thus usually live one short week, enough time to mate and lay eggs for the next cycle.

Sex attraction is perfume, sent out by the female to attract her mate. The male senses the odor with his long antennae and may be attracted for several miles.

Eggs are deposited on twigs or leaves, and the larvae bite their way out. They are at first tiny, but grow very fast, molting many times. Their green bodies are covered with rows of red and yellow knobs and spines, with touches of blue. The head is black and the six forward legs are yellow.

Since the Cecropia is a silk moth, the caterpillar builds a fine cocoon on a twig, in which to retire for the winter, awaiting emergence in the spring or summer as another giant moth.

• Science News Letter, 81:368 June 9, 1962