

• New Ideas and Gadgets •

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⚙️ **UTILITY SHOP LIGHT** that lays flat on the floor without rolling is also equipped with a powerful magnet for mounting or suspending from any ferrous metal. A wire framework which also protects the bulb permits adjusting the light beam at various angles. The unit which holds up to a 300-watt lamp has a hook for hanging and a removable reflector.

• Science News Letter, 82:80 August 4, 1962

⚙️ **GLASS COLOR FILTERS** for instrument and switch industries transmit light of uniform brightness from nearly all angles. Made of low expansion borosilicate glass, they have hard surfaces which are heat- and abrasion-resistant. A new process permits precise color control. The filters can be made in colors and sizes according to specifications.

• Science News Letter, 82:80 August 4, 1962

⚙️ **TRANSISTORIZED INTERCOM SYSTEM** in kit form that has no wires or cables can be easily assembled for use in home, office or shop. Any number of stations may be added to the portable two-station system which operates on AC or DC. A "squelch" circuit cuts power line interference and provides static-free standby operation. Complete instructions are included.

• Science News Letter, 82:80 August 4, 1962

⚙️ **SKIN DIVER'S KNIFE SHEATH**, shown in the photograph, molded from



tough, lightweight plastic is shaped to conform to the diver's leg. Held in place by two straps, the sheath can be fastened either to the leg or weight belt. The sheath keeps the knife readily accessible while permitting free movement.

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⚙️ **HEIGHT-RETARDING CHEMICAL** produces strong, short-stemmed chrysanthemums and improves foliage while retaining

flower size. The growth regulator produces potted plants at desired heights. The chemical is also useful in home gardens since short mum plants require no staking.

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⚙️ **HUB CAP LOCK**, made of strong rust-proof aluminum, protects hub caps from theft or accidental loss. The lock, which is screwed on over the air valve of the tire, fits any car. Two custom-fitted keys, numbered for replacement if lost, are included with a set of four locks. The locks also guard against air loss from the tires.

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⚙️ **MECHANICAL ROTARY SEAL** for laboratory glass apparatus provides protection against reactive chemicals and contamination of foods and drugs. The dual seal, which withstands vacuums below one millimeter and pressures up to 25 pounds per square inch gravity, is used with standard taper glass apparatus. Easily assembled and disassembled, its rotating action can be seen through its glass housing.

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⚙️ **COMPLEX-NUMBER SLIDE RULE** calculates complex-numbers and formulae plotted on a plane in the same way a conventional slide rule handles real numbers. Made of brass and plastic, it consists of two cylinders that slide over each other. Results are read off directly in polar or Cartesian form. Complete instructions are included.

• Science News Letter, 82:80 August 4, 1962



Nature Ramblings



Mosquito

Photograph by LYNWOOD M. CHACE • Text by WILLIAM E. SMALL

► BUZZ, HUMMMM—Ouch!—smack! A typical sound on a typical summer evening out doors, and another female mosquito got away with some human blood.

The mosquito is a delicate-bodied, long-legged insect. It belongs to the family Culicidae. Some 2,000 species in 29 or 30 genera are found in various countries throughout the world.

Perhaps the mosquito's persistence, its annoying bite, the high-pitched hum are the reasons why it is most unpopular in this country. But the long, sharp proboscis, the needle-like snout, is more than annoying in many countries; it is the injector of diseases ranging from yellow fever and malaria to encephalitis.

The mosquito has delicate legs, feathery antennae, wings decorated with scales, and a long, graceful proboscis.

The male mosquito lives a relatively short and simple life, attacking nothing but the nectars of plants. It is the female which leaves men angry, sick and dying by sticking her "nose" where it should not be. She lights on her victim and pierces the flesh, injecting saliva into the victim's system to prevent blood clotting, along with infectious diseases and microscopic protozoans carried from person to person. After filling her abdomen with blood, the mosquito retreats to digest the meal before laying her eggs.

Mosquitoes lay eggs in damp soil and on the surface of water.



In 24 to 72 hours, "wigglers" hatch. Swimming upside down, the larvae breathe with a snorkel extended above the water.

Soon the wriggler molts, turning right-side-up to breathe with two horn-like organs. In a few more days the adult emerges, ready, in the case of the female, to attack warm-blooded animals.

• Science News Letter, 82:80 August 4, 1962