

# • New Machines and Gadgets •

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⚙️ **NUT LOCKER** is a sealant designed to keep nuts from loosening on lawnmowers, appliances, toys, cars and power tools. Hardening in 12 hours, the sealant forms a plastic bond without heat or fluxes needed. Shake-proof, the nuts can be removed with ordinary tools and re-used.

Science News Letter, August 31, 1957

⚙️ **OMNIBUS TEMPLATE KIT** for structural and reinforced steel symbols is designed to speed up planning and drafting. There are five templates made of rigid vinyl plastic. Four cover wide flange steel detailing and the fifth, reinforced steel details.

Science News Letter, August 31, 1957

⚙️ **TURRET MICROSCOPE** has three eyepieces and two ocular lenses that combine with four objective lenses on a click-stop turret to give eight magnifications from 600X to 25X. The 'scope is 11 inches high with rack and pinion focusing, and has five stop light control. It also has flat and concave sub-stage mirrors.

Science News Letter, August 31, 1957

⚙️ **FILTER REPLACEMENT** for air conditioners can be cut like cloth to fit all sizes and models of room and window air conditioning units. The filter shown in the



photograph is made of a layer of acrylic fiber, bonded to a stiff cotton mesh backing. The filter material is available in a 15-by-24-inch sheet that is one-half inch thick.

Science News Letter, August 31, 1957

⚙️ **SOLDER-TYPE ALLOY** is flux-cored and permits a weldor to join or seal steel, stainless steel, copper, brass, bronze, Monel and Inconel. The application temperature range is from 400 to 500 degrees Fahrenheit.

All types of heating can be used with the alloy.

Science News Letter, August 31, 1957

⚙️ **HOME FIREPLACE**, prefabricated, features a built-in flexible type fire screen. The fireplace has a three-casing insulation and a cooled air-flow for clearing combustibles. Measuring 56 by 46 by 24 inches, the fireplace-chimney combination can be set on any flooring material.

Science News Letter, August 31, 1957

⚙️ **LIGHTED PUSHBUTTON SWITCH** can be mounted on one-inch centers horizontally or vertically. The indicator lamp socket is fastened to the outer body of the switch and does not move when the button is pushed. Terminals of the light are separate from those of the switch.

Science News Letter, August 31, 1957

⚙️ **BOOM TRUCK** has a hydraulically controlled boom movement that permits accuracy within 1/100 of an inch. The movement can also be made in either vertical or longitudinal directions. The boom itself reaches four feet beyond the front end of the truck. Capacity at maximum extension is 1,500 pounds and with the boom retracted, 2,500 pounds.

Science News Letter, August 31, 1957



## Nature Ramblings



By HORACE LOFTIN

➤ THE DOG'S preeminent position as "man's best friend" would be in danger of passing over to certain insects if we were half way logical about the matter. The reason for this is somewhat paradoxical, hinging on the fact that insects are their own worst enemies.

A good percentage of the great insect tribe is predatory or parasitic on fellow insects. Their death-dealing effects on their kinsmen make man's attempts at chemical and mechanical control of insects seem puny. If it were not for the ravages of these cannibals, mankind would soon be crowded off the globe by insect hordes.

Now, men usually ask for a certain amount of beauty or pleasantness of aspect in a friend, so the beneficial but ferocious-looking mantis or the ill-tempered parasitic wasps would never win the dog's long-held title of "best friend."

The pretty little lady beetles, however, by appearance and voracious appetite for harm-

Man's Best Friend?



ful insects, would certainly be a strong contender.

These pleasant-looking beetles, shaped like a half-globe and usually dotted with colorful spots, are familiar to everybody and bear a multitude of names, including "ladybug" and "lady bird." They have even slipped into our nursery rhymes:

"Lady bug, lady bug! Fly away home! Your house is on fire, your children will burn!"

They may look like ladies, but they do not act that way. Almost from the time

they emerge from their yellow or orange egg cases, they begin their endless feeding on scale insects, aphids and other soft-bodied insects and their eggs. The newly emerged larva devours one insect after the other during the 20-odd days of its juvenile life. Then after a short pupal stage, it emerges as an adult—fully equipped with ravenous appetite and powerful jaws for satisfying it.

The gardener who can boast of a contented colony of ladybugs can count himself blessed.

Late in the last century, the citrus groves of California became infested by the cottony-cushion scale, a tiny insect from Australia which threatened to wipe out the industry.

An expert from the U. S. Department of Agriculture went to Australia, searching for the natural enemies of the pest. He discovered that a lady beetle species kept the pest in check there, and he collected and imported 514 of them into California.

In a short time, the lady beetles multiplied and spread throughout the California groves, ending dramatically the ravages of the destructive scale.

Science News Letter, August 31, 1957