

# • New Machines and Gadgets •

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⚙️ **LABORATORY FURNACE** can be used in the determination of carbon, hydrogen, sulfur, fluorides and oxygen. The furnace operates over a temperature range of from 150 to 1,130 degrees centigrade. It is fourteen inches long, nine and one-quarter inches wide and six and one-half inches high.

Science News Letter, January 11, 1958

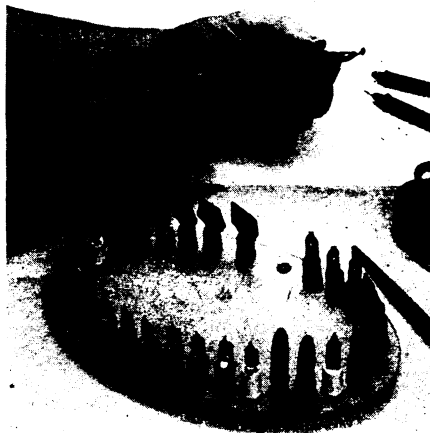
⚙️ **AUTO LIGHT SWITCH** keeps your headlights on long enough for you to walk 200 feet and then shuts them off automatically. The switch, which does not interfere with the operation of the regular light switch, can be made to control headlights, back-up lights or a spot light. It can be installed on any make car or truck.

Science News Letter, January 11, 1958

⚙️ **WOOD SEALER** eliminates the need for added use of filler on raw, close grained woods. Drying in less than 20 minutes, the sealing is said to be waterproof, non-slippery and able to withstand alcohol, scrubbing and scuffing.

Science News Letter, January 11, 1958

⚙️ **PLASTIC NIBS** for artists and draftsmen are arranged on a palette, shown in the photograph, for quick and handy use.



The threaded nibs, each of which holds a steel point, screw into the matching pen holder. The interchangeable, butyrate plastic nibs are available in different colors.

Science News Letter, January 11, 1958

⚙️ **PREFINISHED PLYWOOD PANELING** boasts a surface of plastic vinyl resins for protection. Nine panels, in a choice of oak, mahogany, birch or walnut, can cover

12 feet of wall to an eight-foot height. The prefabricated panels are ready to put in place or can be cut and planed as desired. They are washable.

Science News Letter, January 11, 1958

⚙️ **DINOSAUR TRACK** is a reproduction of an impression left by an *Anchisaur* some 170,000,000 years ago. The 10-inch track is made of plastic and retained in a gum frame. A printed legend with a drawing and brief history of the *Anchisaur* is attached to the back of the frame.

Science News Letter, January 11, 1958

⚙️ **METAL SHELVING UNITS** can be hung on any door or wall of the house. Flexible, the individual shelf can also be tailored to fit any door and the shelf height adjusted to needs. The metal shelves are available in kits for almost any room or area in the house.

Science News Letter, January 11, 1958

⚙️ **TELEPHONE LOCK** prevents unauthorized telephone calls without interfering with incoming ones. Made of a black phenolic plastic, the lock is designed to fit all Bell system phones. It cannot be removed from the telephone without the use of a key.

Science News Letter, January 11, 1958



## Nature Ramblings



By HORACE LOFTIN

➤ THERE IS one word that sums up the insects: prodigious!

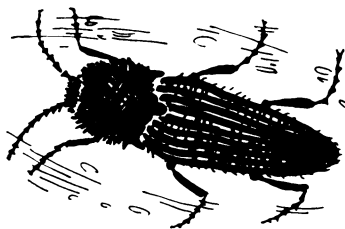
According to Webster, this means "extraordinary in bulk, quantity or degree." Insects fit all these categories and more.

Take their size, for example. The smallest insects are approximately 1/100 of an inch in length, while the largest are more than eight inches long. Wingspread may be only 1/50 of an inch, but some long extinct dragonflies had wingspreads of over two feet. Some tropical beetles have a body as large as a man's fist.

Take their quantity. In terms of individuals, there may be millions of insects to the acre. In terms of numbers of species, several hundred thousand different kinds of insects are known to science, probably three times the total of all other animal species.

Reproductively, they are prodigious. The common fruit fly, for instance, may produce

### Insect Prodigies



as many as 25 generations in a single year, with about 100 young per generation (half male, half female). Assume that all these offspring and their descendants lived and reproduced themselves at the same rate. In one year, all the descendants of the original parents, packed together 1,000 to an inch, would form a ball 96,000,000 miles in diameter!

With this in mind, we can be thankful that certain insects have prodigious appetites! The chief enemies of insects are

other insects, those that feed on eggs, young and adults of their neighbors. Actually, the amount of predation, the hazards of weather and competition for food is so great that only the minutest fraction of insect eggs laid ever lead to adult insects.

The appetite we spoke of, along with their great numbers, calls for a prodigious range of foods if all are to be fed. Many are strictly vegetarians, even specializing on the part of the plant they eat. Some chew their food, others suck the plant juices with specialized mouthpieces. The meat-eaters among the insects range from cannibals through feeders on human beings.

In this quantitative sense, the insects can well be considered to be the dominant group of animals on earth. In a very real way, they present a constant challenge to man, who considers himself the regent of the animal kingdom. At best, we have merely learned to coexist with the prodigious insects!

Science News Letter, January 11, 1958