

• New Machines and Gadgets •

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⚙️ **MECHANICS KIT** designed for home use contains a quarter-inch drill and more than 50 accessories. Included are bits for wood or metal, sanding discs, a grinding wheel, a 21-piece socket wrench set and a buffing wheel. The drill kit comes in a metal carrying case.

Science News Letter, August 23, 1958

⚙️ **ONE-EGG INCUBATOR** permits the entire chick hatching process to be viewed through a clear plastic dome. An egg is inserted under the dome and the unit is plugged into a wall outlet. The dome is one and one-half inches in diameter.

Science News Letter, August 23, 1958

⚙️ **UNDERGROUND REFUSE RECEIVER** has an aluminized steel top and rim and a toe-step lid lifter that responds to ordinary foot pressure. The receiver's outer shell is made of heavy gauge steel and coated with black asphaltum paint. The inner removable can is made of galvanized steel. The receptacle is available in four sizes.

Science News Letter, August 23, 1958

⚙️ **SILICONE RUBBER CHANNELING** is designed to insulate glass jalousies. The channeling is made to be placed over the top edges of jalousie panes and cut to fit



with a pair of scissors, as shown in the photograph. It is said to keep in cool air from air conditioning and small insects out during the hot weather.

Science News Letter, August 23, 1958

⚙️ **WATER-FILLED PULL-TOY** has a turtle that swims and rings a bell. Held

under a clear plastic dome, the toy is described as leak-proof. It is made entirely of plastic and is brightly colored.

Science News Letter, August 23, 1958

⚙️ **GARDEN TOOL** is a three-in-one helper. Made of aluminum, the tool can be used as a rake, a hoe and a weed digger. It is reversed to convert it from a hoe to a weed digger. To use as a rake, press a button on the handle and pull a trigger. The rake adjusts to any desired width from six to 13½ inches.

Science News Letter, August 23, 1958

⚙️ **ILLUMINATED VIEWER** has a 25-by-34-inch viewing area and is four and one-half inches thick. Stainless steel film clips hold negatives or plates in place over the viewing surface. A square frame permits the use of a "T" square to convert the viewer into a stripping table.

Science News Letter, August 23, 1958

⚙️ **RECHARGEABLE DRY SHAVER** operates without cords or batteries. The accumulators and complete recharging set are built in. Recharged by plugging into an electrical outlet for a few hours or overnight, the shaver has enough power for a week of daily use.

Science News Letter, August 23, 1958



Nature Ramblings



By HORACE LOFTIN

➤ ALL OF THE WORLD'S food ultimately comes from plants, since plants alone among all living things are able to manufacture organic material from the raw materials of carbon and water, using the sun's energy to bring about the process. One special ingredient that plants have which helps them to create food is the green pigment "chlorophyll."

It is this chlorophyll which gives the typical green color we associate with the world of plants.

Although all food comes from plants, not all plants are able to manufacture food. Most plants lacking chlorophyll are as dependent upon their green brethren for organic material as are the animals. Foremost among these "plant-eating" plants are the fungi, such as the familiar mushroom.

Mushrooms normally get their nourishment from dead, decaying organic material.

"Plant-Eating" Plants



Twisting and turning in a great tangled mat in the ground under the "umbrella" of the mushroom are numberless fine threads, called mycelia. These threads absorb food material and water, grow and enlarge and eventually give rise to more typical mushroom umbrellas above ground.

As a matter of fact, the umbrella or "cap" is made up of these threads. When the reproductive season is at hand, certain of the threads which are balled up to form a "button" line up parallel to each other.

These begin to grow, with the whole taking the mushroom shape of stalk and cap.

Certain threads on the newly formed cap produce spores by the millions. It is calculated that some mushrooms can release half a million spores per minute continuously for three or four days! These minute cells may be carried for miles by winds or water. Whenever they come to rest in a suitable spot, they begin to shoot out filaments which grow into new networks of threads and thus into new plants.

Threads from a single spore usually spread radially at a more or less uniform rate as the soil becomes depleted of food. Thus, when the mushrooms make their appearance above the soil, they often form a circle, the "fairy ring."

For some mushrooms, the yearly outward spread of these "fairy rings" is well known, and from the size of the rings their ages can be calculated. In England, some patches have thus been dated to be from 400 to 600 years old.

Science News Letter, August 23, 1958