

New Machines and Gadgets

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⚙️ **LATTICE MODEL KITS** are now available for the building of lattices. These models provide excellent three-dimensional visual demonstrations of the crystal structure of matter for chemistry, solid state physics, and mineralogy. Different lattice models can be built to show the systematic arrangement of crystals and crystallographic properties.

• Science News Letter, 78:208 September 24, 1960

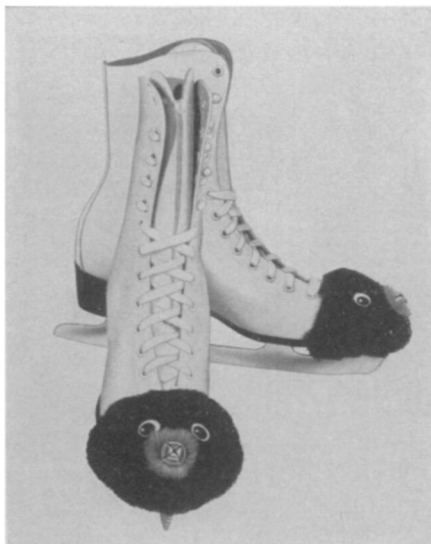
⚙️ **CREATIVE BUILDING BLOCKS** are a new educational toy for tots. With them anyone from five to 90 can create geodesic domes, houses, rockets, animals, trains, and a multitude of other structures. Made of sulphite colored panes, joined with rubber bands on flanged edges the blocks are beautifully designed and durable.

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⚙️ **CLOSET-DOOR CADDY** hangs conveniently inside any closet door, and stores neatly, soap, waxes, dust-pan, polish, laundry supplies as well as many other household commodities. This 20-inch by 60-inch plastic container has eight pockets and specially fitted snap-open loops for brooms and mops.

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⚙️ **TOE MUFFS**, plastic lined for extra protection, are designed to keep ice skaters' toes warm and dry. The muffs, shown in



the photograph, are easy to fasten to skates and will not slip off. One size fits all skates, and they are available with matching earmuffs.

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⚙️ **DISPOSABLE TORCH KITS** contain six disposable torch heads, six throw-away wicks, two five-foot torch standards, and two spiral metal torch head holders. Each

torch head is a can of fluid that burns from four to six hours, supplying bright light for any outdoor use. The cans are available in six-pack refills, complete with six wicks. The burning torches repel insects.

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⚙️ **DECORATIVE GLASS TRANSFERS** prevent persons from walking into glass walls and doors. The transfers are glue-faced and thus are put face down on the surface to be decorated and a paper backing removed. They are semi-translucent after installation. Many of the transfers are suitable for homes; others are designed for churches, hospital buildings and banks.

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⚙️ **FURNACE MUSIC UNIT** turns the hot air registers in a home into a speaker home music system. The unit is attached to existing radio, TV or record player and to a furnace plenum or dome. The mechanism resists heat and condensation. Its steel case keeps dust out.

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⚙️ **ODORLESS SHOE POLISH** took two years to develop, the manufacturer reports. Among the no-odor materials used in the paste polish is lanolin. The new polish is marketed in brown, black, tan, ox-blood, charcoal brown, cordovan and olive.

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Nature Ramblings



➤ **BETTER WATCH OUT**, 'cause if a spider writes your name in his web, you will die before morning!—Old superstition.

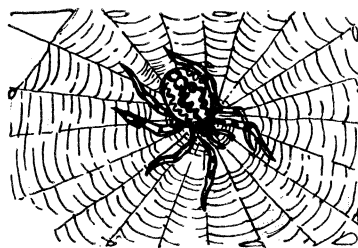
Many a boy has spent many an hour puzzling over the heavy white marking across the center of the garden spider's elaborate web. This marking does look superficially like writing, and with a bit of imagination you might make out a cryptic word from the zigzags.

But the spider is more engineer than sorcerer, and he is more interested in adding strength to his web by this thickened thread than in mystifying boys.

The spider's web may be his home, his automobile, his fortress, his nursery and his grocery shop. Not all spiders use their silk to capture prey. Most of them employ it in the preparation of a place to call their own. Dwellers in hidden recesses line their minute caverns with threads from their spinnerets. Trapdoor spiders hinge the plugs of earth that protect their little caves with strong webbing.

Young spiders are dispersed throughout the countryside by parachutes of silk. When

Come Into My Parlor . . .



they emerge from the cocoon (which is also made of silk) they typically climb to some high spot, then let out an abundance of thread called gossamer which is caught in the wind and carries them aloft. It does not take a stiff breeze—just a simple upward heat current will take the tiny aviator up and up. This traveling on gossamer wings explains how spiders turn up in some very surprising locations.

The best known function of the spider's web is, of course, as a means for trapping

and securing prey, though only certain of the spiders resort to this trick. The web trap may be a rather simple and disordered line of threads placed in a likely spot. But a great number of the web weavers make an elaborate and highly patterned web, capable of holding large prey. Each kind of spider has its own distinctive web design.

Typically, a web-waving spider will place his net across some open spot likely to be crossed by an insect.

When the web is spun, the spider retreats to an obscure spot, though keeping a line on the center of the web. As an insect strikes the net, the line to the spider is moved and this sends him quickly out to meet the prey.

If the insect is small, a quick dose of poison quiets its struggles and the spider dines immediately. If a larger prey is taken, there may be a struggle, with the spider lassoing the insect with copious amounts of thick silk. Thus bound up, the insect is kept to serve the spider for several meals!

—HORACE LOFTIN

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