

• New Machines and Gadgets •

For addresses where you can get more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., Washington 6, D. C., and ask for Gadget Bulletin 639. To receive this Gadget Bulletin without special request each week, remit \$1.50 for one year's subscription.

☛ **PRE-FABRICATED KNOTTY-PINE** room interiors are made to order from plans supplied by architects or homeowners. The interiors come complete with facing for doors, windows, closets and decorative trim necessary "to do the job." Numbered pieces help the buyer to install the interior himself.

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☛ **PRE-PAINT AUTO** cleaner "shampoos" the metal before spray painting is begun. The solvent removes films of silicon polish and wax as well as particles of grit and dust, leaving the body ready to be sanded, washed and painted.

Science News Letter, September 13, 1952

☛ **VALVE SHIELDS** that fit snugly over joints in valves protect personnel from being sprayed by acid and other hazardous chemicals should packing in the valves fail. Made of a synthetic rubber that resists chemical deterioration, the shields have a flower-pot design and are easily installed.

Science News Letter, September 13, 1952

☛ **FISHING ROD** made of stainless steel, as shown in the photograph, is small enough to be carried in the pocket of a sport jacket. Measuring only 16½ inches from tip to handle, the rod has a sort of pistol-



like grip, and has ½-inch holes perforated in the handle. A slot directly under the reel can be used as a bottle opener.

Science News Letter, September 13, 1952

☛ **ALUMINUM STORM** window that doubles as a window screen in the summer is quickly installed, even on out-of-true win-

dows, and requires no protruding tacks or channels. Its screen or storm sash can be stored in the upper part of the window when not in use.

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☛ **CANDLE LAMP** with a flame "carburetor" keeps candles from dripping and lengthens their burning lives. The candle is enclosed in a special holder having a cap that fits over the candle tip. A small wire encircles the wick, regulating combustion and concentrating the flame's heat there. As it burns, the candle is pushed up in the holder by a spring.

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☛ **SAW SET** contains a carved handle of natural hardwood and five blades. Bolted into the handle with a rust-resisting wing nut, the blades include a 16-inch panel saw, a 12-inch mitre back saw, a 15-inch pruning saw, a 12-inch compass saw and a 10-inch keyhole saw.

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☛ **SPONGE-RUBBER PAD** for hunters protects shoulders from painful gouges due to rifle recoil. Enclosed in a cloth pouch, the pad can be buttoned into a hunting coat or shirt, or fastened in with safety pins.

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• Nature Ramblings •

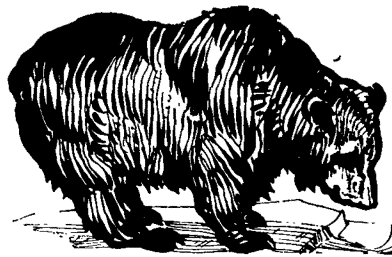
► **BEARS ARE** beginning to go into winter quarters now up in Canada, and at the higher altitudes of their range in our own Rockies.

At lower latitudes and altitudes they will remain active for a few weeks longer, but by the time snow flies they all will have retired for the winter. Only in the hammocks and canebrakes of the Gulf Coast region are you likely to find bears on the prowl the year round.

This long winter drowse of the bears is usually called hibernation. Actually, however, it is not true hibernation. True hibernation, such as is found in ground squirrels and marmots, is a state of death-like sleep, wherein the animal's breath and pulse almost stop and its temperature drops to a point very little above that of its environment.

An animal in this state is exceedingly difficult to arouse: pinch it, poke it, even stick pins in it, and it just continues to lie limp as the proverbial dishrag.

Bedtime for Bears



A bear in its winter sleep is quite different. It breathes at about the normal rate for any sleeping animal and its body temperature remains high enough to melt snow that may sift down on its fur.

It is not particularly difficult to arouse, and it may even wake up of its own accord and emerge for a shorter or longer period.

This kind of winter sleep should be called dormancy rather than hibernation.

Bears retire for the winter before winter really sets in—they may be found settled down for their long sleep while the weather is still rather mild and there is plenty of food available in the woods.

Invariably, bears "going to roost" before cold weather comes are very fat. The winter-prowlers are very likely to be animals that did not succeed in putting enough fat on their ribs to induce a tendency to become dormant.

There is an internal index to this physiological drowsiness. In dressing fat bears killed at the beginning of winter, the stomach has been found empty and contracted into a tight, hard knot, into which it would be impossible to get any more food.

Apparently when the bear reaches a certain state of fatness it just becomes unable to eat anything more, so all there is left to do is sleep.

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