# Useful Kinks for the Car Owner

F THE car is kept in an unheated garage, a motor cover arranged as shown in Fig. 1 will promote easy starting in many cases. Of course it will do no good if the car is not used for days at a time, but if it is operated daily, enough heat will remain in the motor overnight to make it start easier. Use a wooden frame from which to suspend a very thick hood cover made of old blankets and quilting. The counterweight should be heavy enough so that the cover will stay either down or up as desired; in other words, it should exactly equal the weight of the frame and the hood cover.

## Insulating the Floor

Figure 2 illustrates a simple and inexpensive way to insulate the floor and help to keep the car warm. Sheets of corrugated cardboard cut from large packing cartons should be cut the right size using the floor mat as a pattern. Two or more layers will prove effective as heat insulation and, in addition, the noises that get into the closed body by way of the floor boards will be very noticeably reduced.

#### A Tin Can Cut-Out

An easily built and effective motor cutout can be constructed from an old in can and other discarded parts, as shown in Fig. 3. Remove the exhaust pipe and

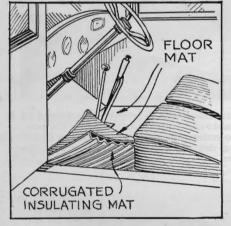


Fig. 2. Insulating corrugated cardboard fitted in place under floor mat keeps the car warm.

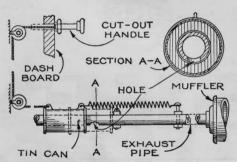


Fig. 3. How to make an effective motor cut-out, using an old tin can and other discarded parts.

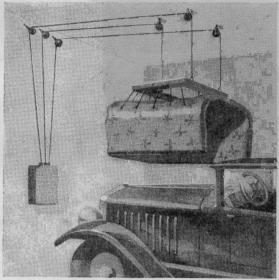


Fig. 1. When the car is put to bed, this thick hood quilt, lowered from the ceiling as shown, keeps the engine warm.

Each month POPULAR SCIENCE MONTHLY awards a prize of \$10, in addition to regular space rates, for the best idea sent in for motorists. This month's prize goes to A. E. McCall, Seven Springs, N. C., for his suggestion for a tin can cut-out (shown in Figure 3) for a motor.

cut a large hole in it. Cut holes in the ends of the tin can so that it will slip over the pipe. Fit one bolt as a stop and another for the spring that pulls the can back over the hole when the valve stem on the end of the cord is allowed to slide into the hole in the dash. The hole in the exhaust pipe can be cut most easily by sawing a V-shaped notch in the pipe with a hack saw. Notch area should equal pipe cross section.

#### A Carburetor Control

Considerable gas can be saved by keeping the carburetor set to the thinnest mixture that will give steady running. The hand control shown in Fig. 4 makes this possible. It is made from a discarded speedometer shaft, a brass collar, and a brass wheel from a toy construction set. The collar couples the lower end of the

to set the carburetor at the right mixture.

shaft to the needle valve and the brass wheel serves to turn the upper end.

# Getting Out of a Rut

In localities where dirt or gravel roads are common, deep ruts with perpendicular sides will form during the freeze-and-thaw period of late winter. When one motorist meets another, both traveling in the same set of ruts, a pair of wedge shaped blocks, shown in Fig. 5, will facilitate climbing out to make passing possible. Size and angle depend on local conditions. Thin boards nailed together can be used.

## Automatic Garage Light

A stop-light switch fastened to a beam and connected into the light circuit as shown in Fig. 6 will provide an automatic light for the garage. When car drives into the garage its front wheels switch on the

light at the ceiling. A cord to the lever of the stop-light switch should be fastened to a board hinged to the floor in such a way that the front tires rolling on to it will pull the switch to the on position. A push button switch is included in the circuit, of course, to provide a ready means of turning off the light. If the weight of the board will not allow the spring to pull the switch up to the off position, use a suitable counterweight.

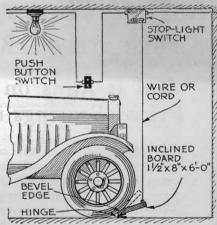


Fig. 6. When the car rolls into the garage, the front wheels turn on the electric ceiling light.

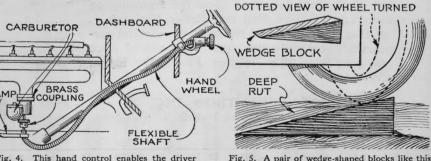


Fig. 5. A pair of wedge-shaped blocks like this helps the automobile climb out of a deep rut.