

# Ideas Valuable to Auto Mechanics

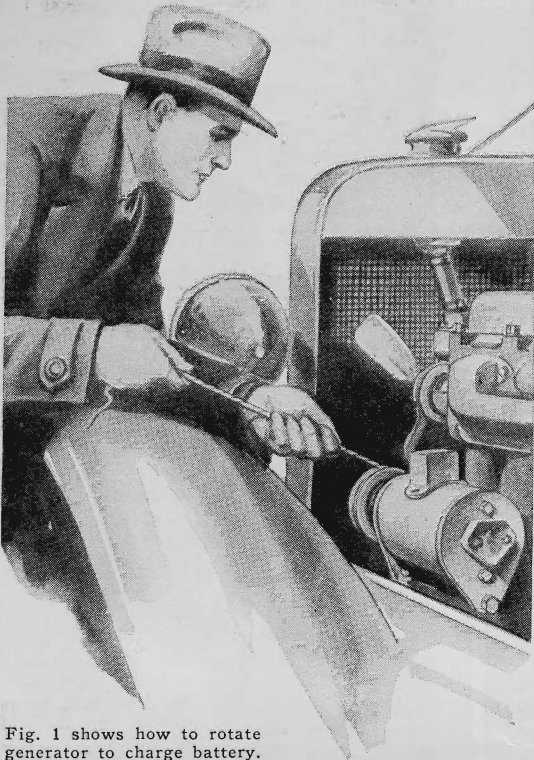


Fig. 1 shows how to rotate generator to charge battery.

## Novel way of charging wholly dead battery—How wedge closes a rim

POPULAR SCIENCE MONTHLY awards each month a prize of \$10, in addition to regular space rates, for the best idea sent in for motorists. This month's prize goes to Joe Hodge, Richfield, N. C. (Figure 1). Contributions are requested from auto mechanics.

### TIRE STRETCHER

AFTER you have labored in vain trying to hold open a tire casing while you search for the break in the fabric that has chafed through the tube, make yourself a stretcher as shown in Fig. 5. Be sure to cut the notches in the board so deep that it will not slip. While one stretcher will serve in most cases, two will often prove more convenient.

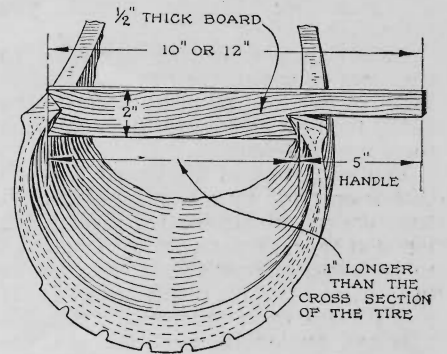


Fig. 5. Spreading a tire casing in search of a break is a small job if you use this device.

WHEN the battery has accidentally become discharged, the hand crank will fail to start the motor. If this happens to you when you can't borrow a battery or get a tow there still is one last resort. Take off the fan belt and rotate the generator many times by the aid of a cord wound around the pulley. This will put enough juice in the battery to start the motor with the hand crank.

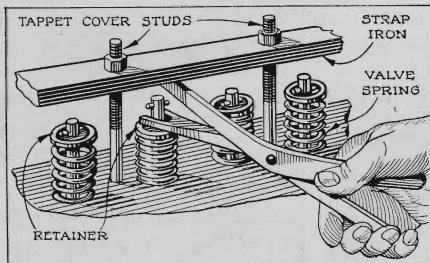


Fig. 2. A steel bar fitted to the studs affords purchase so overhead valves can be removed.

### VALVE AID

THE chief difficulty in removing valves of the overhead type by the aid of a conventional lifter is the absence of anything against which to rest the tool. A way out of this trouble is shown in Fig. 2. After the rocker arm shaft has been removed, fit a steel or hardwood bar on the studs as illustrated to provide the necessary purchase.

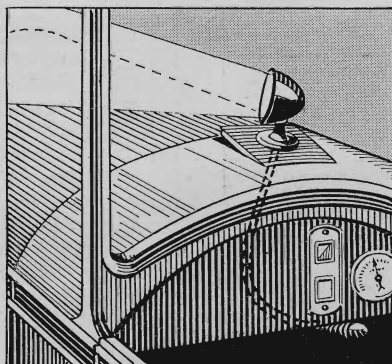


Fig. 3. Spotlight mounted on cowl ventilator can be moved with a hand lever.

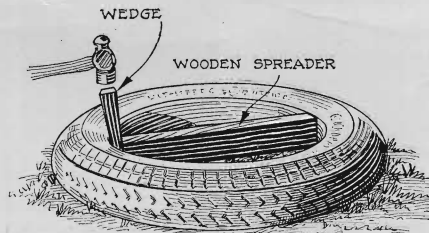


Fig. 4. A piece of board and a wedge are handy to force a rim into locked position.

### WEDGE CLOSES RIM

FIGURE 4 shows how to use a piece of board, a wood wedge, and a hammer to force a rim into the locked position. Both the board and the wedge should be made of hardwood. The board should be not less than an inch and a quarter thick and wide enough so that its lower edge will be supported by the ground.

This is similar to the common way, using a jack supported by a board to give the necessary force.

### SPOTLIGHT

ON CARS fitted with a cowl ventilator, it is often possible to mount a spotlight as indicated by the drawing in Fig. 3. Opening the ventilator will point the spotlight up as much as desired and a hand lever can be used to turn it to right or left. Of course, a ball-and-socket joint could be used on a plain cowl.

### RUBBER MAP POCKET

MAPS, route cards, and so on may be carried conveniently in a special pocket under either of the front seats. Take a section of inner tube and split it lengthwise as indicated in Fig. 6. When the pocket is in place under the seat it will hold papers so that they can not jar out. After the pocket is in place, put in the center tack. Then stretch the back edge both ways from the center and tack it securely, first on one side and then on the other to maintain even tension.

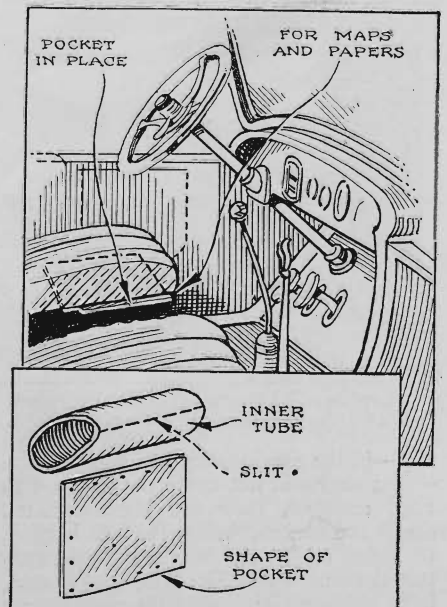


Fig. 6. A piece of old inner tube, cut to size and fitted in place, serves as pocket for maps.