

# for Auto Workers

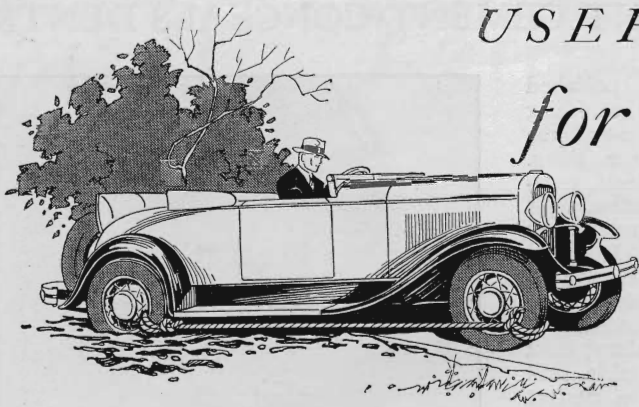


Fig. 1. By tying a rope from the rear wheel to the front one, a kind of four-wheel traction is possible to help a car out of mud when rear wheels sink in

**A** MUDDY road would have to be unusually bad to stall a motor car if it had four-wheel drive. You can take advantage of this fact the next time you get stuck. Figure 1 shows a way to obtain traction with all four wheels. Tie a rope to the front side of the rear wheel in line with the bottom of the running board. Fasten the other end of the rope to the front wheel at approximately the same point. Then if you let in the clutch with care, the front wheel will be pulled around for about a third of a revolution and the car will be pulled forward that far. If both of the rear wheels are mired, both front wheels can be roped in this manner. Of course, care must be used with this method, as the automobile can only be driven a couple of feet with one tying of the ropes.

## WIN A \$10 PRIZE

Each month we award \$10 for the best idea sent in for motorists. This month's prize goes to B. Elkin, Woodside, Long Island, N. Y. (Fig. 3). Contributions are requested from auto mechanics, and if printed will be paid for at usual rates.

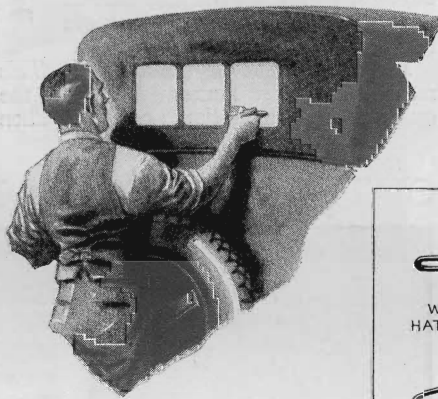


Fig. 3. Collodion, acetone, and alcohol mixed will clean celluloid

## To Clean Celluloid

**I**N A year or two the celluloid windows in the curtain of an open car become fogged and scratched so that it is difficult to see through them. The usual remedy is to have new celluloid lights fitted, but it is often possible to restore a clear surface by treating with a preparation of one ounce of flexible collodion, one ounce of acetone, and two ounces of alcohol.

## A Wire Brush

**C**LEANING contacts in lamp sockets is difficult. A tool that does the work easily is shown in Fig. 4. To make it, take several pieces of stiff picture wire and lay them side by side in a bundle. Tape tightly, leaving about 3/16 of an inch of wire exposed at one end.

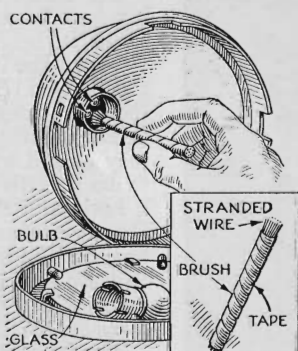


Fig. 4. A bundle of picture wire, taped together, forms a brush to clean lamp contacts

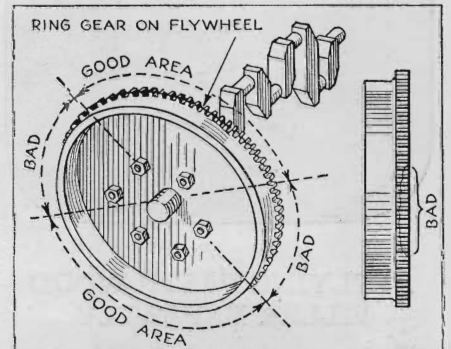


Fig. 5. This diagram shows how teeth wear on flywheel. Changing its position as shown brings unworn portion of its teeth into use

## To Save a Flywheel

**O**N A four-cylinder motor, the effect of the compression is such that the motor almost invariably stops with the pistons about mid-point in their strokes. The result is that the teeth on two restricted portions of the flywheel gear take all the wear of the engaging starting pinion. In time, the teeth at these points become chewed away and the starter jams. The diagram in Fig. 5 shows how this works out. Note that plenty of good teeth are left on the flywheel. It is possible to remove the flywheel and bolt it in a new position sixty or 120 degrees from its previous location. This gives good teeth with which the starter pinion can engage, the worn teeth coming into action only after the pinion is all the way in. This operation will give you what practically amounts to a new flywheel.

## Simple Hatrack

**M**ANY motorists find it more comfortable to drive in hot weather with their hats removed. This brings up the problem of what to do with the hat when the car holds a full complement of passengers. Figure 6 shows a simple hatrack that can be made out of the ordinary wire type of coat hanger. The straight cross wire is curved inward and the ends brought out to form a half circle. With the hoop bent as shown, a couple of staples will hold the hatrack securely to a rib in the top of the car. If it is more convenient, fasten the holder to the side of the car with the hoop pointing upward.

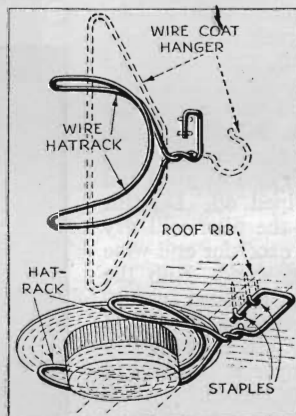


Fig. 6. Bend arms of coat hanger inward; staple to rib in top. This is a good hatrack

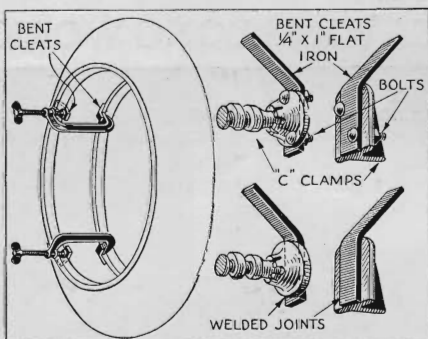


Fig. 2. Tire spreaders that are handy for heavy work are made of strap iron welded to C clamps

## Tire Spreaders

**F**IGURE 2 shows a way to make tire spreaders that are helpful if you have much work to do on heavy tires. Obtain a couple of C clamps with an opening equal to the distance you want to spread the tire. Bend cleats out of strap iron as indicated and weld to the jaws of the C clamps or attach them by drilling 11/64-inch holes and tapping with 3/16 USS tap. Bolt the cleats in place with 3/16-inch stove bolts. The bent cleat attached to the fixed jaw of the clamp will always remain in the right position. Spreaders of this type are particularly useful on truck tires.