

# Kinks for the Motorist

Simple Ways to Make a Trouble Lamp, Wheel Puller, or a Baggage Rack—Ten Dollars for the Best Idea

O. E. Abernethy, of Hickory, N. C., wins the \$10 prize this month for his suggestion of a way to discourage the auto thief (Fig. 4). Each month POPULAR SCIENCE MONTHLY awards \$10, in addition to regular space rates, to the reader sending in the best idea for motorists. Other published contributions will be paid for at our usual rates.

## Headlight Utility

THE socket in many types of auto headlights is a double-ended affair with the bulb plugged into the end inside the headlight and the supply wire from the battery plugged into the other. Such an arrangement permits you to obtain plenty of light for working on either side of the motor with very little trouble. Just remove the headlight rim, take out the bulb, and detach the supply wire. Now plug the bulb where the wire was and put the wire in the end of the socket inside the headlight. You may find it necessary to add a few inches to the length of the wire to make it reach around to the front of the headlight.

## Old Tube Holds Luggage

THE rubber of which inner tubes are made is of the highest grade and, consequently, it is still springy and full of life long after it has been made useless as an inner tube by many punctures and blowouts.

Of course, it is easy enough to tie luggage on the back of your car with a piece of rope, but the arrangement shown in Figure 2 is much more handy and convenient, and in addition the elasticity of the rubber will keep the luggage tight so that it will not rattle after a few hard jounces. By making the loop of cord and inner tube somewhat smaller than the smallest package you are likely to carry, you will find that any bundle that will go on the luggage carrier can be held in place.

## A Wheel Puller

SOME iron bars, a couple of heavy bolts and a piece of copper can be made up into a puller that will serve to remove the rear wheels of any car if the wheels are fitted on the end

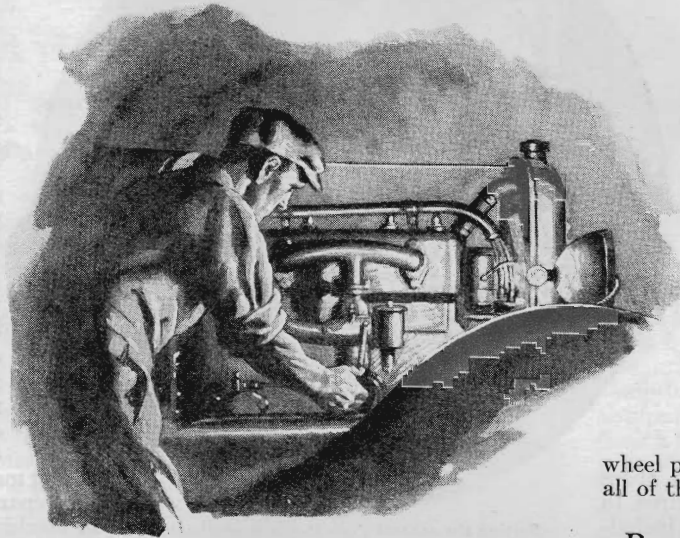


Fig. 1. Transposing headlight bulb and feed wire gives light to work on the motor

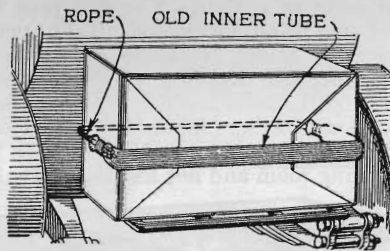


Fig. 2. Elasticity of an old inner tube holds packages tight on the luggage rack

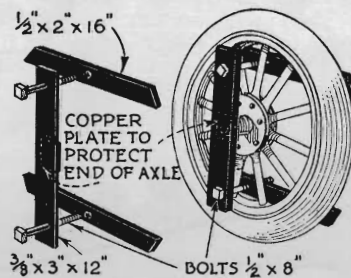


Fig. 3. Wheel puller made of iron bars, a piece of copper plate and two heavy bolts

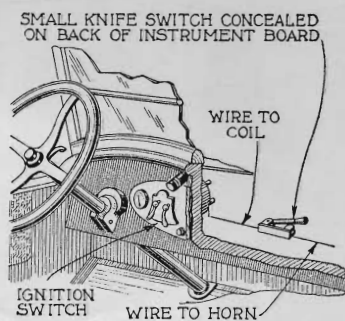


Fig. 4. Turning on ignition switch starts the horn sounding continuously, foiling the automobile thief

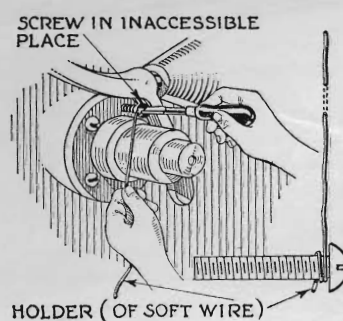


Fig. 5. Removing inaccessible screws is easy with a small piece of wire, as is replacing them afterward

of tapered axles. Figure 3 shows the construction and the dimensions of the iron bars. The copper plate should be riveted to the bar as shown to prevent injury to the end of the axle. After the bolts are set up tightly, the outside bar should be struck with a heavy hammer on the center over the end of the axle. This arrangement is particularly useful to the service man who may be called on to remove the wheels of cars of old style with odd sized hub cap threads. This

wheel puller transmits the strain through all of the spokes to the hub of the wheel.

## Protection Against Thieves

NOTHING is more disconcerting to an auto thief than a noise which will call attention to his activities, and so the simple wiring scheme shown in Figure 4 should prove quite effective while the car is left in a well populated district. All you need is a single pole, single throw knife switch and a few feet of wire. The knife switch should be concealed at any convenient point behind the instrument board. Connect one terminal of the switch to the binding post on the ignition switch, or to the wire that runs from the ignition switch to the spark coil, at any convenient point. Connect the remaining terminal of the switch to the binding post on the horn that is wired to the horn button, or to the wire itself if that is easier. When the switch is closed, turning on the ignition will cause the horn to sound.

## Wire Loop Holds Screw

IT ALWAYS is easy enough to remove a screw from an inaccessible place provided you can get at it with the screw driver, but it is not so easy to replace the screw where it belongs after the job is finished. Often there is not sufficient space to hold the screw with the fingers or a pair of pliers. In such cases the job can be accomplished very easily by using a piece of fine wire as shown in Fig. 5. After the screw is started in the thread, the wire can be pulled off. A single strand from a piece of drop cord or ignition cable will serve for small screws. A light wire is best, as it can be pulled off easier after the screw is started in the hole.