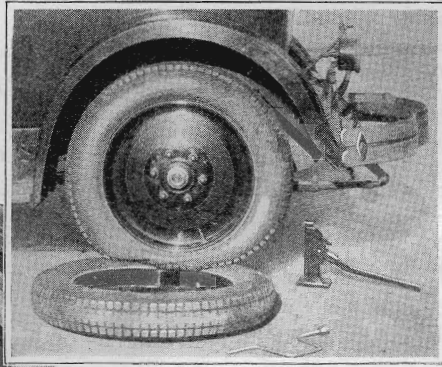
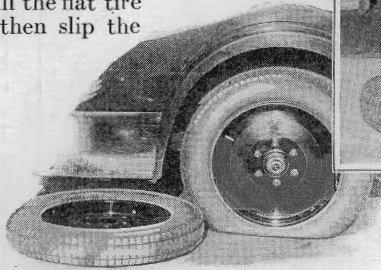


Useful Ideas for Your Car

Air Moistener, Battery Handle, and Other Ingenious Kinks

UNLESS you are equipped with a special jack designed low enough so that it can be placed under the axle when a balloon tire goes flat, you may find it extremely difficult to change tires. If you get stuck this way, your spare tire may solve the problem. Simply place it in front of the flat tire as shown in Fig. 1, drive the car ahead till the flat tire rolls on to the spare, and then slip the jack under the rear axle. Working the jack lever takes the weight off the spare tire so that it can be exchanged for the flat one.

Fig. 1. Using the spare tire to help get the car on the jack if you have difficulty getting the jack under the rear axle



Turnbuckle Compresses Rim

IF YOUR car is fitted with rims on which the lugs are part of the rim, a good sized turnbuckle can be used to compress the rim and allow you to take off a tire even if it is badly rusted. While it is better to use a large turnbuckle, a small one will do if you piece out from the turnbuckle eyes to the lugs by means of hooks of the proper length. Fig. 5 shows how the turnbuckle is used.

Saving Your Springs

WHILE the best possible insurance against spring breakage is a set of properly adjusted recoil snubbers, you will find that fabric belts clamped around the axle and the frame as shown in Fig. 2 are worth while. The belts will not interfere with the free action of the spring when a bump is encountered, but when the car starts to bounce too high, they will prevent bending the springs the wrong way so far that they break. If your car has a tendency to excessive up and down wobble when you hit a succession of bumps, special clips, like spring clips, fitted with leather friction pads, can be used to increase the friction between the leaves and in this manner deaden the spring action.

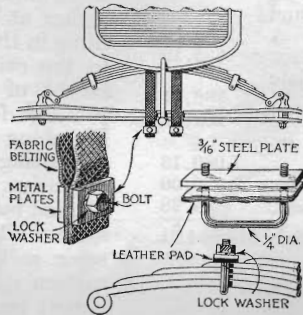


Fig. 2. Fabric straps as shown above will prevent excessive rebound and keep your springs from breaking. Special C-clamps stop the bouncing

Old Rim As Hose Rack

THE short piece of hose that you keep in the garage to wash the car can be kept in good condition, handy and yet out of the way, by bolting an old rim to the wall near the water tap as shown in Fig. 3. Almost any old rim will provide ample space for the short piece of hose that is ordinarily used in the home garage.

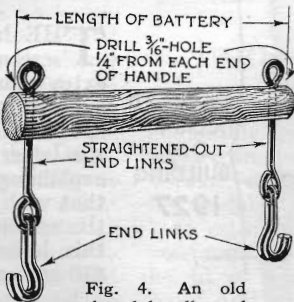


Fig. 4. An old shovel handle and some end links from an old skid chain can be made into the storage battery handle shown above

Simple Battery Handle

FIGURE 4 shows you how to make a simple handle that will fit almost any storage battery. It is made from a stout piece of wood, such as an old shovel handle or fork handle, and the end links are from an old cross chain. After the holes are drilled at each end, two links are straightened out and passed through the holes.

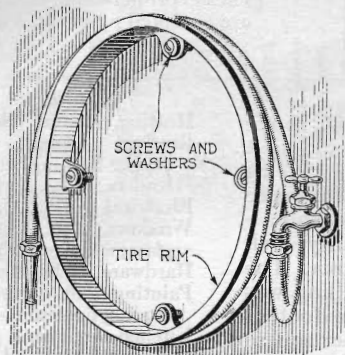
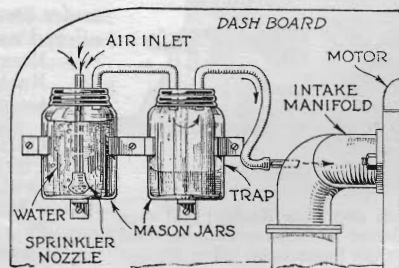


Fig. 3. The hose you use for washing the car can be kept out of the way and where it is handy, with a reel made of an old automobile rim as shown above

To Close Piston Rings

IF YOU find it necessary to fit new, stiff rings and you have no ring compressor, a string arranged as shown in Fig. 6 will permit you to do the job without trouble. Tie the end of the string to any convenient bolt, pass it around the ring and pull on the handle.

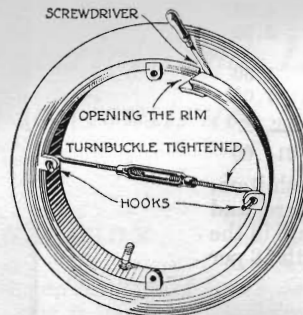
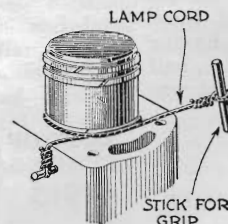


Fig. 5. A turnbuckle used as shown here will enable you to remove a tire easily, even though it is badly rusted on to the rim

Fig. 6. (Right) An emergency way of closing up rings to get the pistons into the cylinders



Air Moistener

ONE of the objections to the ordinary way of building a moistener for the air that goes into the manifold of your motor is that there is a chance, when the car goes over a bump, of the water's splashing up and being drawn into the manifold in the liquid state. By building your air moistener in two mason jars as shown in Fig. 7, the second jar acts as a water trap. In operation, the suction of the manifold causes a constant stream of air to flow from the nozzle in the first jar and come up through the water in the form of fine bubbles. The amount of water vapor absorbed by the air is in proportion to the size of the bubbles; the smaller the bubbles, the more nearly the air drawn through the jar approaches the saturated state.

Fig. 7. Ingenious arrangement of two mason jars to serve as an air moistener. The second jar prevents any of the water from being drawn into the cylinders

M. L. BURGHAM, of Parnassus, Pa., wins the \$10 prize this month for his suggestion of an air moistener (Fig. 7). 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 usual rates.