

Simple Jobs Any Motorist Can Tackle

Here Are Handy Kinks

CONSIDERABLE pressure often is required to get the last few inches of bead over the edge of a clincher rim, especially if the tire is new and stiff. The simple arrangement of boards and a piece of rope shown in Fig. 1 will enable you to apply pressure enough to mount the stiffest tire with ease.

If you want to make a permanent job, the shorter piece of board that rests against the tire can be attached to the upper board by means of an ordinary strap hinge.

IF AN electric drill is available, an easily made wire scratch brush will make carbon-removal jobs exceedingly simple and speedy.

Fine steel wire is rolled into a coil about 4 inches in diameter and one side of the coil is bound tightly with brass wire as shown in Fig. 2. Then the coil is cut at the side opposite the binding and the bound portion is forced into the end of a piece of brass tubing attached to a shank that will fit into the drill chuck.

A little soldering flux is dropped into the end, and when hot solder is poured in and allowed to cool, the wire is anchored firmly. If hard steel wire is used, the brush will last for a long time.

A SMALL amount of the initial valve-spring tension is lost through repeated facing of the valve and valve seat. There are two ways to remedy this trouble. One is to stretch the springs, but this method does not always work, because springs that are stretched tend to get back to their original length after they have been in use for a short time. Another way to increase the tension of the valve springs is to place washers at the upper or lower ends of the springs as shown in Fig. 3. The upper position is preferable because it does not add to the moving weight.

Be careful to see that the washers seat squarely, for if one side is cocked up, the resulting side pressure of the valve spring will cause excessive wear on the valve guide.

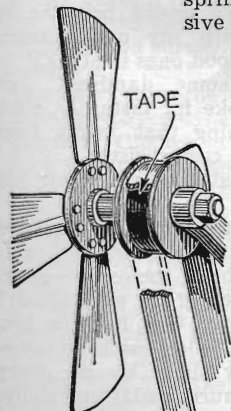


Fig. 6—Friction tape will help to cut down fan-belt troubles if properly applied

IN FIG. 4 is shown a good way to make a universal wheel puller that will work on any auto wheel regardless of the dimensions of the threaded portion. The shell of the wheel puller is made of 4-inch extra heavy iron pipe. A piece of 1/2-inch flat steel is fitted into one end and welded



Fig. 1—Giant "nutcracker" is great help in mounting a stiff new tire on the clincher type of rim

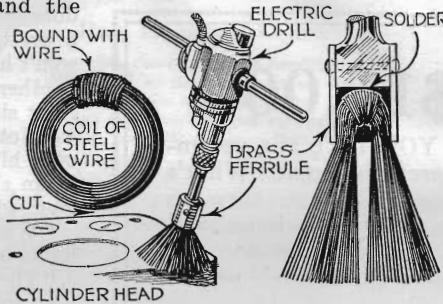


Fig. 2—This electrically driven scratch brush of simple construction makes carbon removal an easy task

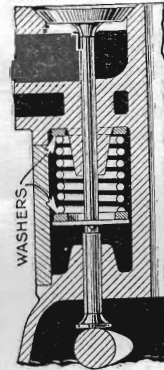


Fig. 3—Where washers are inserted to increase tension of valve springs

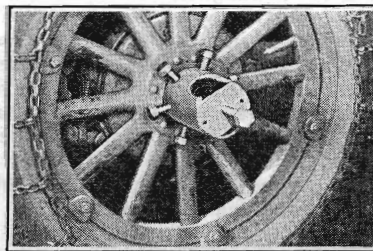


Fig. 4—This homemade universal wheel puller will remove the rear wheel from a car of any make

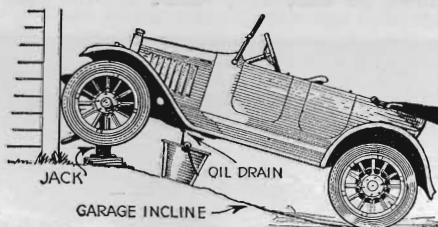


Fig. 5—Running the car up an incline and jacking the front wheels simplify the job of drawing oil from crankcase

into place. A 13/16-inch hole is drilled in the center of this plate and a 3/4-inch S. A. E. nut welded to the plate at the inside end of the hole.

At the other end of the pipe, six holes are drilled and threaded for 3/4-inch S. A. E. cap screws. The wheel puller is used by tightening the six screws against the wheel hub as shown in the illustration.

to Make Work Easier

When pressure is applied to the center of the axle by means of the long center screw, the threaded flange prevents the wheel puller from sliding off, and the tightest wheel can be removed.

THE man who takes pride in his automobile makes a practice of draining the crankcase about every 500 miles. This is a messy job at best, but it will make the work easier and the draining more thorough if the front of the car is run up the incline to the garage as shown in Fig. 5.

If the incline to the garage is not great enough, then it will be worth while to jack up the front of the car as indicated. This will make it much easier to get at the drain plug with a wrench, and tipping the motor will drain out the oil in the splash pockets under the connecting rods.

Another advantage is that the oil can be run directly into a regular bucket rather than into the shallow pan that often is necessary because of lack of clearance under the crankcase.

FLAT fan belts frequently give trouble through slipping or coming off the pulley. Both these troubles often can be eliminated by winding tape around the center of the pulley so that the center is larger in diameter than it is nearer the edges. The belt then will have

a tendency to run on the center of the pulley and the tape will cut down the slipping. Another advantage is that if the belt runs squarely on the center of the pulley, it will not wear away the rim or the flange.

IT IS easy to make a set of wooden jacks that will keep tires off the floor.

The jack illustrated in Fig. 7 is designed on the "knuckle joint" principle, using an ordinary strap hinge as a knuckle. A 4-by-4-inch block serves as a base, held to the lower member by spikes. To prevent the length of 3/4-inch pipe, used as a detachable handle, from hitting the hub cap when the jack is raised, a space block is attached to the front of the lower member.

The jack is shoved under the wheel, back of the hub cap, as shown in the illustration. Then the pipe handle is inserted in the hole and the top end of it pushed toward the car, and the wheel is raised to height desired.

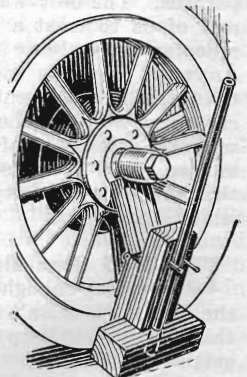


Fig. 7—Simple jack to keep tires off the ground when the car is stored