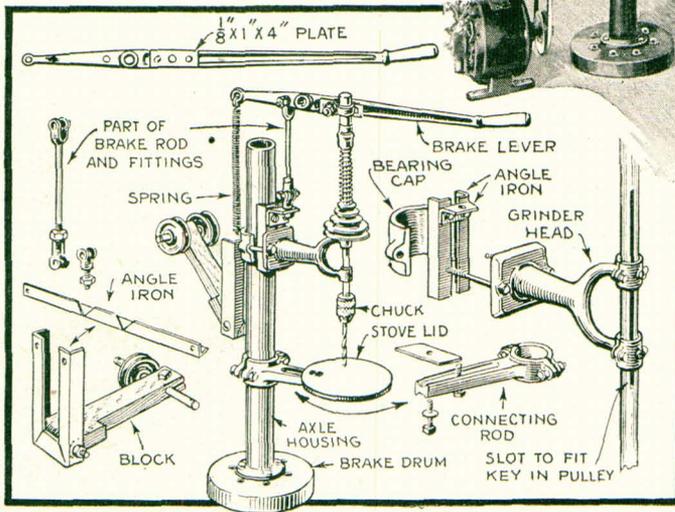
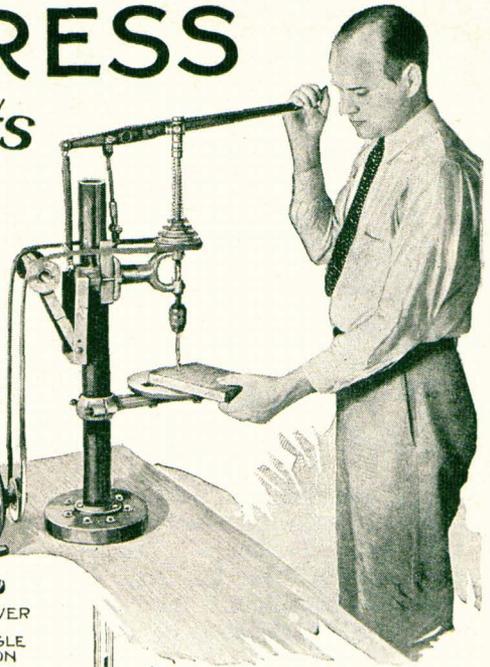


A DRILLPRESS

from Auto Parts

DRIVEN by means of a $\frac{1}{4}$ -hp. electric motor, this homemade drillpress, built mostly from old auto parts and a few items obtainable from your local dollar store, is sturdy, accurate and smooth in operation.

A cut-off portion from an axle housing is bolted to a brake drum, which, in turn, is bolted to the bench top. The spindle bearing is a small grinder head and is



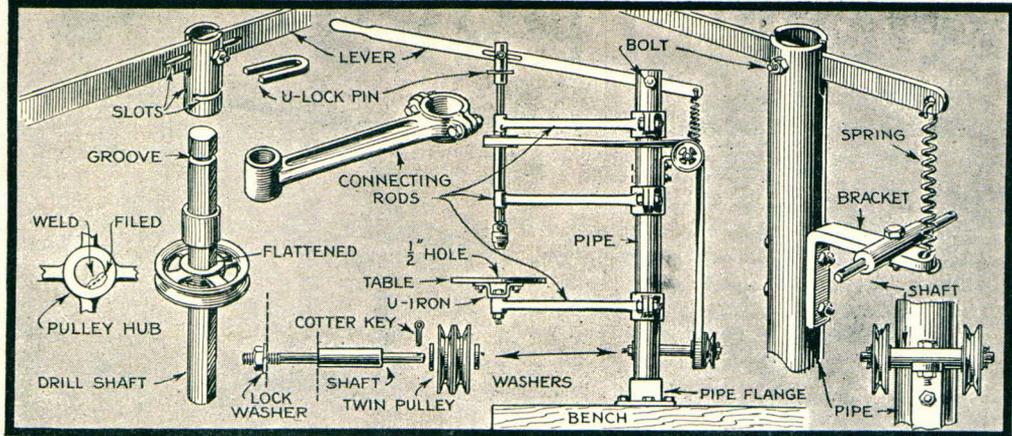
is pivoted in an angle-iron frame attached to the axle housing as shown. The lower end of the spindle is threaded for a suitable chuck, which must be purchased.

Another design for a drillpress made from auto parts is also given. In this case, a pipe flange is substituted for the brake

clamped to the housing by means of two lengths of angle iron and a connecting-rod bearing cap, as shown in the detail. A groove is milled in the spindle to take a key of a step pulley, permitting the spindle to be raised and lowered while the pulley is rotating. The drillpress table consists of a stove lid bolted to a connecting rod, which is clamped to the axle housing. An old brake lever provides a convenient handle, being attached to the upper end of the spindle and pivoted directly above the base of the grinder head, part of a brake rod and fittings being used for this purpose. A coil spring, attached to the end of the handle and to the assembly below, keeps the spindle up when not in use. Two small V-pulleys are slipped on a short piece of drill rod, which is held in a wooden block that

drum and a length of pipe for the axle housing. Two connecting rods are used instead of the grinder head, to provide a double head for the spindle. Also, the lever is pivoted in a slot at the top of the pipe frame. Other points of difference in the construction and assembly can be gathered from the illustrations.

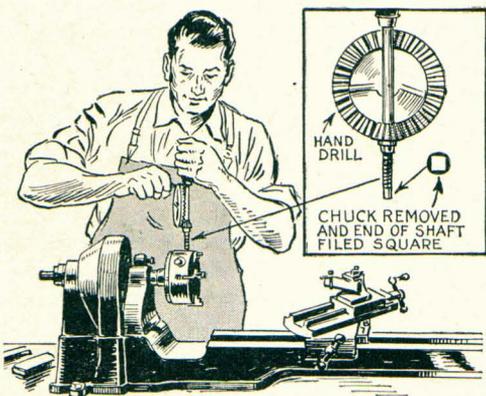
To operate such a drillpress you will need an electric motor of $\frac{1}{4}$ hp. If you have an old electric motor of the type used on a washing machine or can readily obtain one, the drillpress will involve very little expense. For a chuck it is best to get one of the better known and well-made brands, as a great deal of the accuracy of a drillpress depends on the chuck. One up to $\frac{1}{2}$ in. capacity is suggested. You can use a two-belt drive or belt the drillpress



direct to the motor. In either case it is advisable to use a three-step pulley on the motor to provide speed adjustment. Accessories such as the V-pulleys, belts and chuck can be obtained from almost any dealer of home workshop supplies.

Speed Chuck Wrench Saves Time For Lathe Operators

If you occasionally have a lathe job that requires resetting chucks frequently for

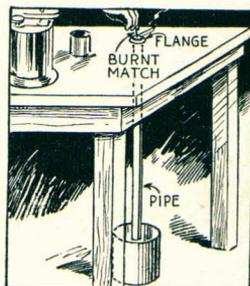


small work, this simple speed wrench will save considerable time. It is nothing more than an ordinary hand drill with the chuck removed and the end of the shaft squared to fit the chuck screws.

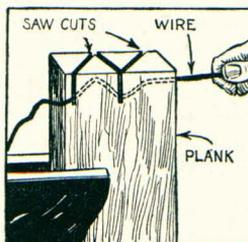
ⓁPunches and chisels for model makers can be had by grinding ice picks to shape.

Receptacle Built in Workbench Extinguishes Lighted Matches

To avoid fires being started by matches thrown about his shop, after lighting gas burners and torches, one tinsmith installed this receptacle. It consists of a length of pipe run through the bench top to end in a pail or can underneath the bench. A flange at the upper end of the pipe holds it in place. The lower end of the pipe must rest on the bottom of the pail. Matches dropped into the pipe are instantly extinguished, and when filled, the pipe is lifted to deposit the matches in the pail for disposal.



Small Wire Straightened Quickly In Slotted Plank



Wishing to save wire removed from hay bales for future use, a farmer straightened it by pulling it through slots cut in the end of a hardwood plank as shown.

The plank was clamped in a bench vise and the wire slipped into the slots from the top.