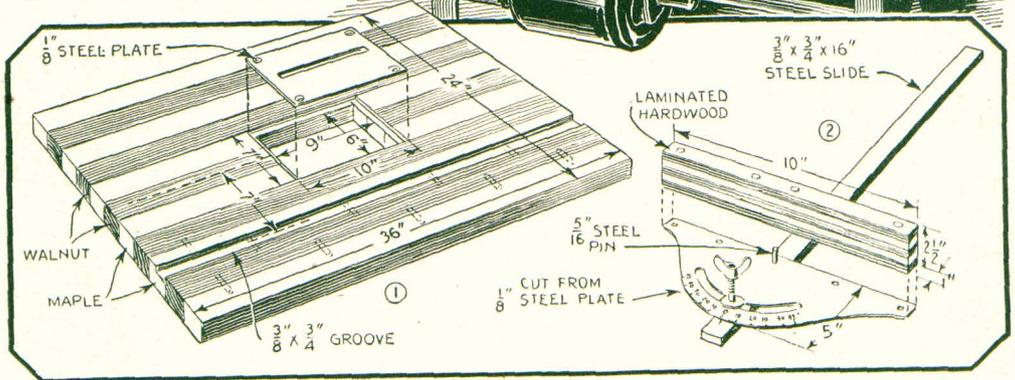


# Workshop SAW TABLE

*is large and sturdy*

**B**UILT with a sturdy angle-iron frame and a laminated hardwood top this motor-driven saw gives you ample capacity for crosscutting and ripping wide boards. The large table is stationary. A novel device for raising and lowering the saw makes it possible to cut to any desired depth within the limits of the saw blade.

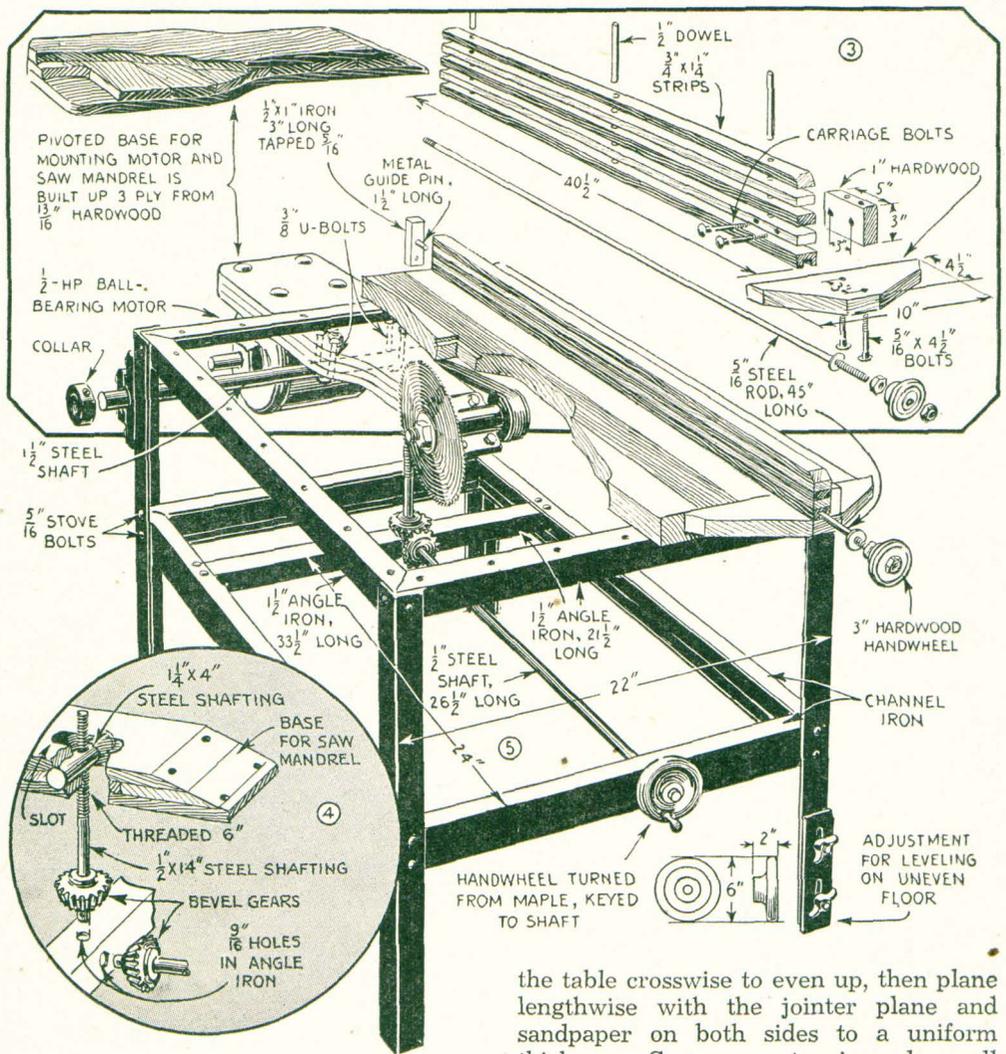
The four legs are cut from 1 $\frac{3}{4}$ -in. angle iron, the top rails from 1 $\frac{1}{2}$ -in. angle iron and the middle stretchers from channel iron, 4 in. wide. Fig. 6 gives you the location of the  $\frac{3}{16}$ -in. holes to be drilled in each leg. These holes are in the same position on both faces of the angle. The location of the holes through the ends of the rails and stretchers is laid out from those already drilled in the legs. With all holes drilled



you can set up the frame by joining the legs to the channel-iron stretchers with  $\frac{5}{16}$ -in. stove bolts, the nuts drawn down on lock washers. The top rails are mitered at the ends as in Fig. 5. With the frame set up, drill a line of small holes, spaced 8 in. apart, through the top of the upper angle-iron rails to take screws driven into the top. If the machine is to

be taken about to the job or operated on an uneven floor, saw one of the front legs about 1 in. short, cut two  $\frac{3}{16}$ -in. slots in a piece of  $\frac{1}{4}$  by  $\frac{3}{4}$ -in. flat iron and bolt it to the leg as in Fig. 5. This will give you an adjustment to take care of any unevenness in the floor.

The top thickness is given as 1 $\frac{1}{2}$  in. but this may be 1 $\frac{1}{8}$  in. to allow a greater range

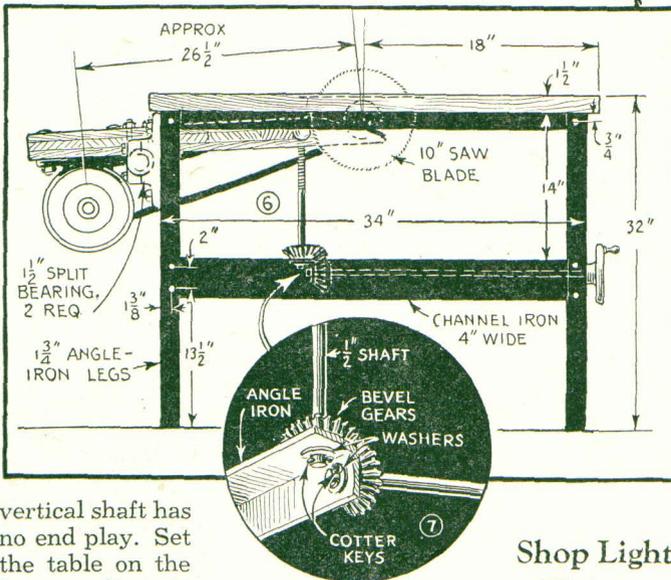
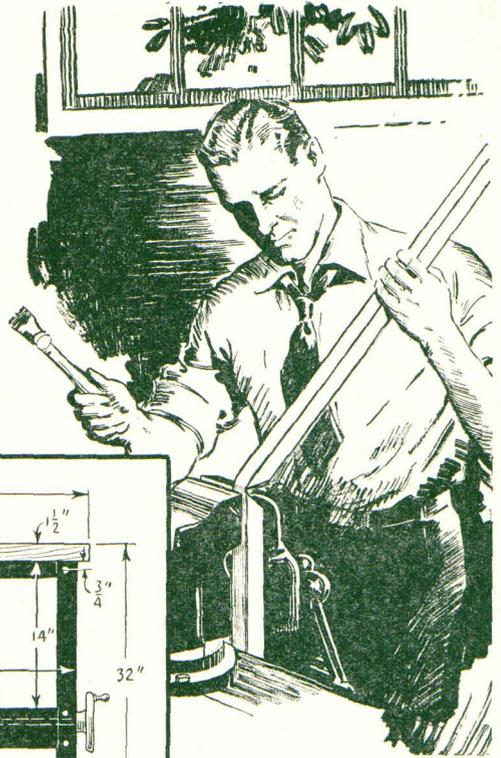


of adjustment on the dado and molding heads. To build up the top of 1 1/8-in. stock rip six 2 1/4 by 38-in. strips of hard maple and five strips of black walnut the same size. Run a 3/8 by 3/4-in. rabbet on the edge of one of the maple strips. Lay out and drill 3/8-in. holes for staggered 2-in. dowels as shown in Fig. 1. The table opening should be wide enough to take the length of the mandrel so that the saw will raise high enough to give the full cutting capacity of the blade. Cut the stock for the table top accordingly and assemble as in Fig. 1 with waterproof casein glue in all joints. Allow ample time to dry before you loosen the clamps. To finish, first plane

the table crosswise to even up, then plane lengthwise with the jointer plane and sandpaper on both sides to a uniform thickness. Square up to size, plane all edges at right angles and be sure that the sides and ends are parallel. Apply two coats of white shellac to both sides and finish with wax. A 1/8-in. rabbet is cut around the top edge of the opening. In this you fit two 1/8-in. steel plates, one slotted for the saw blade, the other with a wider slot for the dado and molding cutter. Fasten with short screws. The 3/4-in. groove for the crosscut guide may be located on either side of the saw, or one on each side.

Next you make up the base for the motor and saw mandrel. This is made 3-ply of 3/4-in. hardwood. The exact size of the base depends on the type of motor and saw

mandrel you use. The forward end of the base is beveled for the mandrel which is usually fastened with bolts or heavy screws. As you will see from Figs. 3 and 6 the base is pivoted on a 1½-in. steel shaft supported in two split bearings bolted to the back legs. The base is attached to the supporting shaft with ¾-in. U-bolts, or you can use two additional split bearings for this purpose. The motor is bolted in place with a ½-in. V-belt running over a 2-in. diameter V-pulley on the mandrel and a 5-in. V-pulley on the motor. These pulleys will give proper saw speed with the motor turning 1,750 r.p.m. This done, you are ready for the tilting device shown in Figs. 4, 6 and 7. It is important that the



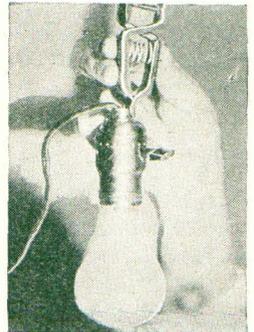
vertical shaft has no end play. Set the table on the frame, aline it with the saw blade, place strips of thin felt between the table and the frame, and fasten the table in place with screws.

Fig. 3 details the ripping fence and Fig. 2 the crosscut guide. Both sides of the fence should be finished true throughout the length. The wood is then sanded smooth, shellacked two coats and waxed. Two 1½-in. shaft collars are placed tight against the bearings on the shaft supporting the motor base. All bolts, including those on the split bearings, are then drawn tight. The motor and saw-mandrel mounting, as shown in the drawings, is correct for motors that run in anti-clockwise direction as you are facing the pulley. If your motor

runs in clockwise direction, it should be turned end for end so that the pulley and belt are on the opposite side, or the belt may be crossed.

## Shop Light Has Clamp-On Socket

When you are working around machinery that requires a light in many unusual positions, it will be a big help to have the lamp fitted with a fastener as shown. This is nothing more than a spring battery clip attached to an ordinary light socket by the bushing screw and then soldered to make it secure.



—Albert Mihalovich, Rathbun, Ia.