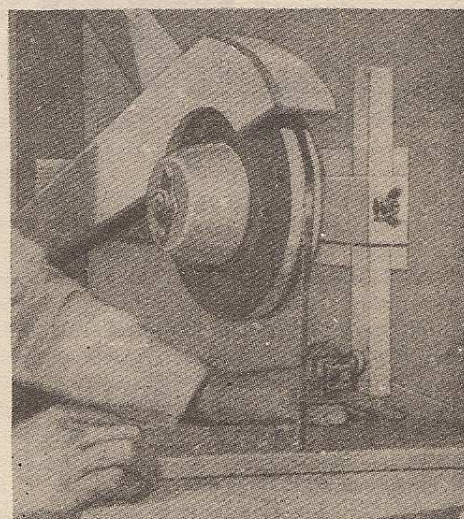
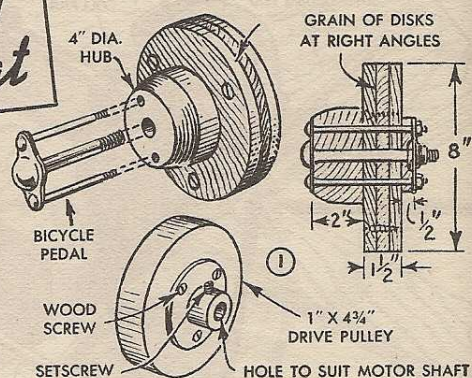
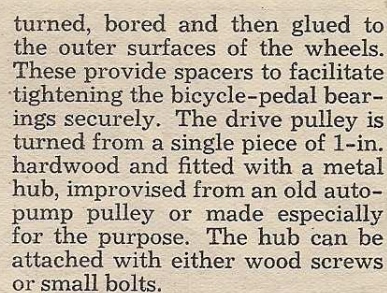


WITH its deep throat and sturdy wooden frame, this three-wheel bandsaw handles 4-in. stock with ease and is capable of cutting to the center of a 44-in. disk. Excluding the motor and 80-in. blade, there are no new metal fittings needed, as the blade guide is improvised from a screw-type pulley, and wheel bearings are provided by old bicycle pedals.

After cutting the main frame pieces according to dimensions given in Fig. 2, and assembling them with glue and screws, mark center lines for the two guide wheels. Then, fit drilled-and-tapped plates of steel flush in the upper arm and the center frame member to take bicycle-pedal bearings, which are used for mounting the wheels. As shown in Fig. 1, the guide wheels consist of three $\frac{1}{2}$ -in.-wood disks, glued and screwed together with the grain running at right angles to prevent warping. They are trued on a lathe, crowned slightly, and sanded so that vibration is reduced to a minimum, after which 4-in.-dia. hubs are

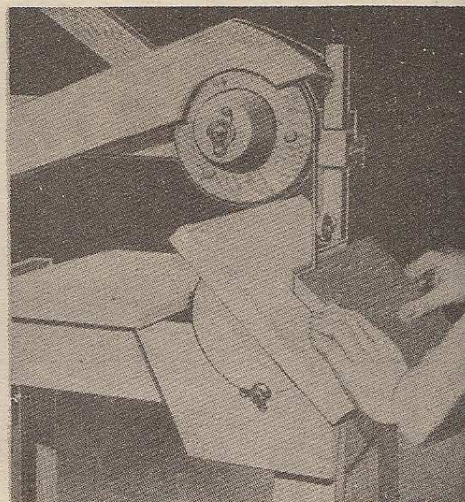
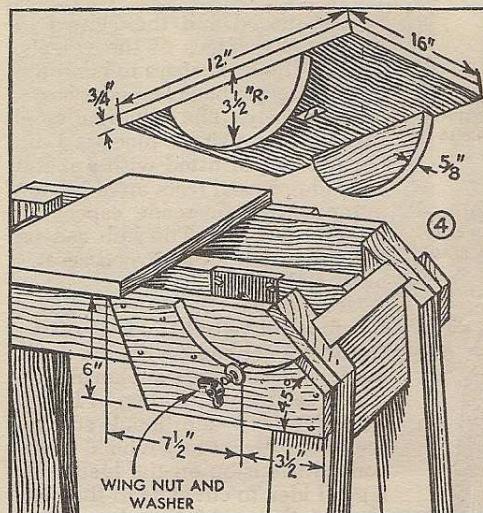




Next comes the motor base, which is hinged at the rear of the frame and aligned with the front guide wheels before anchoring the motor securely as shown in Fig. 3. To allow for additional adjustment of the motor, which keeps constant tension on the blade, it's a good idea to cut slots in the base so that the motor can be shifted sideways quickly, if necessary, to get perfect blade trackage.

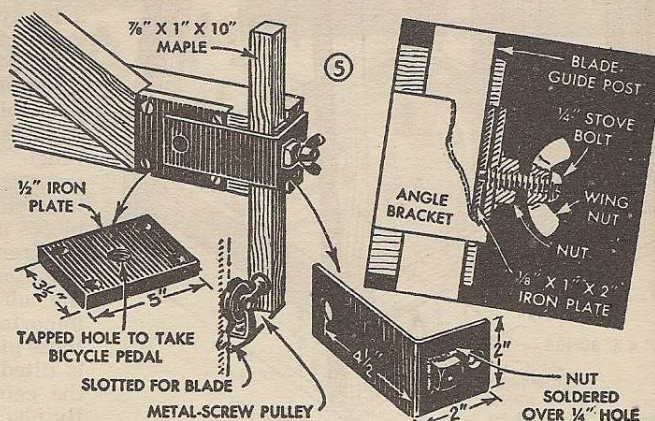
Fig. 4 shows the table-trunnion assembly, which permits tilting the table to 45 deg. and adjusting it for any angle cuts within this range. Note that the table supports are made by sawing a 5½-in. wooden disk in half and that filler pieces are needed on each side of the frame, the top edges of these being cut to the same contour as the half-round table supports. The important thing here is to position these pieces so that when the table is tilted, the blade will remain in the center of the table opening. By placing a blade on the wheels,





you can determine the correct location easily. Wing nuts and large washers on the trunnion bolts make the table assembly easy to loosen or tighten in any position. If desired, the trunnion also can be indexed for rapid setting.

For the adjustable blade-guide post, Fig. 5, a piece of good maple and a screw-type pulley will be required. After screwing the pulley in place near the lower end of the guide



post with a slotted metal plate to take the blade, the vertical adjusting clamp is attached. This consists mainly of an angle bracket made by bending a piece of flat iron and fitting it with a setscrew as indicated. The bracket is drilled to slip over the wheel shaft, and also is anchored at the end of the frame arm with a long, flathead wood screw. Instead of tapping the bracket for an improvised adjusting screw, a nut is soldered over the hole for it as shown.

The lower edge of the upper arm is approximately 15 1/2 in. from the top of the 4 by 4-in. post which is 62 in. in length. The upper detail of Fig. 4 shows the slot through which the blade is inserted or removed. To do this the trunnion must be taken off first and then screwed back on when the blade is in place. The slot should run with the grain of the wood, but although this weakens the piece, the trunnion will reinforce it.

The original model used a motor on

which the shaft projected on both sides. On motors having shafts on only one side, the method of mounting the motor as shown may cause the saw blade to run in the wrong direction. In such cases either the motor rotation will have to be reversed by changing the wiring connections inside the motor, which can be done by a competent electrical service man, or the hinged platform on which the motor is held can be attached to the rear of the 4 by 4-in. post, permitting the motor to be turned around end for end. This arrangement requires a longer blade, and it may be helpful to cut slots in the hinged motor support board to permit a greater range of adjustment.

Installation of a suitable wheel-and-blade guard completes the saw, and it's advisable not to start the machine until this guard is in place as it offers protection against accidents in case a blade is broken.