

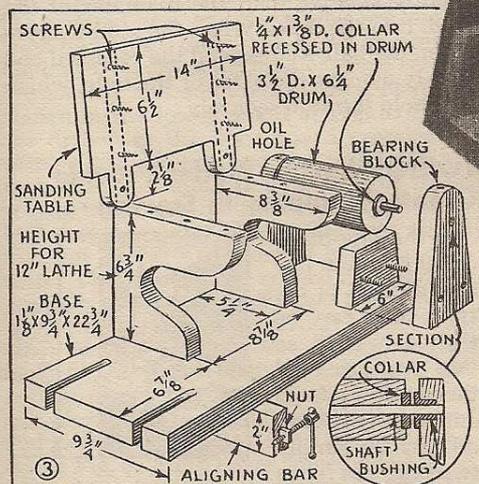
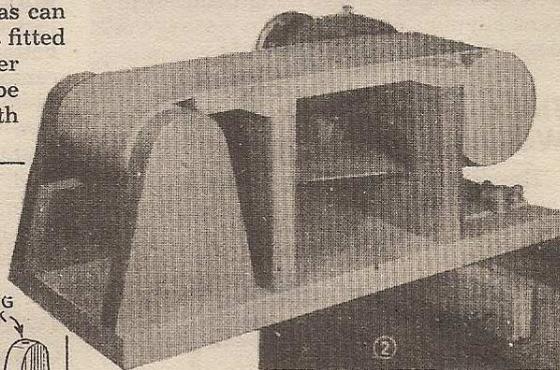
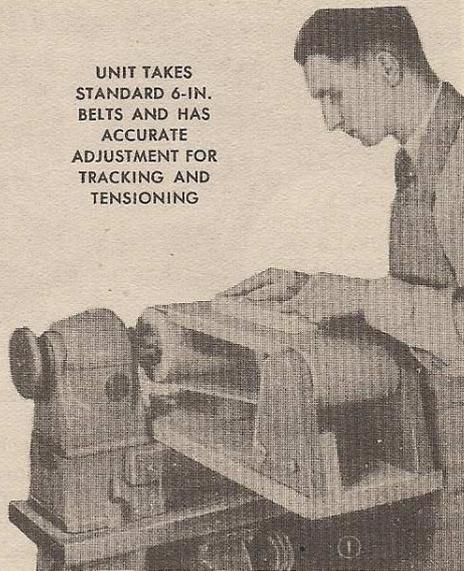
BELT SANDER

fits your lathe

DESIGNED to take a standard 6-in. abrasive belt, this lathe sander is an inexpensive unit capable of handling any type of work ordinarily run on a small belt sander. Accurate adjustment for tensioning and tracking is furnished by means of an alignment bar fastened to the underside of the base, which tilts the sander laterally to align the idler with the driving drum, and, at the same time tightens the belt.

Construction should be started by making the two drums. The larger of these—the driving drum—is made from three pieces of 1 $\frac{3}{4}$ -in. stock, glued and screw-fastened together to permit turning as can be seen in Figs. 2 and 4. The drum is fitted on a standard 3-in. faceplate. The idler can be built up similarly or can be turned from a single solid block. Both

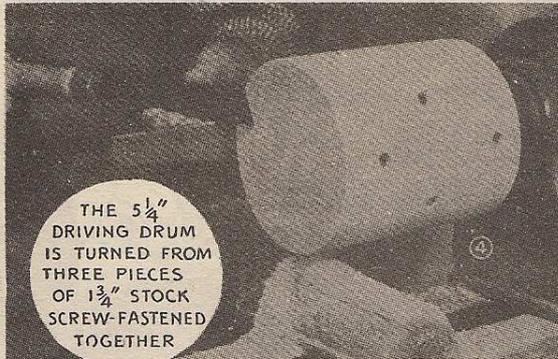
UNIT TAKES
STANDARD 6-IN.
BELTS AND HAS
ACCURATE
ADJUSTMENT FOR
TRACKING AND
TENSIONING



drums are 6 $\frac{1}{4}$ in. long. Wood stock for the other parts is 1 $\frac{1}{8}$ in. thick with exception of the sanding-table which is of $\frac{3}{4}$ -in. stock. Because of the short cross grain on the sanding-table supports, Fig. 3, it is advisable to make these of plywood.

To fit the sanding belt in place on the completed unit, the removable bearing

block at one end of the idler is taken off by loosening the wing nuts which hold it in place, Fig. 1. The belt is then slipped over the drums, after which the bearing block is replaced and the nuts tightened. The unit is fitted to the lathe by means of two studs which engage in the slot in the lathe bed. Tension is provided by means of the two screws fitting through the aligning bar. By turning one screw more than the other, proper alignment of the belt for straight tracking is assured. The adjusting screws can be obtained from small C-clamps. The screws are pointed at the free end with a file and engage in shallow holes drilled in the side of the lathe bed. Adjustments are made with the base loosely clamped to the bed, the base bolts being tightened after



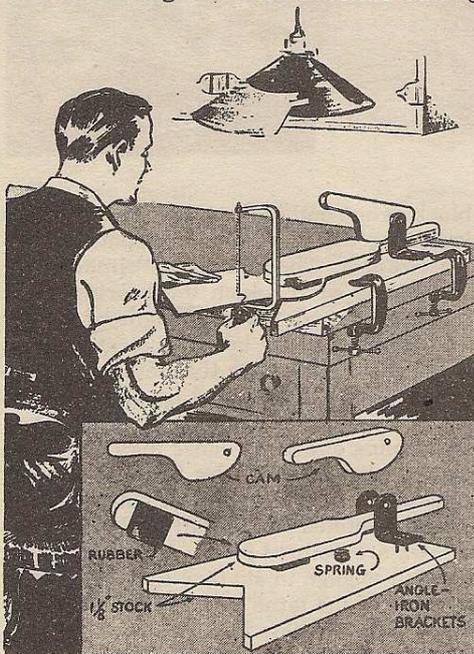
with a hand scrollsaw or coping saw. It consists of a base, a sliding arm and a cam, all made from scrap hardwood stock. Exact sizes are of no importance. You can make it up to suit your work. The arm is faced with a square piece of rubber cut from a stair tread to prevent marring the stock, and the small end slides between a couple of angle-iron brackets to permit adjustment. Also, the cam is pivoted between the brackets. A coil spring fitting tightly in a hole drilled partly through the arm from the underside raises the arm when the cam is released.

tensioning and tracking have been done.

For certain types of work a fence is handy. This is easily cut from scrap stock and attached to the solid bearing support of the idler with screws. It is not shown in the details as most users will want to adapt it to their own special needs. Use a stick belt dressing on the driving drum to prevent slipping of the belt on heavy work. An occasional application will be ample.

This Quick-Acting Clamp Holds Work While Scrollsawing

Here's a clamp that disposes of the problem of holding work for intricate cutting



drilled partly through the arm from the underside raises the arm when the cam is released.

Ball Keeps Stud From Loosening

To keep studs and machine screws from working loose on machinery that is subjected to considerable vibration, recess the bottom end of the stud or screw with a center drill. Then, with a hacksaw, cut two $\frac{3}{8}$ -in. slots crosswise of the same end. Before driving the stud, drop a steel ball, slightly smaller than the diameter of the stud, into the hole. When the stud is driven in, the ball will expand the recessed end tightly against the sides of the hole, which will hold the stud securely.

Twisted Jigsaw Blades Provide Greater Compass in Sawing

If the saw-blade chucks on your jigsaw are not of the type that can be turned around so that you can feed the work in from one side, you can do this by simply twisting the ends of the blades. Given a half twist at each end the blade will then face sideways when reinserted in the saw chucks. If desired, the blade can be strengthened with a rest of the usual type except that it is notched from the side to support the back of the blade. Be careful to leave enough of the blade straight to allow free movement through the entire length of the stroke.

