



for centering the work and also adjusting bearing pressures to just the right degree. Once the work is in position, jam nuts on the screws are tightened to hold the adjustment. It has been found that an adapter plate, or subbase, of hardwood serves as well as, or better than, one of metal. This eliminates the necessity of milling a V-groove in a metal subbase. The V-groove is easily sawed in a wooden block. Length of the wooden subbase should be sufficient to cross both the V-way and the flat way of the lathe bed as in Figs. 1 and 3. When assembled, the rest is clamped in position on the lathe bed by a $\frac{5}{8}$ -in. bolt which passes

through the base, subbase and through a $\frac{1}{4}$ -in. steel clamping plate, as in Fig. 1. These parts are not detailed, as they must be made to fit the lathe on which the rest is used. Locate the center of the 3-in. hole through the back plate and then lay off and prick-punch centers of holes A, B, C and D, Fig. 2. Lay off, punch and drill the four holes at the bottom of the plate for the $\frac{3}{8}$ -in. cap screws with which it is attached to the base. Drill holes A, B, C and D and tap holes A. Then bolt the work to the lathe faceplate, blocking out for clearance and inserting the faceplate bolts through hole D and through hole C near the top of the plate. Center the plate and bore the 3-in. work hole through it. Break, or chamfer, the corners of the hole after boring so that the sharp edges do not cause injury. Drill and tap the base as detailed and bolt the parts together. Making the bearing-support arms is a simple drilling, tapping and filing job, but the adjustment studs should be turned and threaded in the lathe, after which they are drilled in a V-block and tapped. File or grind a flat on each stud to provide a seat for the jam nut on the adjustment screw. Note that two $\frac{1}{8}$ -in. holes are drilled transversely at 90 deg. through the end of each adjusting screw. In use, a small pin is inserted in these holes to tighten or loosen the screws when making adjustments. When the clamping studs are placed in the holes C, Fig. 2, the adjustment will provide for work from $\frac{1}{2}$ to 1 in. in diameter. When the arms are moved to the holes B, the adjustment range is from 1 to $2\frac{3}{4}$ in. in diameter. Ball bearings preferably should be of the grease-sealed type which are dustproof and do not require periodic lubrication.