SHERLINE PRODUCTS
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# TIP 9 — Spindle Depth Stop/John D. Cannon

John Cannon of Alexandria, VA sent in a nicely finished brass sample of this project. It mounts on the outside of the spindle shaft and the depth rod goes through the spindle. It is adjusted for length using set screws and acts as a “stop” for parts held in a chuck. This way a number of pieces can be placed in the chuck at exactly the same depth should your setup require it. John has turned down the final 3/4" of the end of the stop rod on the sample to a smaller diameter to fit through the chuck to hold a piece smaller than the 1/4" rod diameter. Mr. Cannon uses brass because he likes the way it looks and works, but you could also use aluminum or steel. Basic dimensions are shown in the drawing below. The bottom of the longer set screw that tightens against the brass rod should be ground flat to keep from leaving deep marks in the brass. You should also file a slight flat on the end of the lathe spindle to provide a seat for the shorter set screw. A regular cup-point set screw will leave a mark on the spindle and can distort the surface, making the stop body hard to remove. Filing a flat on the spindle will make the body easy to remove and also allow it to be attached in the same place each time.

*Figure 1—In the photo above you can just see then end of the brass rod inside the chuck.*

*Figure 2—This photo shows how the depth rod is attached to the lathe spindle. Loosening the outer set screw allows you to adjust the rod for depth.*

**CAUTION:** The rod should not stick out more than 3" past the end of the spindle. If it is out of balance, a long, thin rod can suddenly bend and whip around. If you need a stop for parts that extend deep into the spindle, use a shorter stop rod so it doesn't leave a lot of rod length rotating outside the spindle.

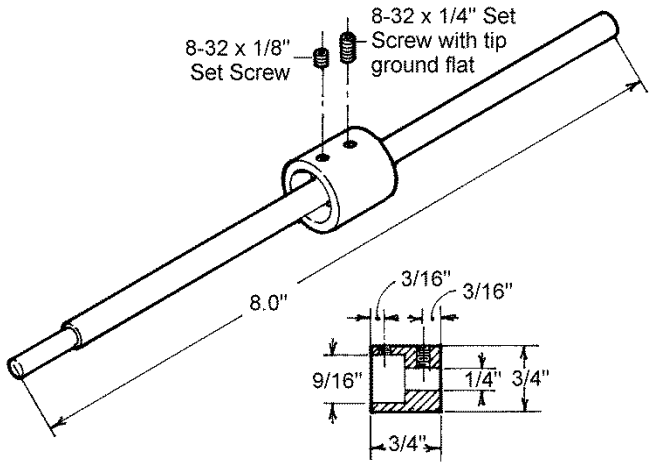


*Figure 3—A 1/4" diameter rod 8" long is used for the stop. The end can be turned down as needed so that parts smaller than 1/4" in diameter can be held in the chuck. The body is turned from 3/4" diameter stock. A cross-section of the body is shown above.*