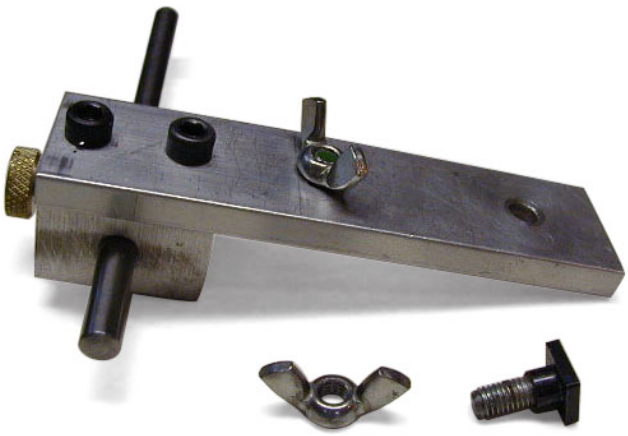
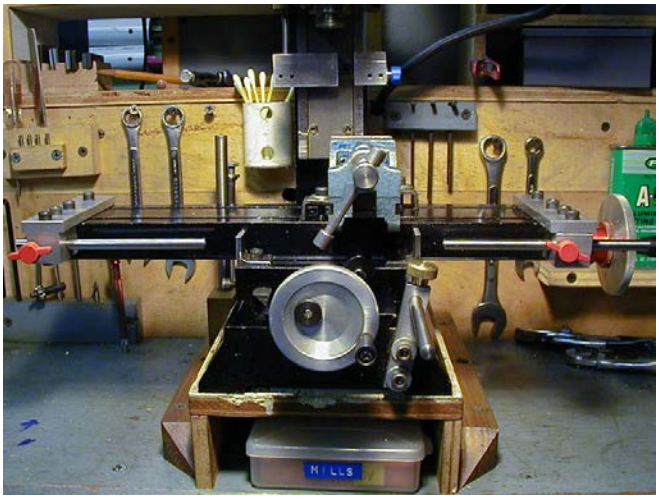
SHERLINE PRODUCTS
INCORPORATED 1974

TIP 25 — Mill Depth Stops/Tracy Atkinson





The left-hand photo shows the Y-axis depth stop. Here Tracy tried a knurled brass knob to lock the bar but felt it couldn't be tightened enough to keep the rod from moving. He now uses screws with a larger plastic handle for more leverage but suggests a small piece of brass between the end of the screw and the rod will protect the surface of the rod. In the right-hand photo both the Y-axis and X-axis locks can be seen.

Charles Tracy Atkinson wanted to make many duplicates of a particular part and needed a way to keep from having to count handwheel revolutions every time. While depth stops are not to be counted upon when extreme accuracy is needed, they will put you very close. They will also keep you from accidentally going one revolution too far and ruining a part. Additional photos and a description of these stops can be found in an article Tracy wrote for the December, 1997 issue of *Projects in Metal* magazine. (That magazine has since been renamed *Machinist's Workshop*.)

On the X-axis, Tracy made two bars that attach to the table using the standard T-slots and T-nuts. From this bar a block is suspended toward the front of the table. The block is cross-drilled to allow a rod to slide through it. The rod is locked with a locking screw. Two small angle brackets are secured to the top of the saddle for the bar to "stop" against. Tracy has tried both brass and steel screws and suggests the best combination between a strong screw and a material that won't mar the rod's finish would be a small length of brass inserted in the threaded hole for the steel screw to push against the rod. He found commercially available steel screws with handy plastic handles.

On the Y-axis, Tracy attached an aluminum bar to the front face of the mill base to the right of the Y-axis handwheel. This bar is cross drilled and a rod is inserted through the hole. The rod stops against the side of the table and is fixed in place with a knurled brass thumbscrew. The photos above make it all pretty clear. Though not described here, in the photo you can also see the dovetailed Z-axis stop Tracy added to the column.