

An Improved Mill Stop, version 2

By Brian Lamb as told to R. G. Sparber

Copyright protects this document.¹



What do you do when you must put a stop against a surface you then want to mill? One method is to place a block between them and then remove the block before milling. Here is a much better way.

¹ You are free to copy and distribute this document but not change it.



A sleeve has been added to the end of the rod. When fully extended, it locks in place and provides a solid reference surface for positioning the work piece.

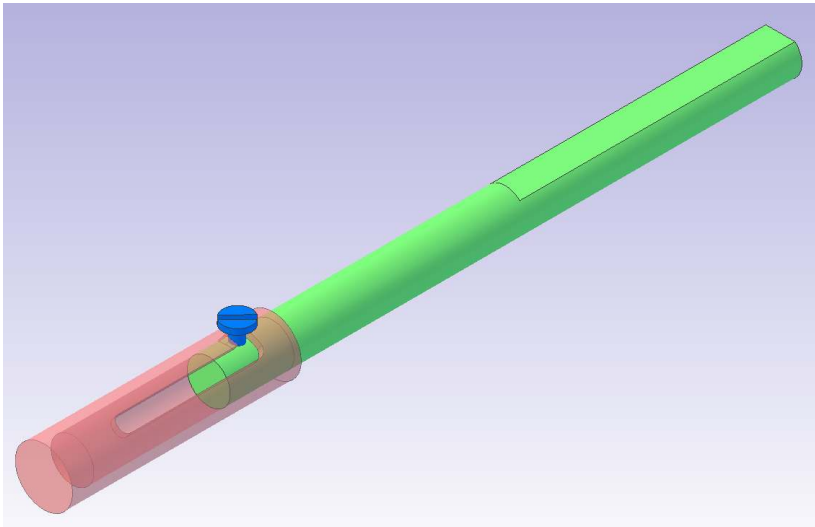


Rotate the sleeve to unlock it.

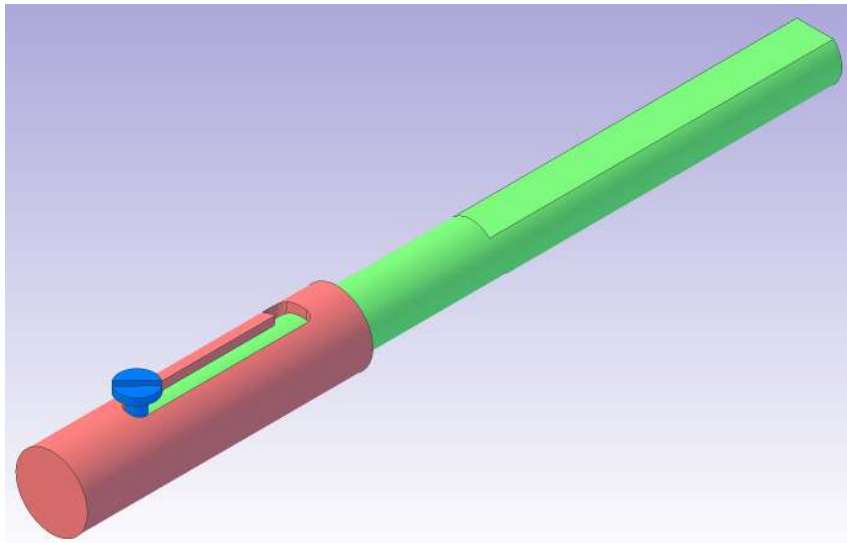


And slide it out of harm's way.

The sleeve is a close sliding fit on the support rod so it does not flop around and cause error.



Here is a view with the sleeve translucent and fully extended.



And here is the sleeve fully retracted.

I show a tapped hole and a screw for the pin but Brian pointed out that the threads will eventually wear on the slot so degrade the fit.

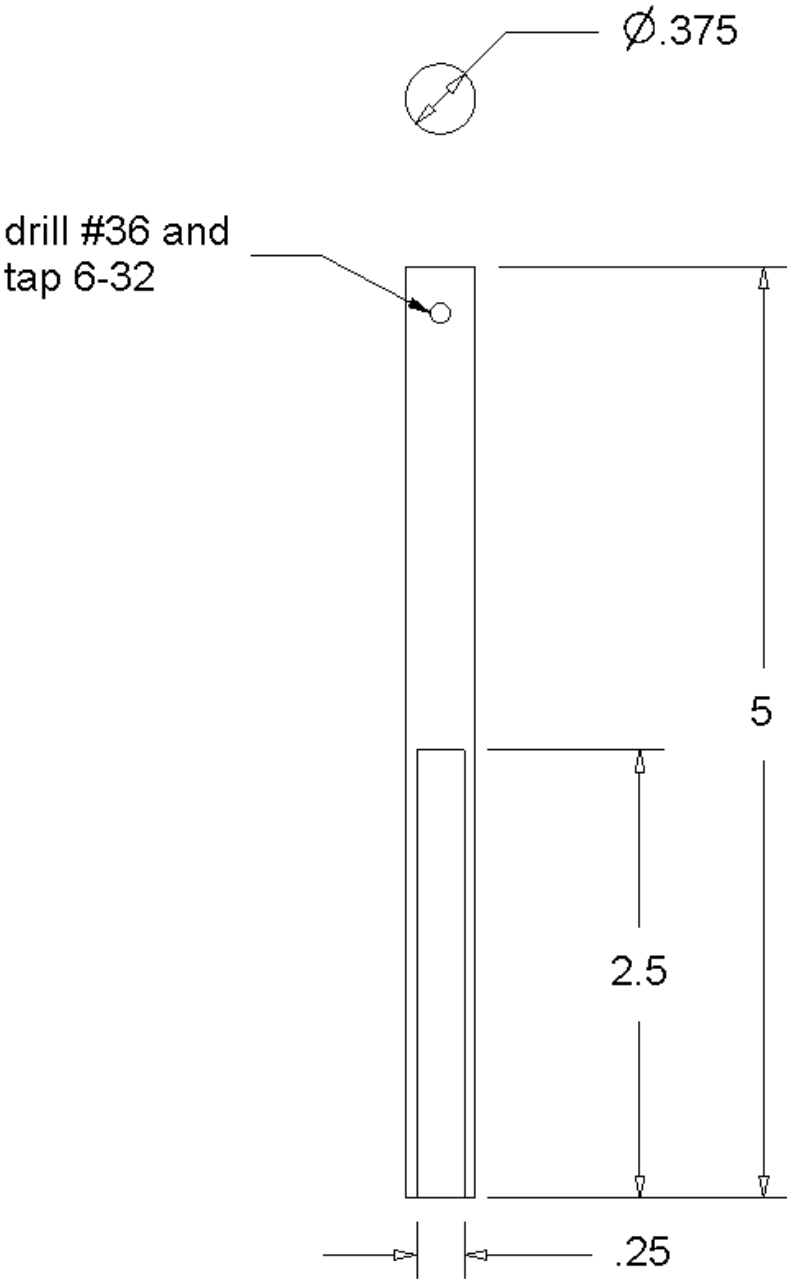
He suggests the following two possible design changes.

One solution is to use a shoulder bolt that has no threads under the head.

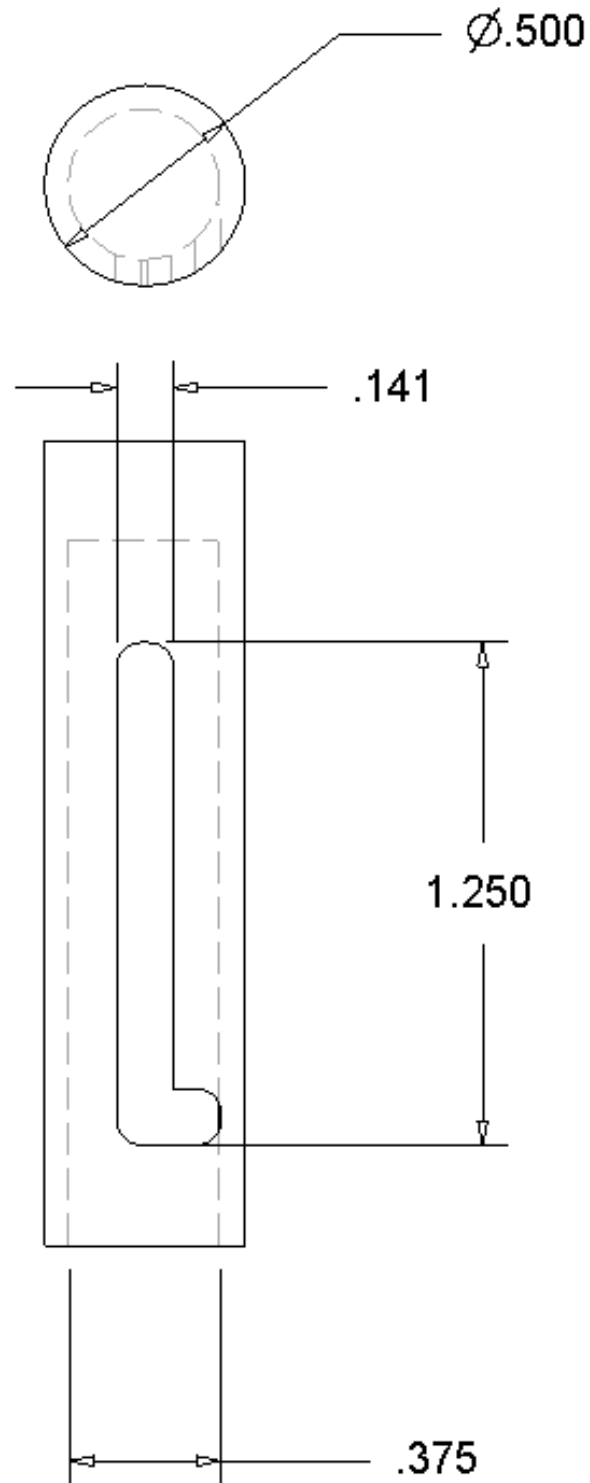
Another method is to position the sleeve in the locked position and then drill through both the support rod and sleeve. In this way you can drive in a roll pin in yet still be able to get it out easily.

Shop Drawings

Support Rod material: steel



Sleeve material: steel



Thanks to Brian for sharing this great idea with us.

I welcome your comments and questions.

Rick Sparber

Rgsparber@aol.com

Rick.Sparber.org

