A Very Smooth Slide and Lock Mechanism, Version 1.0

By R. G. Sparber

This is just a 1-inch rod sliding in a 1-inch hole. The set screw locks the rod at any height.

The tough part was that I wanted a smooth drag almost like the feel of hydraulics.

Fishing around in my junk draw produced a Dr. Scholl's shoe insert scrap. It is very resilient so why not give it a try?

I cut a circle out and then used a razor blade to separate the resilient part from the fiber backing.

Then I used a paper punch to form a ¼ inch diameter puck.

Here are all of the pieces. On the left is a scrap ¼-20 thumb screw. Next is an 1/8 inch diameter ball bearing. Then I have the puck of soft plastic.

The ball bearing prevents the turning of the screw from tearing up the puck.

I stuffed the puck into the hole from the inside of the bore and slid the 1-inch rod into place. Then the ball bearing and screw went in from the outside.

You will have to take my word for it. The rod slides with a nice amount of drag and a small turn of the screw locks it in place.

I welcome your comments and questions.

If you wish to be contacted each time I publish an article, email me with just "Subscribe" in the subject line. If you are on this list and have had enough, email me "Unsubscribe" in the subject line.

Rick Sparber
Rgsparber.ha@gmail.com
Rick.Sparber.org