A Benchtop Shoe, Version 1.0

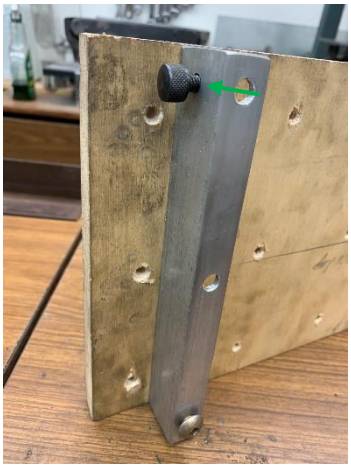
By R. G. Sparber

Marv Klotz from Homemadetools.net inspired this tool (https://www.homemadetools.net/homemade-panavise-hook)

My workshop contains nine dressers that, in a previous life, saw service in Freshman dormitories at Arizona State University. Although they only cost $5 each, they have served me well for over 15 years.

Their only deficiency is the lack of a clamping lip on the front and back. Marv's "Panavise Hook" to the rescue!

Since I do not own a Panavise, yet, I've decided to call my version of his idea a "shoe." It clips on the top of any of my dressers and resists pushing and lifting of the front lip.



My “hook” consists of a length of architectural[2] extruded aluminum. It is secured with countersunk screws (blue arrows). The holes above these screws provide access for my screwdriver. The bottom access hole was tapped 3/8-16 for a vertical setscrew (black arrow). At the top, I tapped ¼-20 for a horizontal setscrew (green arrow).

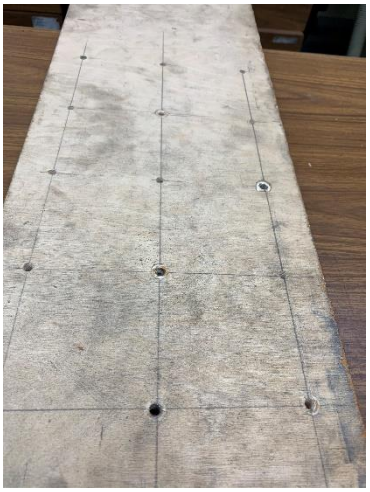
At the other end of the board is a piece of architectural extruded aluminum angle. It is secured the same way, with 3 countersunk screws.

I install the shoe by sliding the channel under the front lip of the dresser. When it makes contact, the angle drops over the far edge.

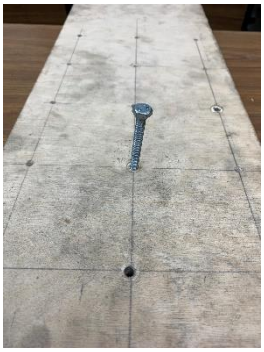
If I want to prevent the shoe from sliding sideways, I tighten this thumbscrew. I can tighten the vertical setscrew to stop the shoe from lifting.

I can also slide the shoe sideways to get a clamping lip on the flank of the dresser.

[2] This means the inside corner has no fillet.



The board was first drilled 3-inches on center using a #4 drill. Then I chucked up a length of ¼-20 threaded rod and tapped all of the holes.



Here I have secured a fence.

Each hold-down clamp is secured with a chair leg adjustable foot[3] and a Socket Head Cap Screw. To prevent screws from pulling out of the wooden threads, I screw in the chair leg bolt in about ½-inch.

It is easy to add tapped holes since this is just wood. If I needed more pulling strength, I could add a 1/4-20 insert or a pronged T nut. There is a 1/8-inch gap between the bottom of the board and the top of the dresser.

[3] Chair leg *foot* installed in a *shoe*…

Acknowledgments

Thanks to Marv Klotz for yet another inspiring tool.

I welcome your comments and questions.

If you wish to be contacted each time I publish an article, email me with "Subscribe" in the subject line. In the body of the email, please tell me if you are interested in metalworking, software, or electronics so I can put you on the best distribution list.

If you are on a list and have had enough, email me "Unsubscribe" in the subject line.

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