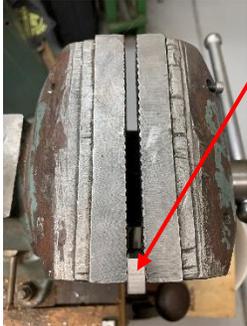


Bench Vise Jaw Jack, Version 1.0

By R. G. Sparber

Protected by Creative Commons.¹

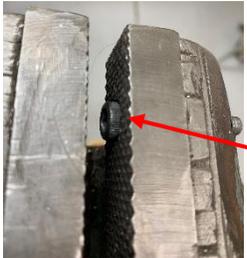


Sometimes I need to clamp a piece of stock at the end of my bench vise jaws. The problem is that if there is no “packing” on the other end, the jaws tilt slightly. This means the jaws are not squarely clamping the stock so it tends to slip. More tightening means more tilting.



If the correct thickness of packing is available, sure I will use it. I tend to use steel packing because I can then place a bar magnet over the top to secure it before tightening.

More often than not, the stock I want to clamp is an odd thickness. Using packing that does not match is no different than using no packing. So how can I take an undersized piece of packing and make it a perfect match to my stock?



The answer is to use a “jack screw”. Well, it turns out I have one built-in.

The trick is to partially back out one of the socket head cap screws (SHCS) that secure the jaw inserts. Ah, but there is a hitch – how can I turn the screw when it is down in the gap between jaws pushing on some packing?

¹ This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

My solution was to provide access from outside of the jaws.



I removed the SHCS and put it on my lathe where I could drill and tap the end 8-32 to a depth of about ½ inch. There was already a through-hole in the movable jaw support which gave me access to the end of the screw.

To assemble, I first installed the large SHCS back into the vise jaw. Then I close the jaws and screwed in the small SHCS. The thread down the center of the large screw is partially cut at the bottom so by tightening the small SHCS, it wedges tight.

The large SHCS only needs to be finger tight against the packing so there is little force on the small SHCS.



I lightly clamped the stock at one end of my vise jaws, placed the undersized packing on the other end, and finger tightened the small SHCS with a hex wrench. I then fully tightened the vise and jaw tilt was minimized.

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