

A Vise Jaw Extender, Version 1.3

By R. G. Sparber

Protected by Creative Commons.¹

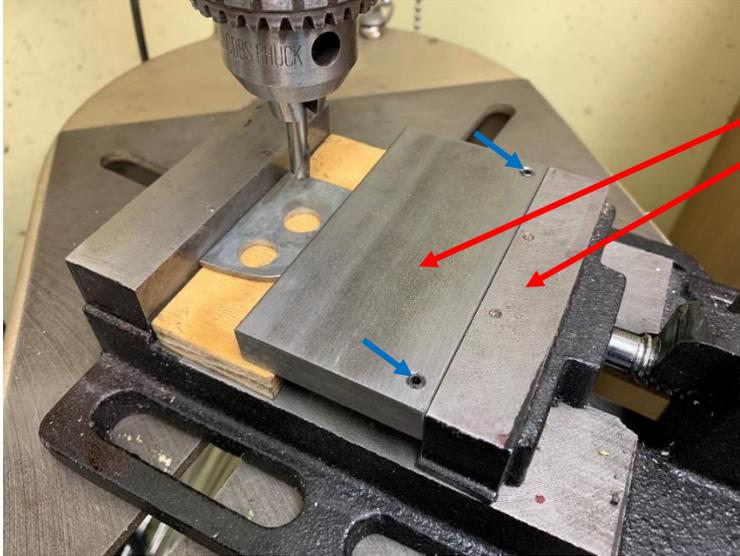


Say I wanted to drill a hole in this piece of stock and not “tag” my drill press vise. It is common practice to place a piece of wood under the stock. The wood must be strong enough to resist the downward force, wide enough to provide stability yet narrow enough to allow the movable jaw to contact the stock. All that is true here.

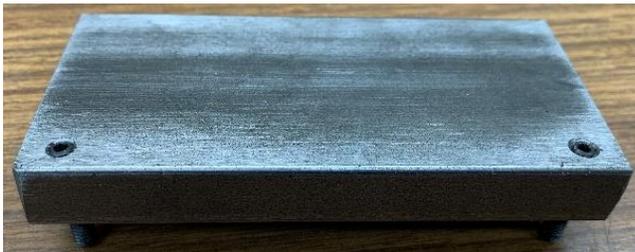


But in this case, my movable jaw cannot reach the stock because my scrap of wood is too wide. Now, I could cut the wood to be narrower but this will also weaken it. I prefer a solution that doesn’t require constantly cutting bits of support wood. Besides, I’m always looking for new ways to do old things.

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.



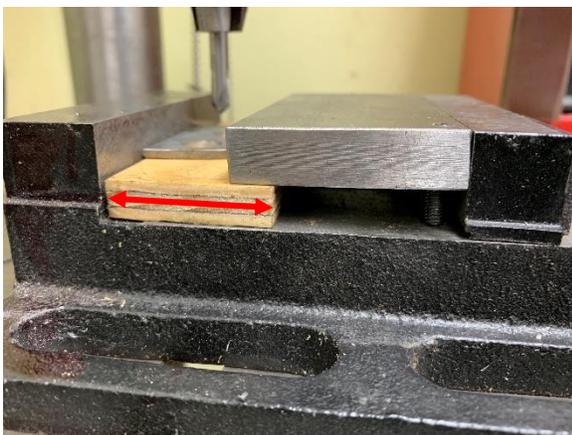
My solution was to make an extension jaw. It extends the movable jaw *over* the wood scrap. And if this wood is replaced by some with a different thickness, two set screws (blue arrows) can be adjusted to return the extension jaw to level.



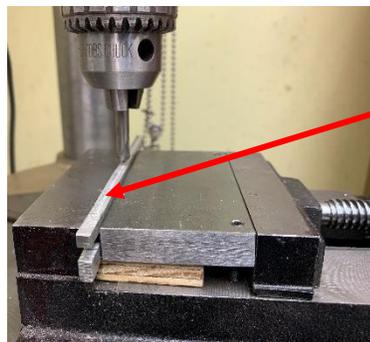
The extension jaw is made from a 1/2 inch by 2 inch bar of mild steel that runs the width of the movable jaw. I drilled and tapped two holes near the back corners 8-32 and threaded in set screws.



The extension jaw is placed on the vise ways overlapping the wood.



Note that the wood can be almost as wide as the extension jaw and not interfere.



Yet I can support and clamp thin stock.

Improvements



John Herrmann suggested adding magnets to the edge in contact with the movable jaw. I found that a single 1/8 inch thick, 1/4 inch diameter neodymium magnet was sufficient to keep the extension jaw

attached to the movable jaw. I slightly recessed the magnet so it would not experience any clamping force. That could crack it. A cover layer of elastomer prevents bits of metal from filling the recess.

F. D. Windisch suggested putting a 2 to 3° bevel on the edge contacting the movable jaw. It will lessen the tendency of the extender to kick up out of engagement.

Acknowledgments

Thanks to John Herrmann and F. D. Windisch for their design improvements. Thanks to Dave Kellogg for editorial suggestions.

If you wish to be contacted each time I publish an article, email me with just "Article Alias" in the subject line.

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