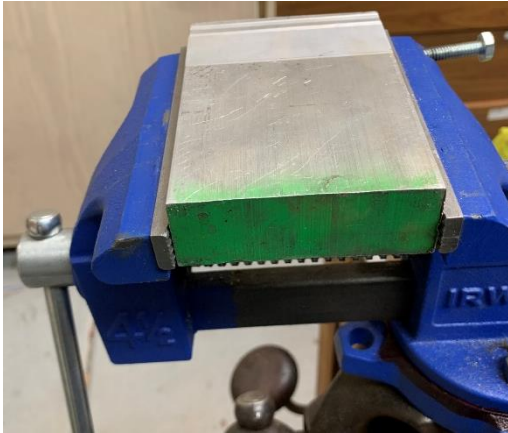


Bench Vise S-Hooks, Version 1.0

By R. G. Sparber

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Most of the time, I clamp blocks squarely in my bench vise. I support the block with one hand and tighten the vise with the other hand. If I need two hands to support the block, I'll gently snug the vise and tap the block into position. It's not ideal, but it works most of the time.



Once in a while, I must clamp the stock at an angle. This requires me to use one hand to support the movable jaw side of the stock and one hand on the fixed jaw side of the stock.

I'm left with no free hand to turn the vise handle.

I'm not always able to snug the vise and tap the block into position-

If my taps make the stock closer to horizontal, the stock tightens so it won't move.

If my taps make the stock closer to vertical, it falls out.

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My solution is to make three S-hooks out of thin sheetmetal.



They hook over the vise jaw liners.

Which jaw receives the hooks depends on the application. For tilted stock, I will only need two hooks.



With the S-hooks holding the stock at the movable jaw, I have one hand free to adjust the stock at the fixed jaw and a hand free to tighten the vise.

Horizontal stock will use three hooks. I would put two hooks on one jaw and the third hook on the opposing jaw.

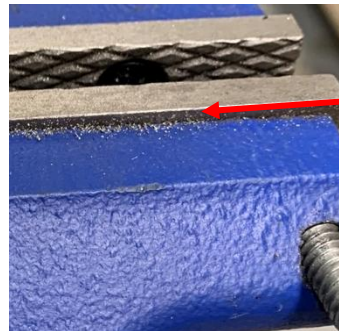
Making these S-hooks involved very crude cold metal forming.



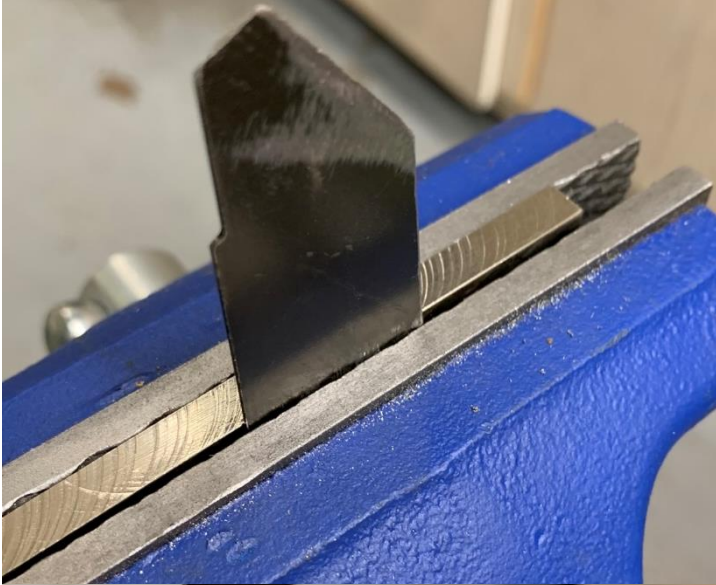
I started by finding a steel bar about the same width and thickness as one of my jaw inserts. I clamped a strip of 0.03-inch thick steel sheetmetal between the movable jaw and this steel bar such that about $1/8^{\text{th}}$ of an inch was proud.



Using a ball peen hammer, I flattened the exposed end down. Then, I used my belt sander to shorten this tab to be about 0.05 inches long.



I want it to hang over the vise jaw liner and not hit the vise jaw.



With my steel bar resting on this lip, I clamp the assembly back into the vise. The steel bar is flush with the top of the vise jaw liners.

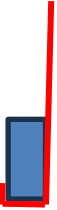


Then, I clamp the stock so the bar is horizontal while being supported by the lip. When I hammer this tab over to the right, I've formed my top hook.





I rotated the bar so its face is against the jaw liner, and the sheetmetal is clamped vertically. Note that the hook is on the underside, pointing to the left.



I again use my hammer to bend the stock to the right.



I trimmed this down to about $\frac{1}{4}$ inch.



The top of each S-hook only needs to hang onto the jaw liner. It is not a precision fit.

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