

Making the Jim Claar Anvil Vise

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Jim Claar made this kind of vise when he was asked to make 20 hooks for a pot rack. He wanted to be able to form the hooks under closer scrutiny than allowed by the low height of an anvil. A post vise provides the right height but not enough surface to work the hooks. To solve this problem, Jim modified a post vise by cutting off the rear jaw and welding in its stead a stake anvil. His design seems to be a natural progression of the post vise, extending its use to work where good clamping power enables the use of both hands to form metal. I found his design intriguing and decided to build one myself. On these pages, you will find construction notes.

To begin, you need a post vise and a small anvil. A post vise with 4 ½" jaws seems to be just about the right size. While I would have liked to use a slightly larger anvil, I settled for a 25 pound anvil that is 11 ½" long and has a 3 7/8" wide face. Both were in pretty good shape. It takes some heart to cut up a perfectly fine tool, however, the end result is a tool that is far superior to each of the individual ones.

Cut off the rear jaws fairly close to the screw hole as seen in figures 2 and 3. This way, you can leave as much of the anvil as possible, giving you more mass. Cut the anvil so that its top aligns with the top of the front jaws. In order to ensure a strong weld, grind a ½" bevel in the front and rear of the anvil as well as the front and rear of the vise. See figures 2 and 3 for details. There is no need to cut a bevel on the heel and throat of the anvil as the bottom of the cut anvil and the top of the cut vise form quite a large cavity.

The welding was done by a local fabrication shop. I gave them the post and anvil and asked them to weld the anvil so that it is

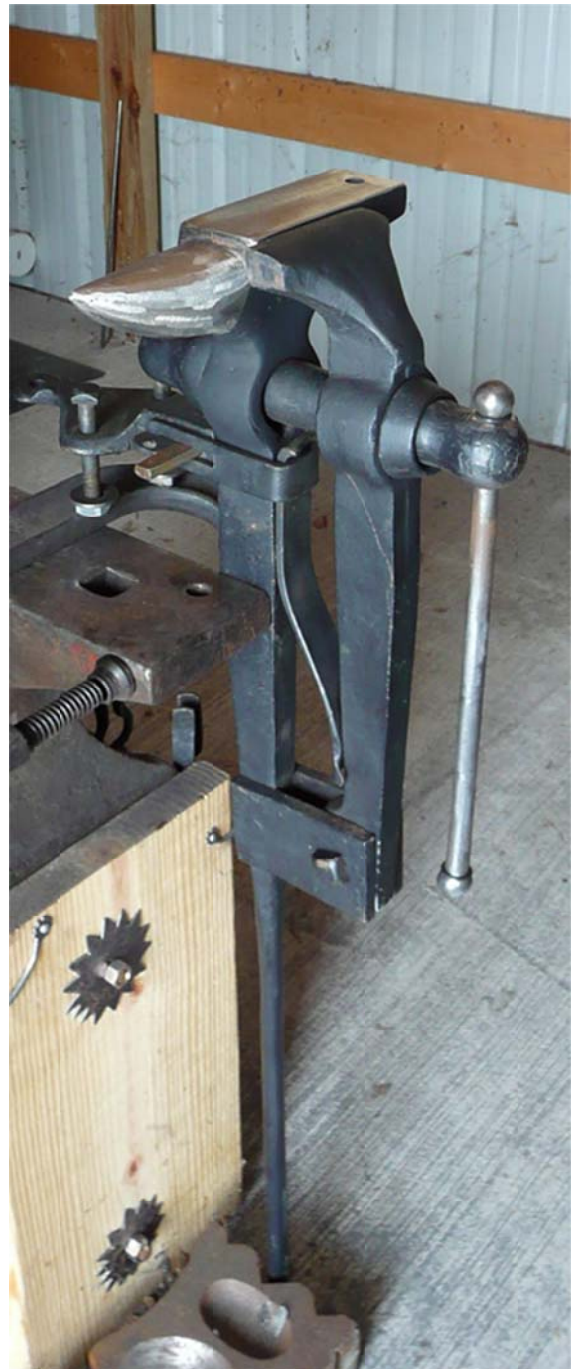


Figure 1: Finished vise

square to the post. This was a mistake. As the post is forged and has a taper to it, it is hard to determine a good reference point for squareness. Instead, assemble the front jaws to the back post when dropping off the welding job, giving the welder the intended reference points. It pays to take some time to aligning the anvil to the post when first tack welding them. The more precise you align the anvil with the front jaw, the less grinding you will have to do.



Figure 2: Dry-fit anvil and leg showing the ground bevels



Figure 3: Cavity created by the anvil and vise top.

Figure 4 shows the weld between the anvil and the leg. As you can see, they did a fine job filling in the cavities. Next, clean up the

welds and grind the sides of the anvil as well as its top so that it aligns with the front jaw.



Figure 4: Anvil welded to post.

Figure 5 shows that the left side of the jaw does not line up neatly with the side of the anvil, instead there is an overhang. While not intended, I imagine that this may come in handy when attempting to bend a piece over the horn, while holding it tightly in the vise.



Figure 5: Detail showing jaw overhang.

All in all, this was a neat project. I am anticipating years of back-saving use.