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Acme Hold Down

One of my students and I have been messing with Acme screws as applied to post-vises but another application occurred to me - use an Acme scew as a hold-down. I just happened to have a large C-clamp (the type used to clamp I-beams together prior to welding) and it had a 3/4" Acme screw. A little time with a torch and a mill allowed the clamp to slip through the hardy hole (1.25" square) on my anvil. I milled a 3/8" wide slot (about 1.5" long) in the tail of the clamp and fabricated a saddle to span the anvil's face. The saddle had a small piece of 1" channel and a bolted block on the saddle's upper surface that captures the ball-end of the clamp's screw.

The result is shown here. No more hot pieces popping out from underneath this hold-down!



The image here shows the wedge that taps into place and locks the device in the anvil. The unit takes a couple of seconds to install and virtually the same time to use as the usual bent-rod-in-the-pritchel-hole tool but without the drama of sliding off the stock.

We have sourced some 3/4" Acme screw and nuts and will fabricate something like this from stock steel for my demoanvil (3/4" hardy hole) and the student's anvil. When that happens, I'll add those images here.

