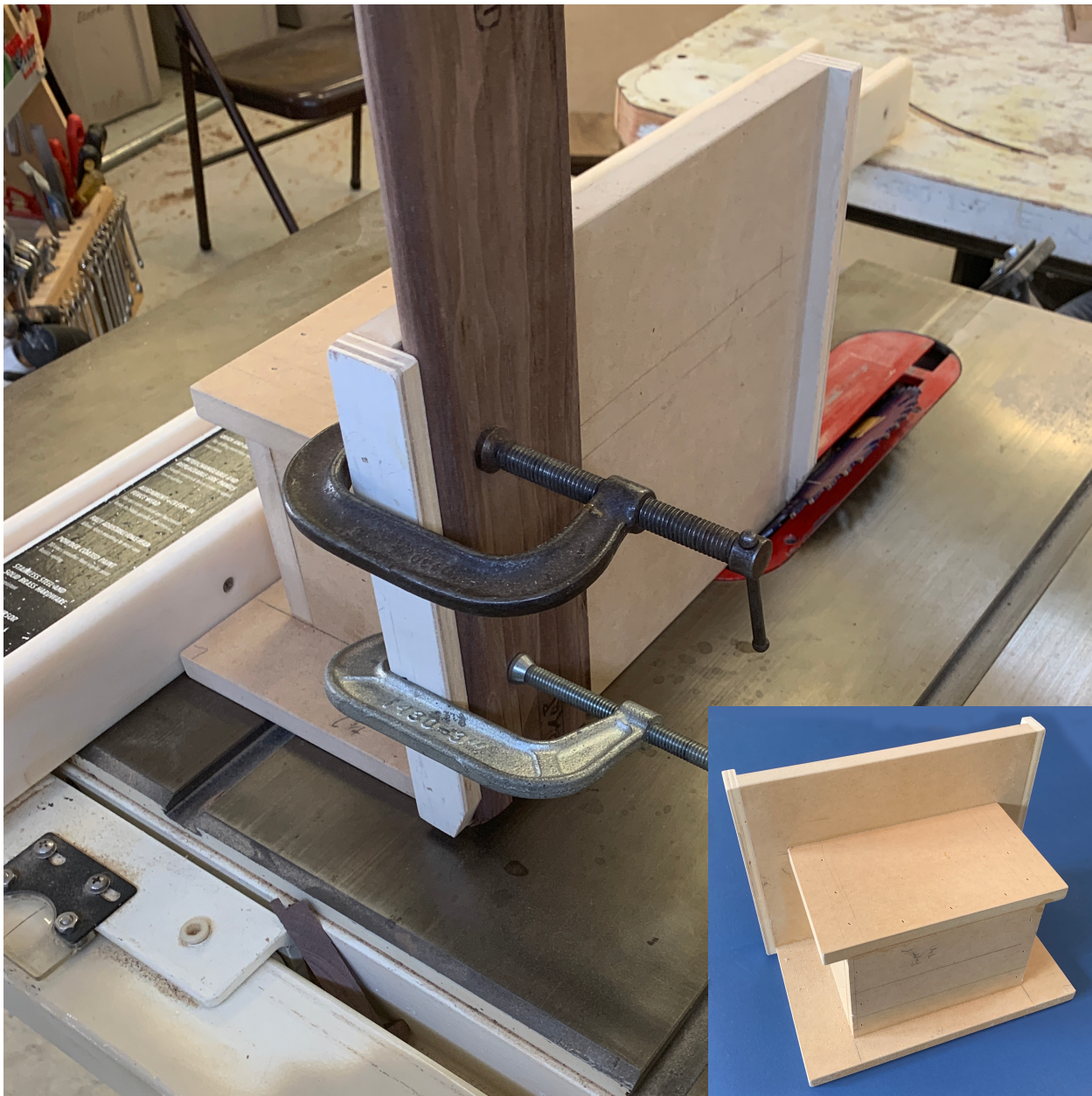




Tablesaw Vertical Tenon Jig

Small Angle Vertical Mitre Jig

I made this vertical tenon jig to cut the 22.5 degree miter angles required for my flag display case. The vertical orientation of the frame pieces when securely clamped to the jig, provided me a safe and accurate method to cut these small angles.

Tip (the obvious!)... your miter cuts will only be as accurate as your jig. So make sure your assembled jig angles are all exactly 90 degrees!

The frame ends were cut by first securely clamping a piece to the jig. Then while securely holding the jig against the tablesaw fence, I pushed the jig forward to cut the 22.5 degree angle. Cutting slowly for the final 1/8" or so was required to prevent tear-out. I probably should have used some tape as a better / more reliable solution to the tear-out.

These instructions include the following:

1. Tenon Jig Photo (see above)
2. Construction Tips
3. Parts List + Exploded View
4. Drawings
5. Downloadable Files (LeisureNotes.com)
 1. Tenon Jig Instructions (pdf file)
 2. 3D CAD Model (STEP file)

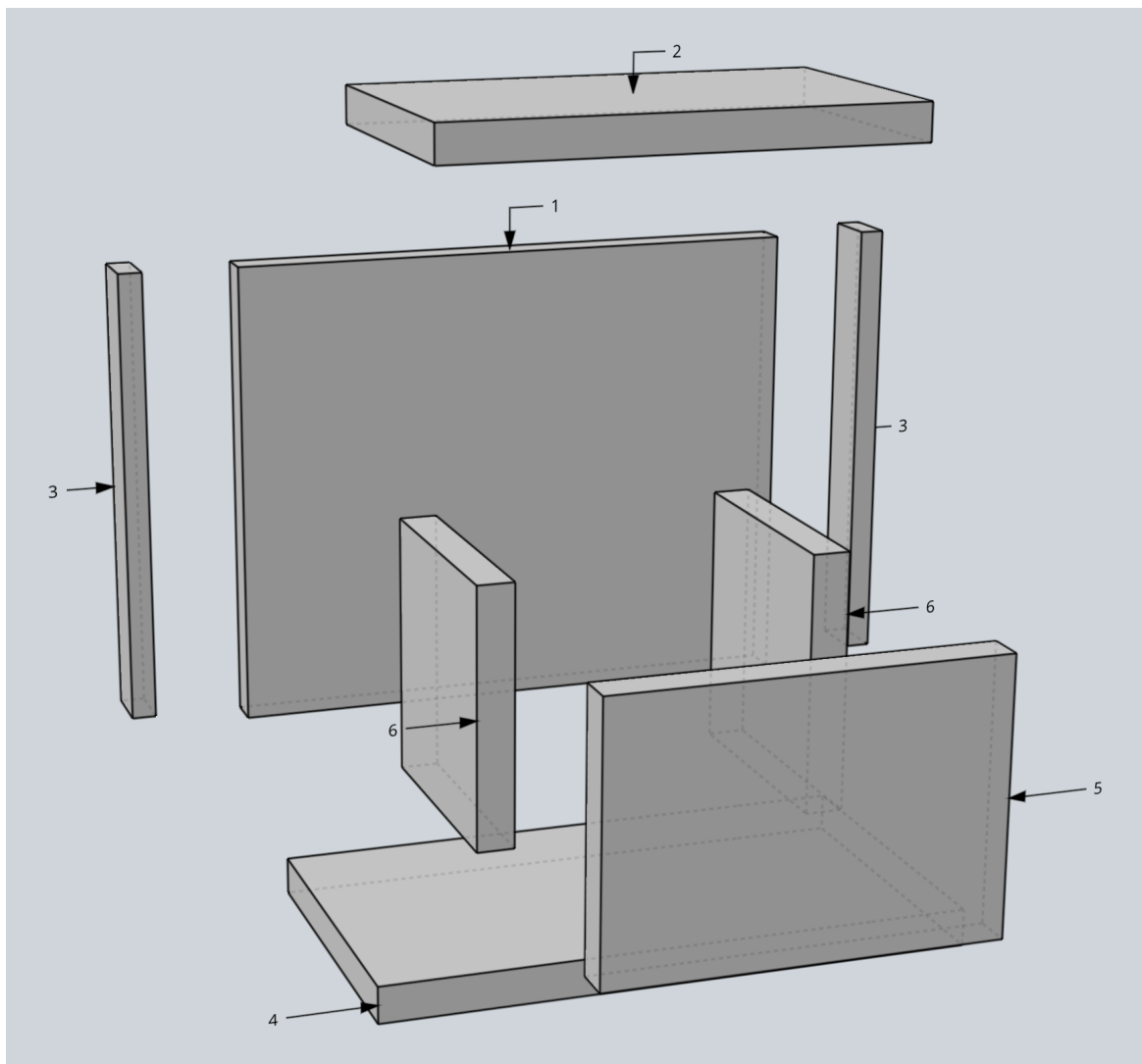
Construction Tips

The Tenon Jig construction requires very little explanation. Just make sure your pieces have square edges and angles. The jig pieces were assembled using glue and nails.

I used a machinist right angle jig to help me accurately assemble the jig. As mentioned previously, the jig must have accurate 90 degree angles to be useful. Parts were clamped or temporarily fastened to the fixture during assembly.



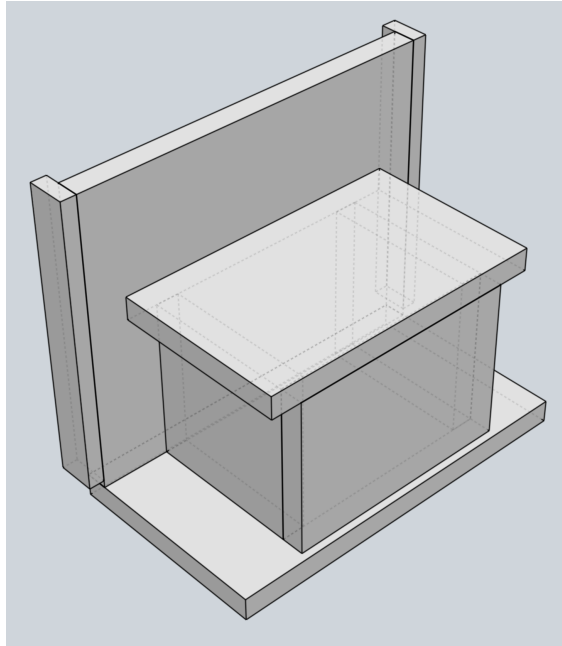
Machinist Right Angle Jig



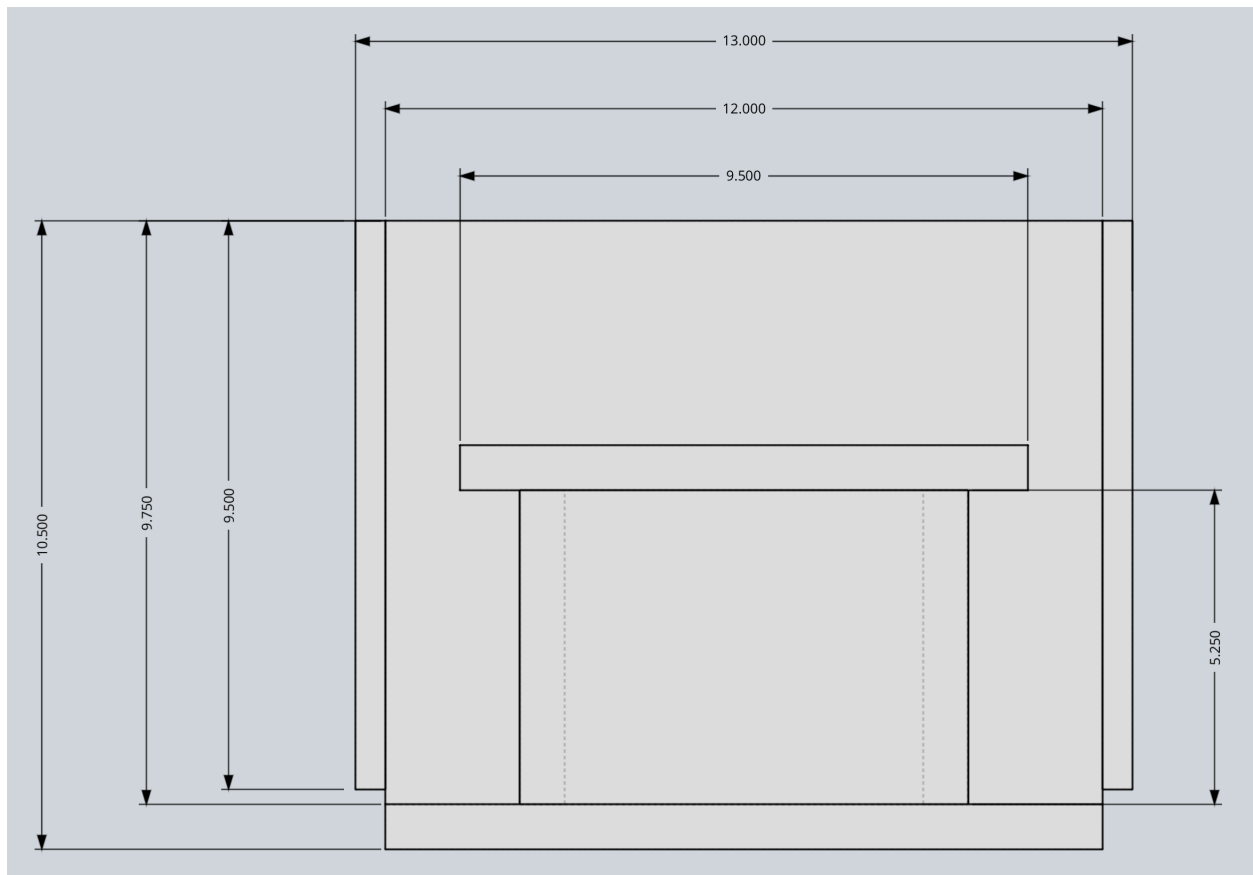
Tenon Jig Exploded View

Parts List

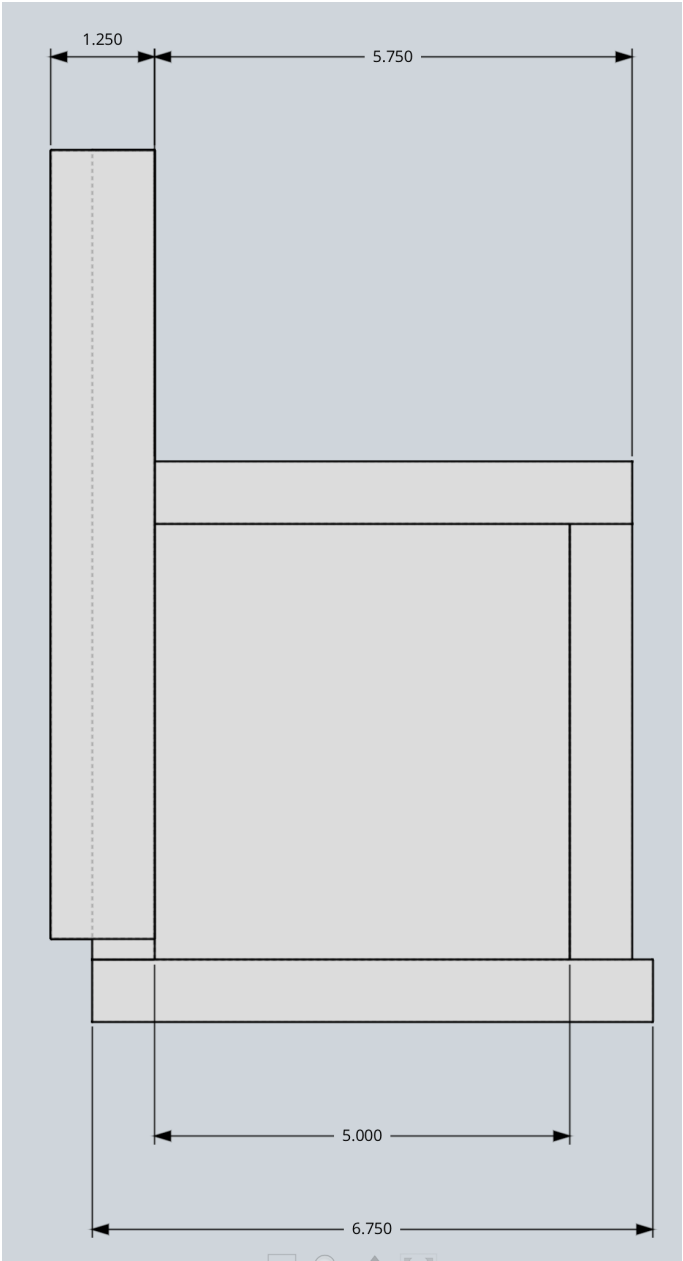
ID	Part	Dimensions	Material	Qty	Notes
1	Jig front	3/4 x 12 x 9 3/4"	Plywood	1	
2	Support top	3/4 x 9 1/2 x 5 3/4"	Plywood	1	
3	Jig end stop	1/2 x 1 1/4 x 9 1/2"	Plywood	2	
4	Jig bottom	3/4 x 12 6 3/4	Plywood	1	
5	Support back	3/4 x 7 3/4 x 5 1/4"	Plywood	1	
6	Support side	3/4" x 5 x 5 1/4"	Plywood	2	



Vertical Tenon Jig



Vertical Tenon Jig - Back View



Vertical Tenon Jig - Side View