

Workbench Plans Free Preview



This free preview contains twenty six pages from our complete Workbench plans. With this free preview, you can see the details of building the workbench.

To purchase the complete plans with detailed parts drawings, [click here](#).

Table of Contents – 1

Dimensions Drawings

Materials List – 1	x
Materials List – 2	xi
Cutout Drawings Base/Back	xii
Cutout Drawings – Top	xiii
Cutout Drawings – Panels	xiv
Cutout Drawings – Misc	xv
End and Center Panels	1
Base Dimensions & Layout	2
Back Dimensions & Layout	3
Top Dimensions & Layout	4
Sub Top Dimensions & Layout	5
Top Trim and T-Track	6
Drawer Slides, Stiffener, Misc. Small Parts	7
Drawer Fronts, Front Trim, and Doors	8
Drawer Boxes Dimensions	9
Middle Shelf	10

Table of Contents – 2

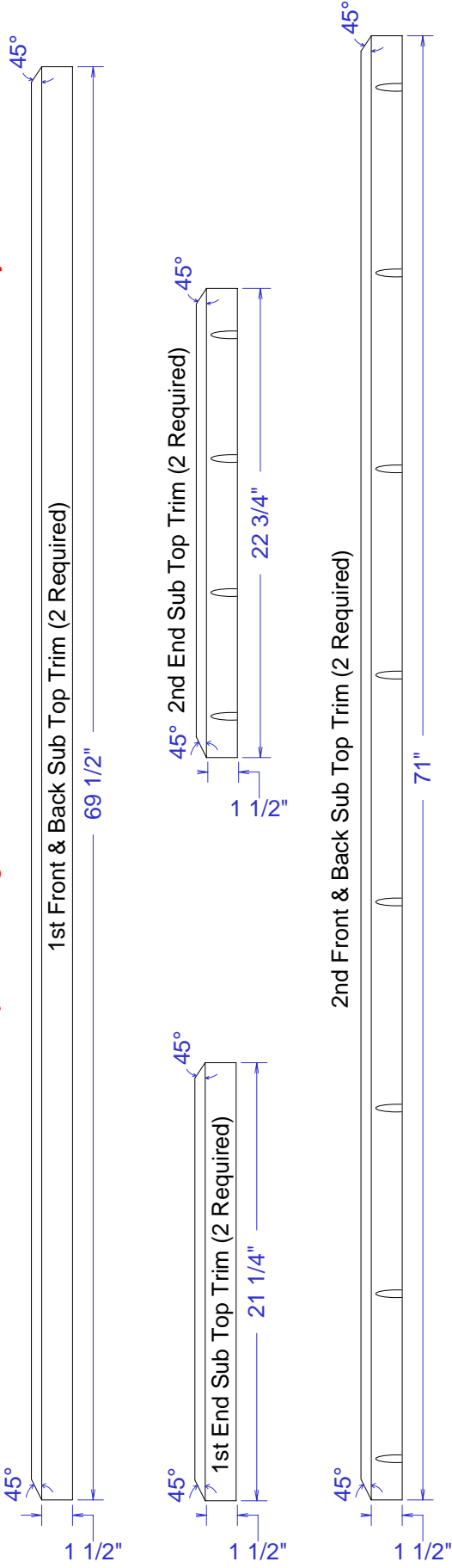
Assembly Instructions

Drawer Slides - Left Section - Left Panel	11
Drawer Slides - Left Section - Right Panel	12
Drawer Slides - Center Section - Left Panel... ..	13
Drawer Slides - Center Section -Right Panel	14
Drawer Slides - Right Section - Left Panel	15
Drawer Slides - Right Section - Right Panel	16
Base to Panels	17
Stiffener - Casters	18
Attach the Back	19
Assemble the Face Frame	23
Attach the Middle Shelf	20
Assemble the Face Frame	21
Attach the Face Frame	22
Attach the Leveling Blocks to the Panels	23
Attach the Front & Rear Leveling Blocks	24
Attach the Sub Top	25
Attach the Inner Trim	26
Attach the Middle Trim	27
Attach the Top	28
Attach the Track to the Top	29
Attach the Track to the Front & Ends	30
Attach the Lower Trim	31
Assemble the Drawer Boxes & Fronts	32
Attach Cabinet Doors	33
Attach Middle Door trim	34
Clamping System Parts	35
Assemble the EZ Mount Stop	36
Clamping System Usage Instructions	37
Clamping System Illustrations	38
Clamping Long Work Pieces	39
Snapshots.....	40

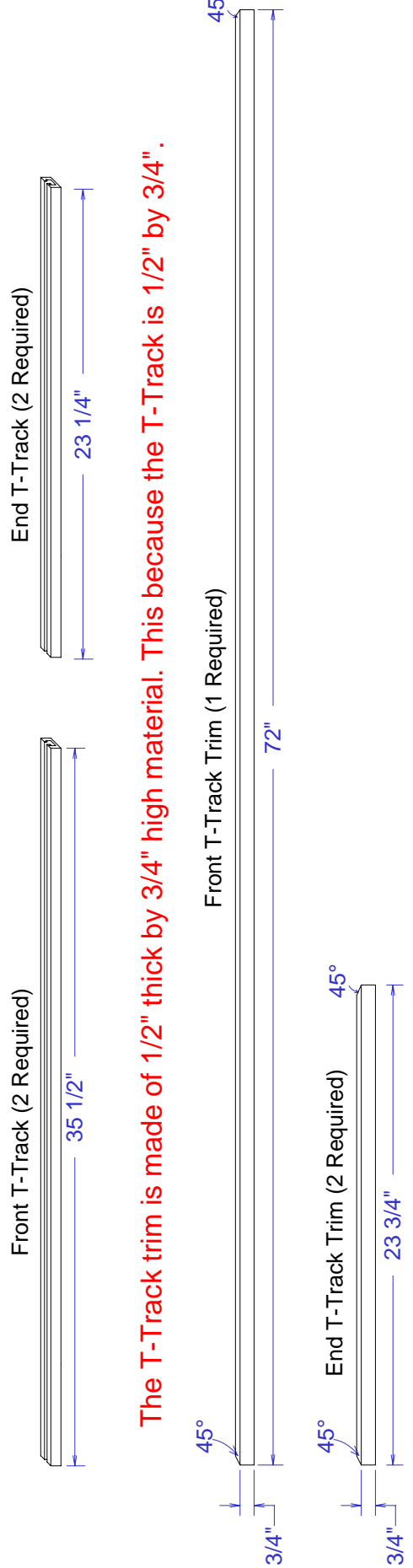
Top Trim & T-Track

Page 6

The Sub Top trim is made of 3/4" thick by 1 1/2" high material. This because the T-Track is 1/2" by 3/4".



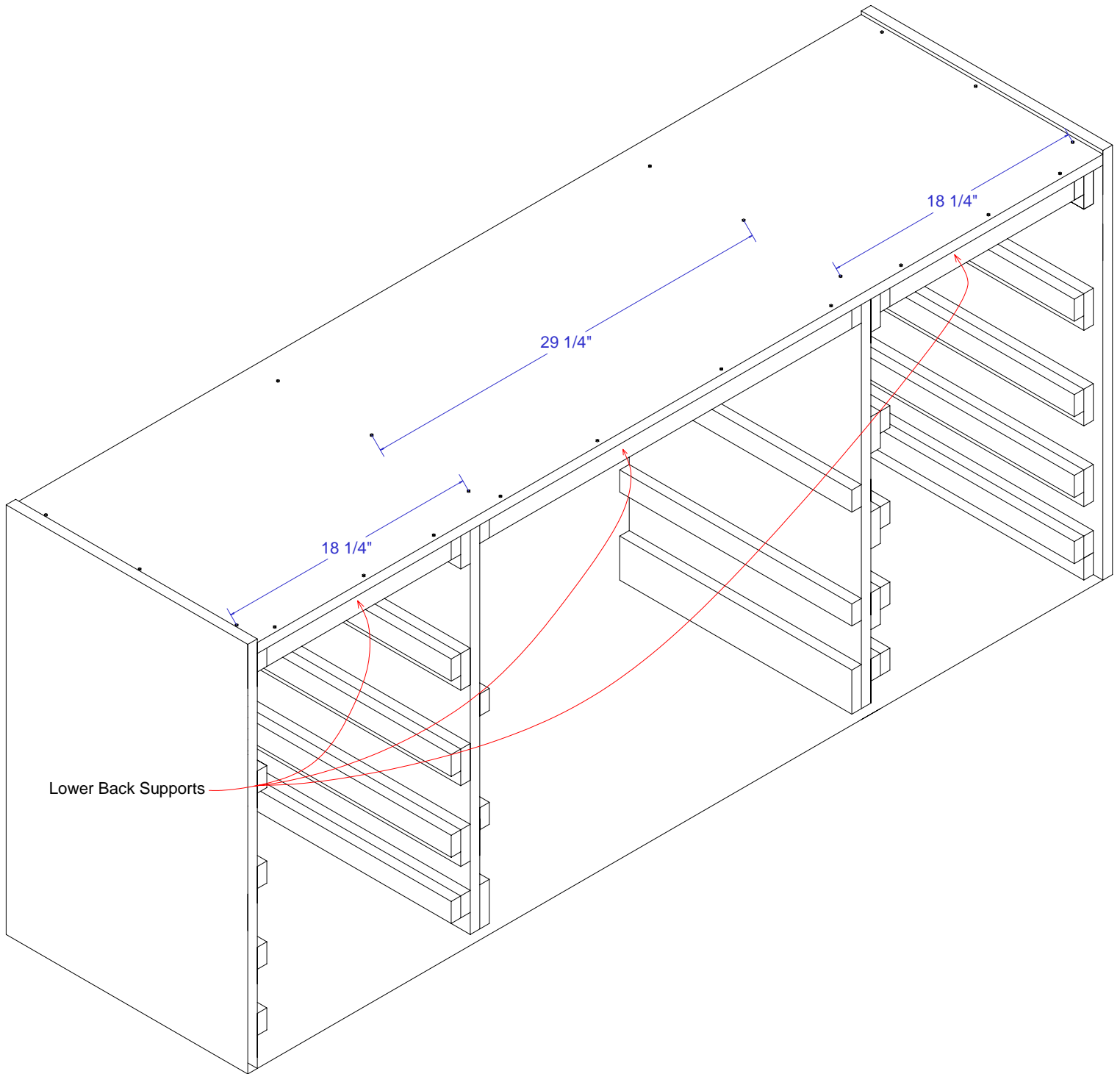
If you have a pocket hole jig, I recommend drilling pocket holes in the 2nd Sub Top Trim pieces as shown. These pocket holes will be used to secure the Top to the Sub Top. The exact location of the pocket holes is not critical. The important thing is that they do not line up with the screw holes in your T-Track. If you do not have a pocket hole jig, the Top can be secured with finishing nails or glue.



The T-Track trim is made of 1/2" thick by 3/4" high material. This because the T-Track is 1/2" by 3/4".

Attach the Panels to the Base

Page 17



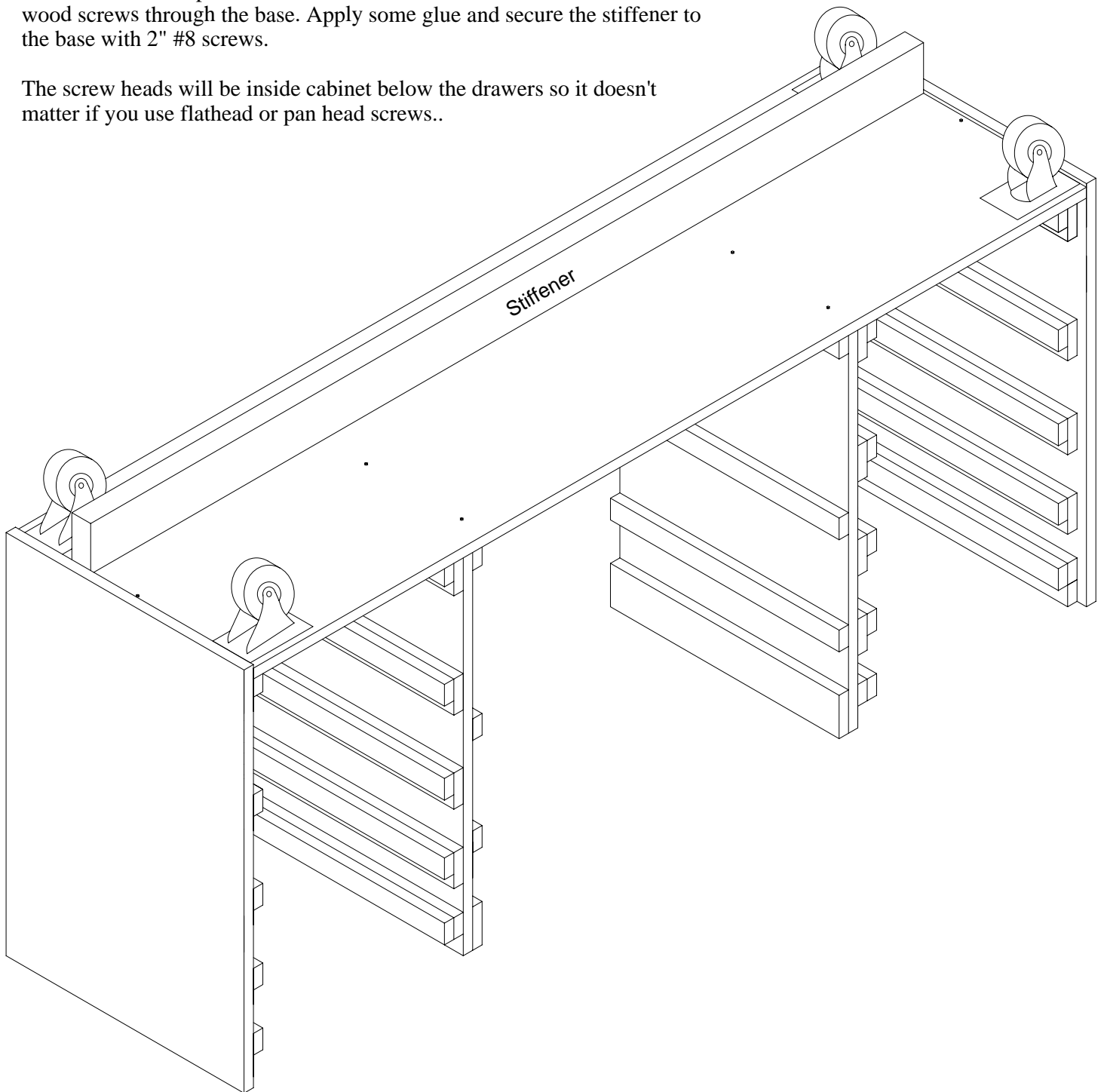
Lower Back Supports

Attach the Stiffener & Casters to the Base

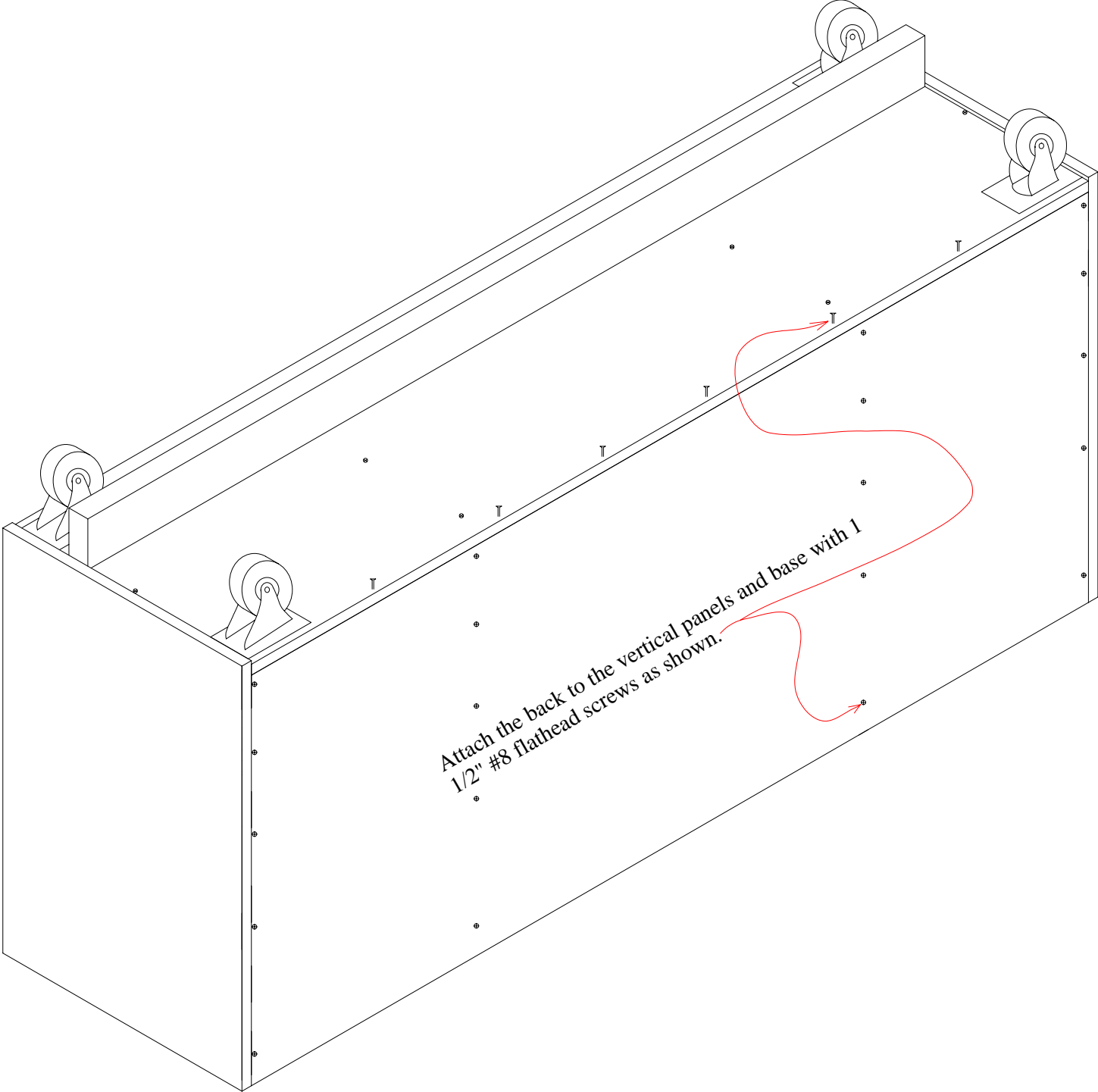
Page 18

Attach the casters to the base as shown. Then position the stiffener as close to the front as possible while still allowing clearance for the swivel casters to rotate. Mark the position of the stiffener, then drill about six holes for #8 wood screws through the base. Apply some glue and secure the stiffener to the base with 2" #8 screws.

The screw heads will be inside cabinet below the drawers so it doesn't matter if you use flathead or pan head screws..

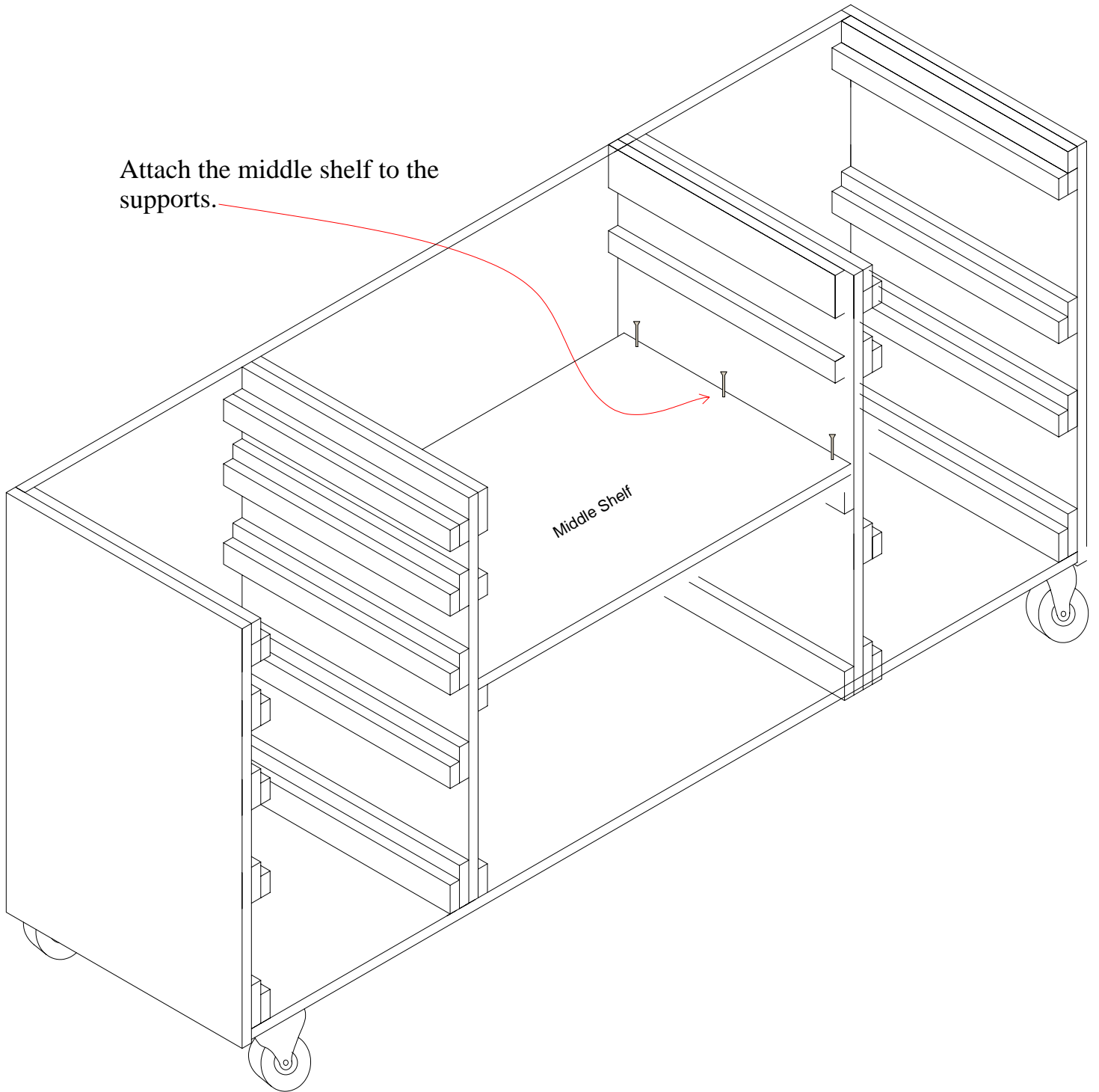


Attach The Back



Attach the Middle Shelf

Page 20



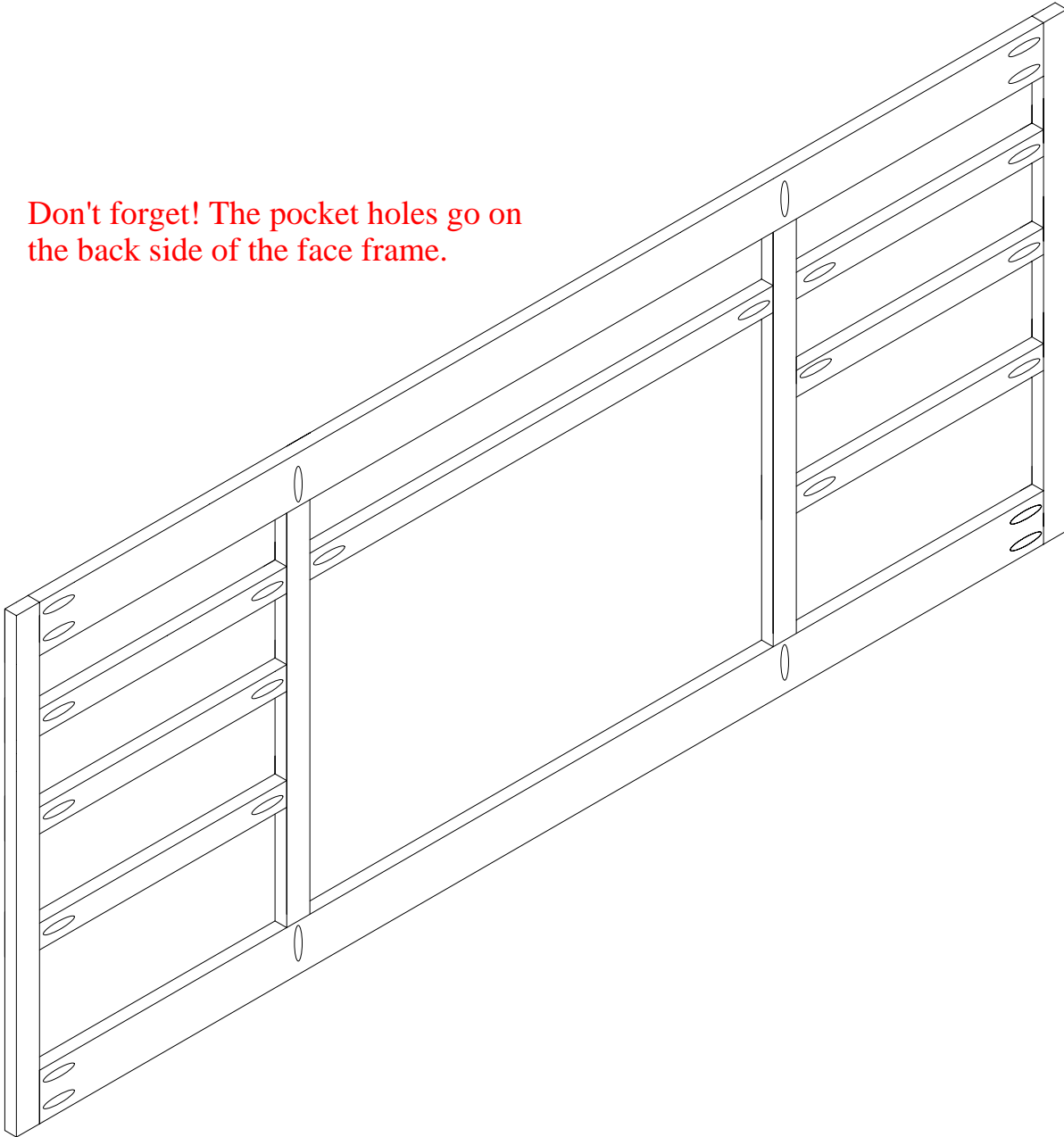
Attach the middle shelf to the supports.

Middle Shelf

Assemble the Face Frame

Page 21

Don't forget! The pocket holes go on the back side of the face frame.



Assemble the front trim pieces (face frame) as shown. Be sure the horizontal drawer separator pieces are properly spaced so they line up with the drawer slides.

The top of each piece of horizontal drawer separator trim should be flush with the top of a drawer slide.

Pocket holes are the easiest way to join trim or face frames as they are often called. if you don't have a pocket hole jig, you can use dowel joints.

Attach the FaceFrame to the Cabinet

Page 22



Attach the assembled face frame to the cabinet with finishing nails. Then, countersink and fill the nail holes with wood putty.

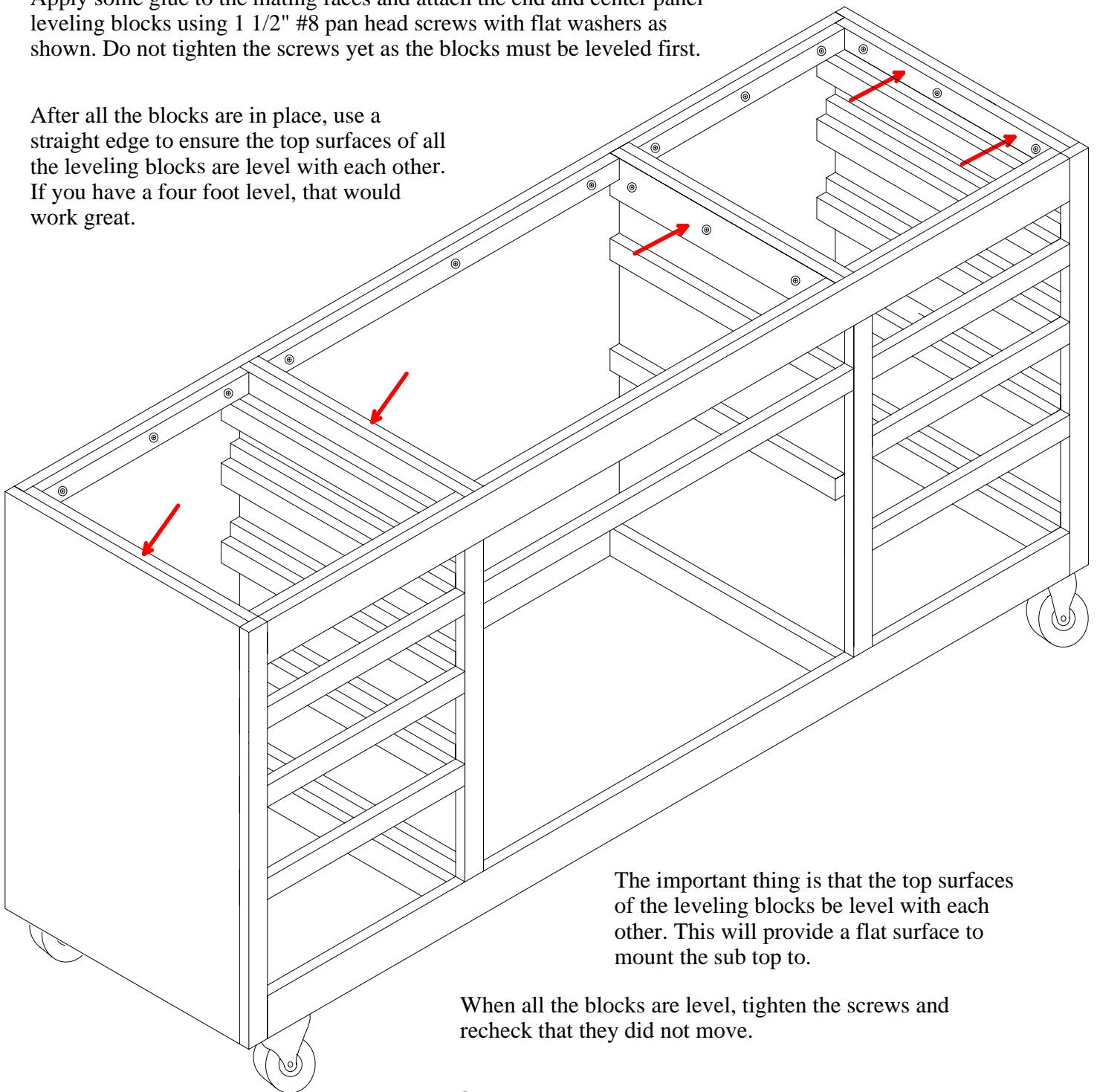
Attach the Leveling Blocks to the End and Center Panels

Page 23

Now, you are ready to attach the leveling blocks. This is the way you ensure that the top is perfectly flat when the workbench is completed. First, drill three 1/4" diameter holes completely through each leveling block, (the two shortest ones only need two holes). The exact location of the holes is not critical. Drill a hole about 2" from each end and one in the middle of each leveling block. To keep the glue from setting before you're finished, it's best to attach the end and center panel leveling blocks first and ensure they are level with each other before attaching the front and rear ones.

Apply some glue to the mating faces and attach the end and center panel leveling blocks using 1 1/2" #8 pan head screws with flat washers as shown. Do not tighten the screws yet as the blocks must be leveled first.

After all the blocks are in place, use a straight edge to ensure the top surfaces of all the leveling blocks are level with each other. If you have a four foot level, that would work great.



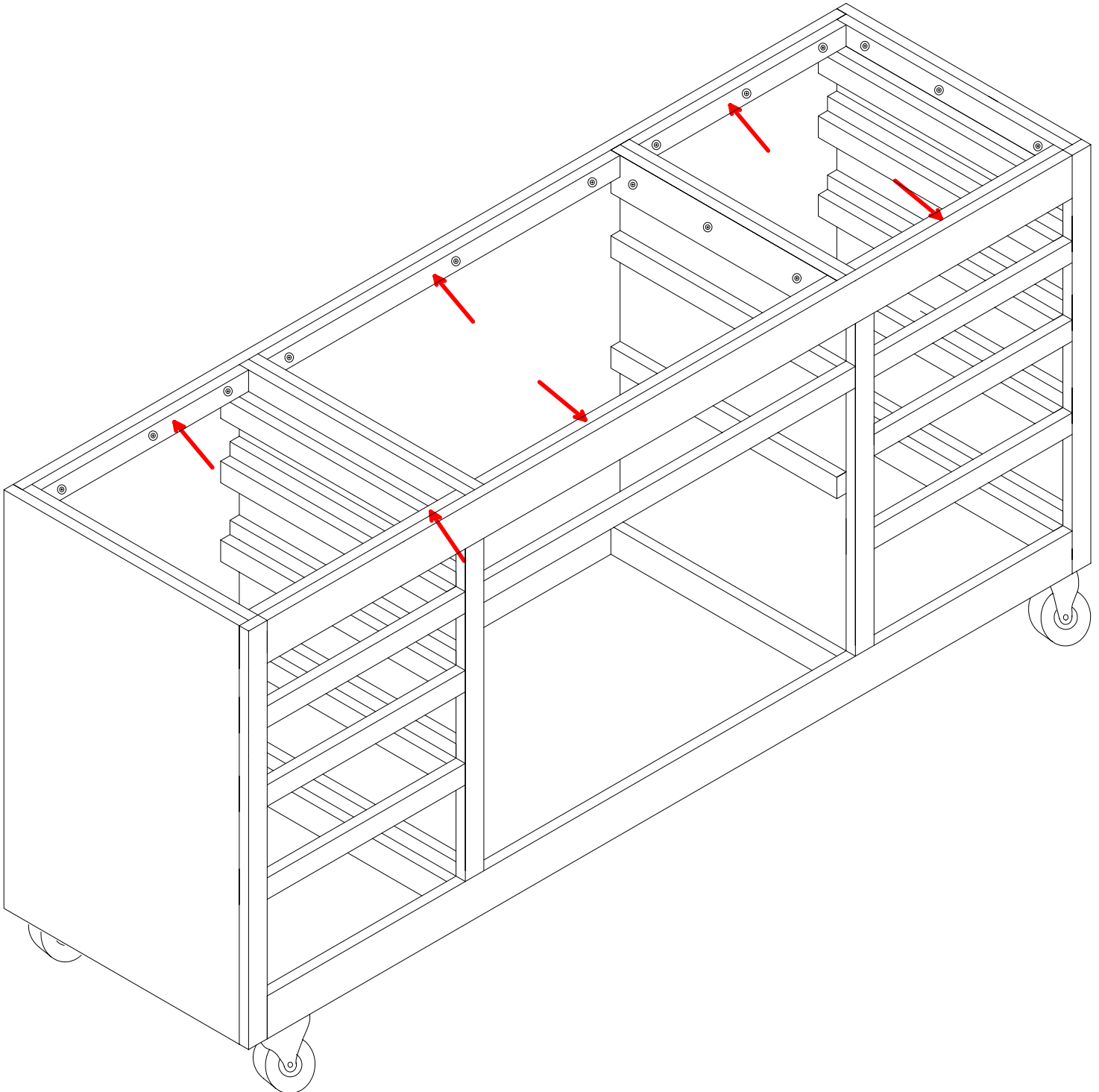
The important thing is that the top surfaces of the leveling blocks be level with each other. This will provide a flat surface to mount the sub top to.

When all the blocks are level, tighten the screws and recheck that they did not move.

Attach the Front & Rear Leveling Blocks

Page 24

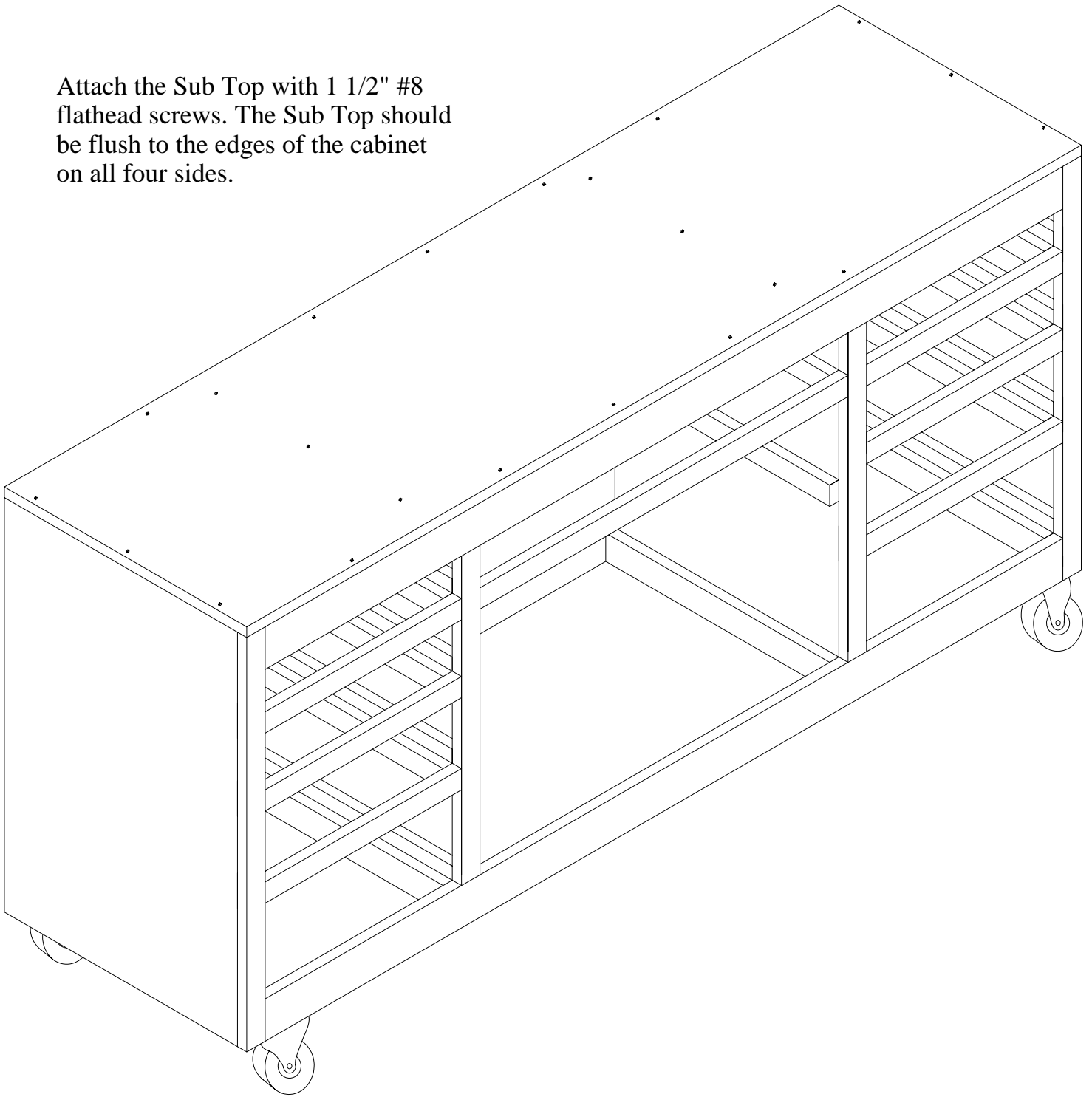
Apply glue to the mating surfaces and attach the front and rear leveling blocks as shown in the diagram. Use your straight edge to ensure the tops are even with the tops of the end and center leveling blocks. Then tighten the screws.



Attach the Sub Top to the Cabinet

Page 25

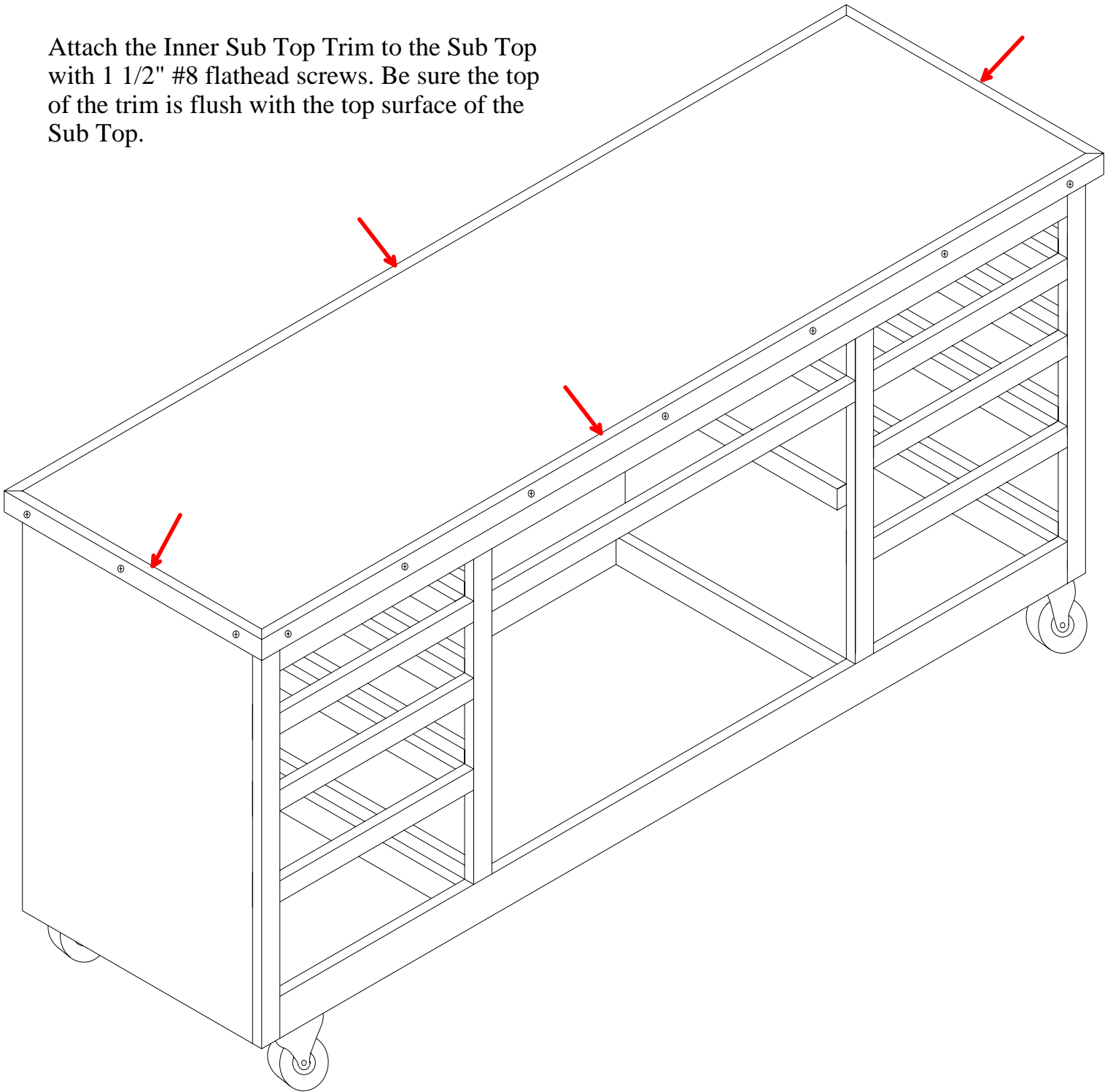
Attach the Sub Top with 1 1/2" #8 flathead screws. The Sub Top should be flush to the edges of the cabinet on all four sides.



Attach the Inner Sub Top Trim

Page 26

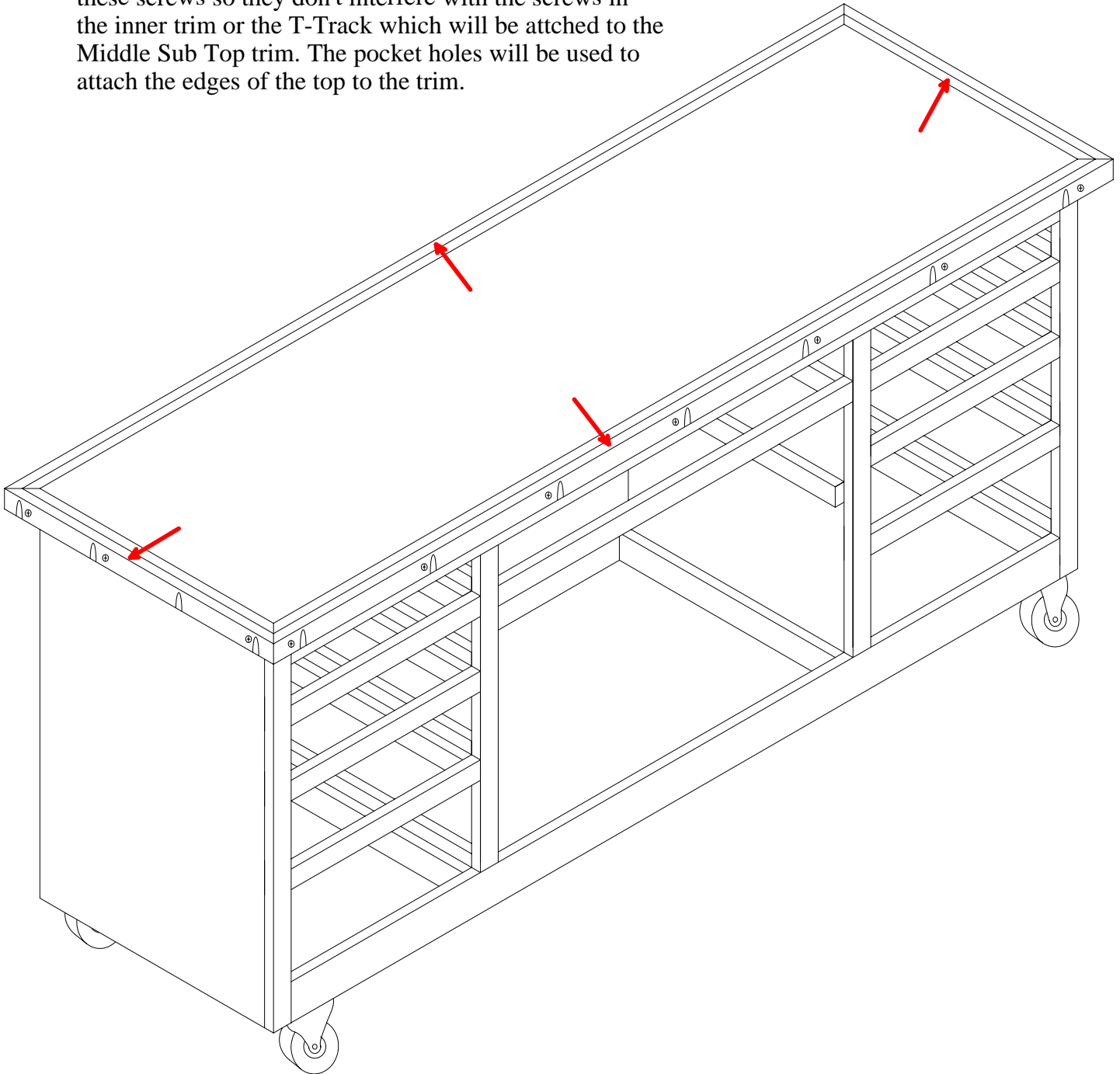
Attach the Inner Sub Top Trim to the Sub Top with 1 1/2" #8 flathead screws. Be sure the top of the trim is flush with the top surface of the Sub Top.



Attach the Middle Trim to the Inner Sub Top Trim

Page 27

Attach the Middle Sub Top Trim to the Inner Sub Top Trim with 1 1/2" #8 flathead screws. Be sure to space these screws so they don't interfere with the screws in the inner trim or the T-Track which will be attached to the Middle Sub Top trim. The pocket holes will be used to attach the edges of the top to the trim.

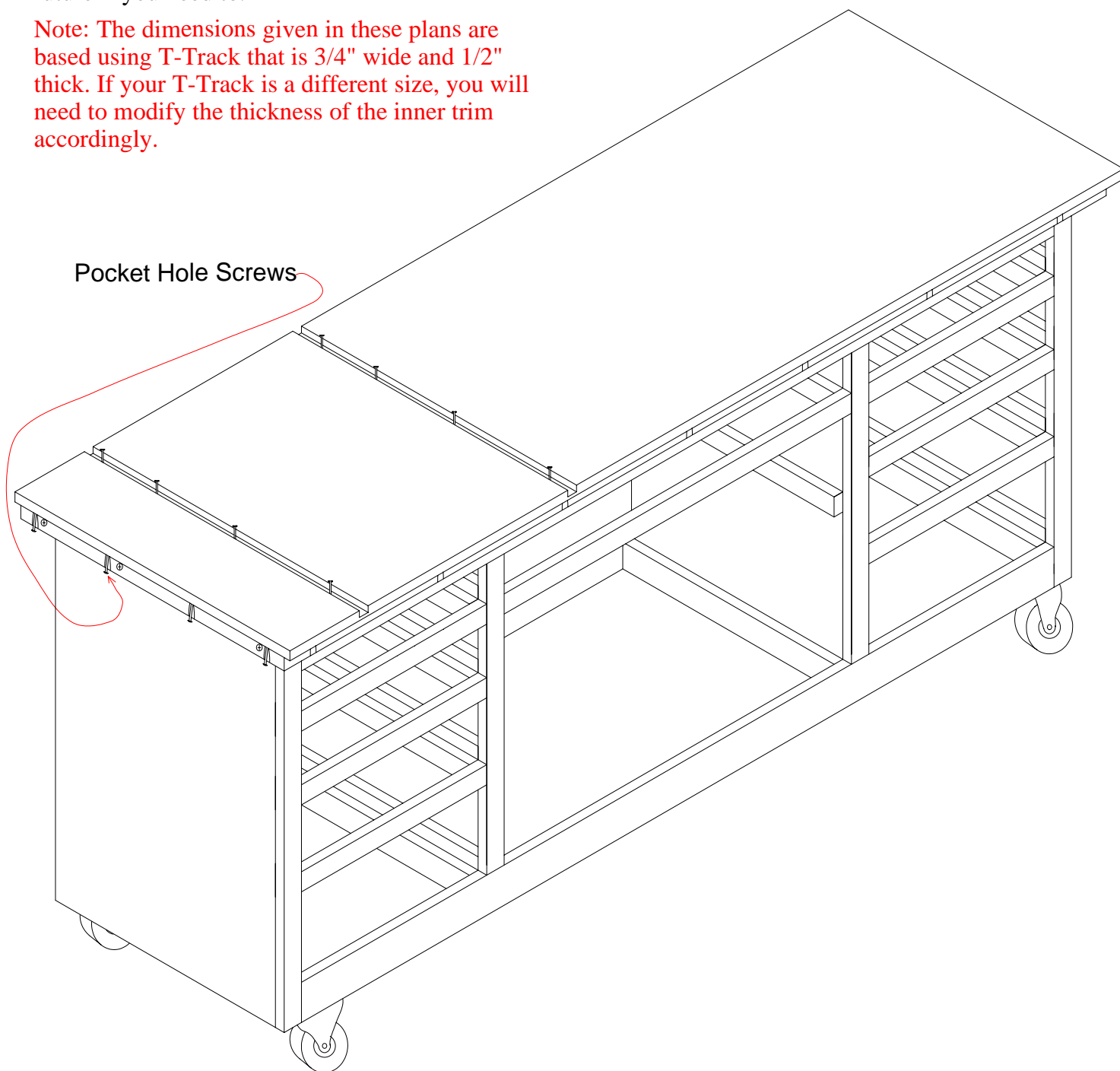


Attach the Top to the Sub Top

Page 28

Attach the Top to the Sub Top with 1" #8 flathead screws through the cutouts for the T-Track. Secure the edges of the top with pocket hole screws through the holes you drilled through the Inner Sub Top Trim. You can secure the right side with screws from the underside of the sub top. If you prefer, you can glue the Top to the Sub Top. However, gluing it will make it much more difficult to replace the top in the future if you need to.

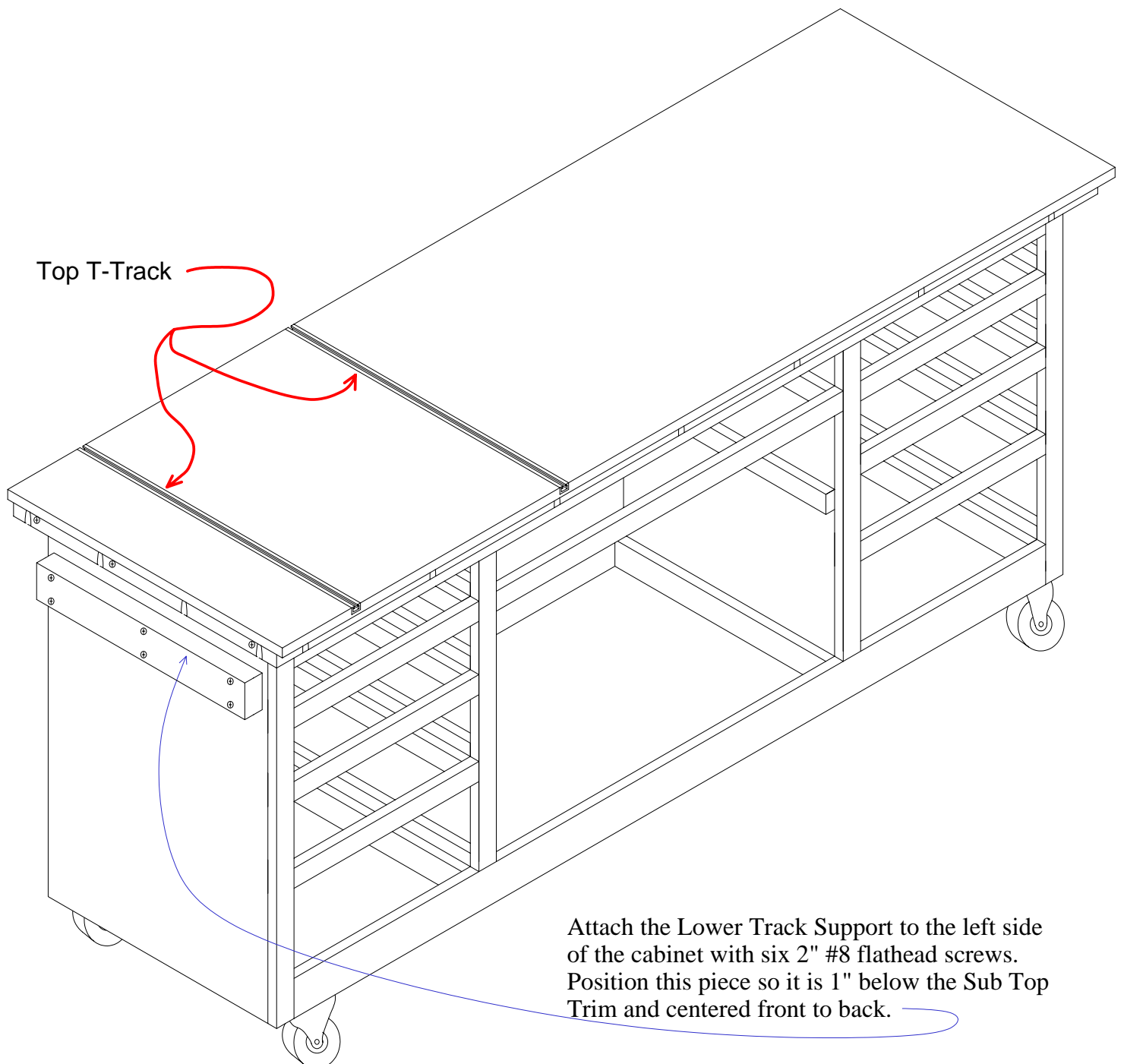
Note: The dimensions given in these plans are based using T-Track that is 3/4" wide and 1/2" thick. If your T-Track is a different size, you will need to modify the thickness of the inner trim accordingly.



Attach the T-Track & Miter track to the Top

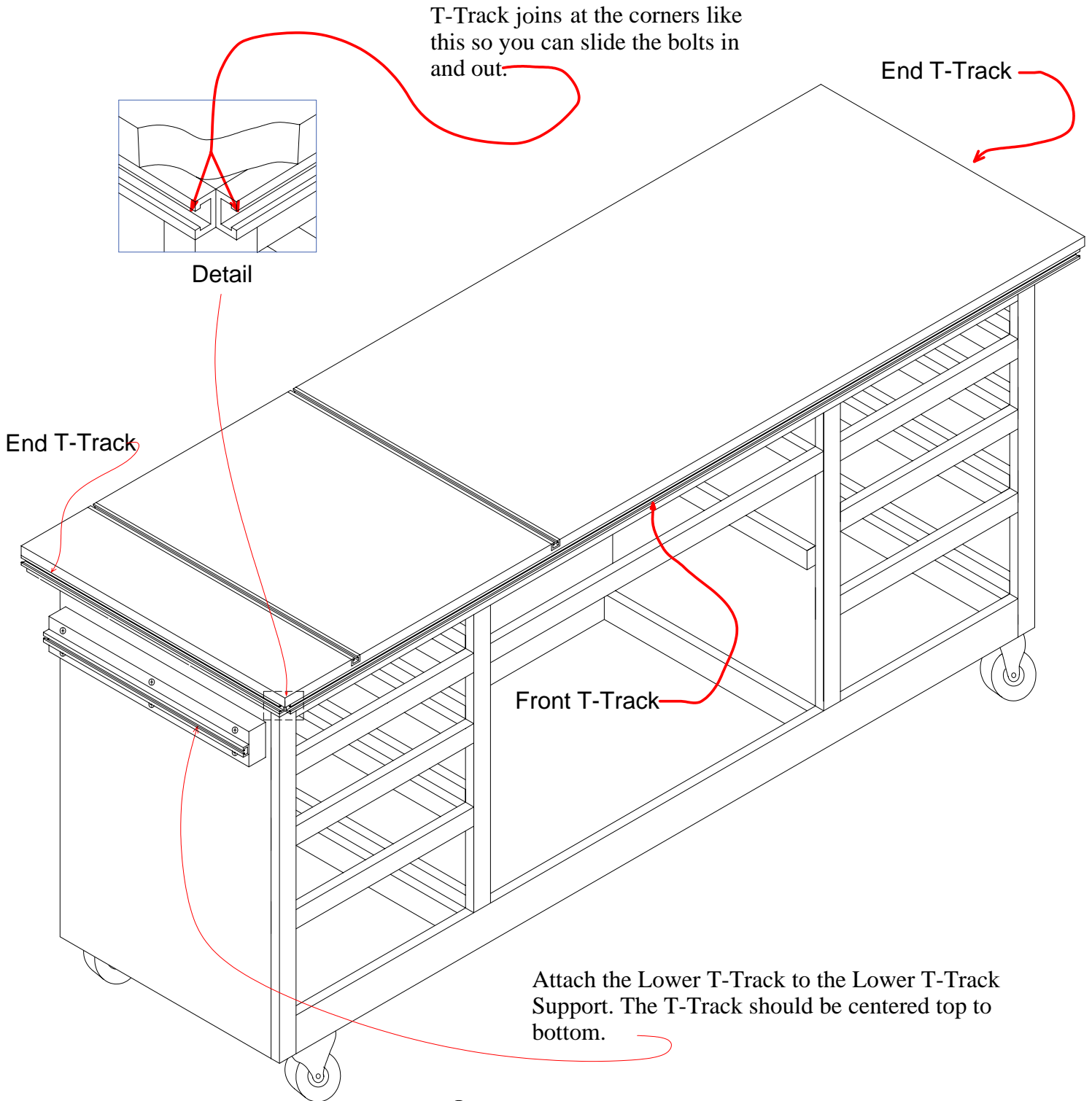
Page 29

Attach the T-Track to the top as shown with 1" #6 screws. Some manufacturers countersink the holes for mounting the track and others do not. From my experience, I prefer flathead screws with countersunk holes. This keeps the screw heads from interfering with the bolts sliding through the track. The track I used for the prototype was designed for pan head screws, so I countersunk them on my drill press.



Attach the T-Track to the Edges of the Front and Ends

Attach the edge T-Track on each end and along the front to the middle Sub Top Trim with 1" #6 screws. Position this T-Track under the bottom surface of the Top as shown in the detail drawing.

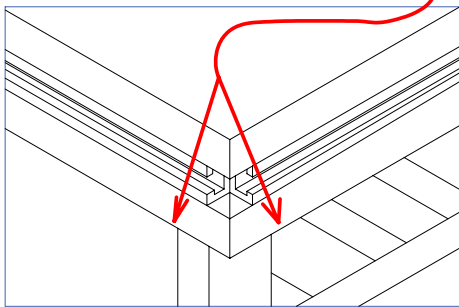


Attach the Lower Front Trim to the Front and Ends

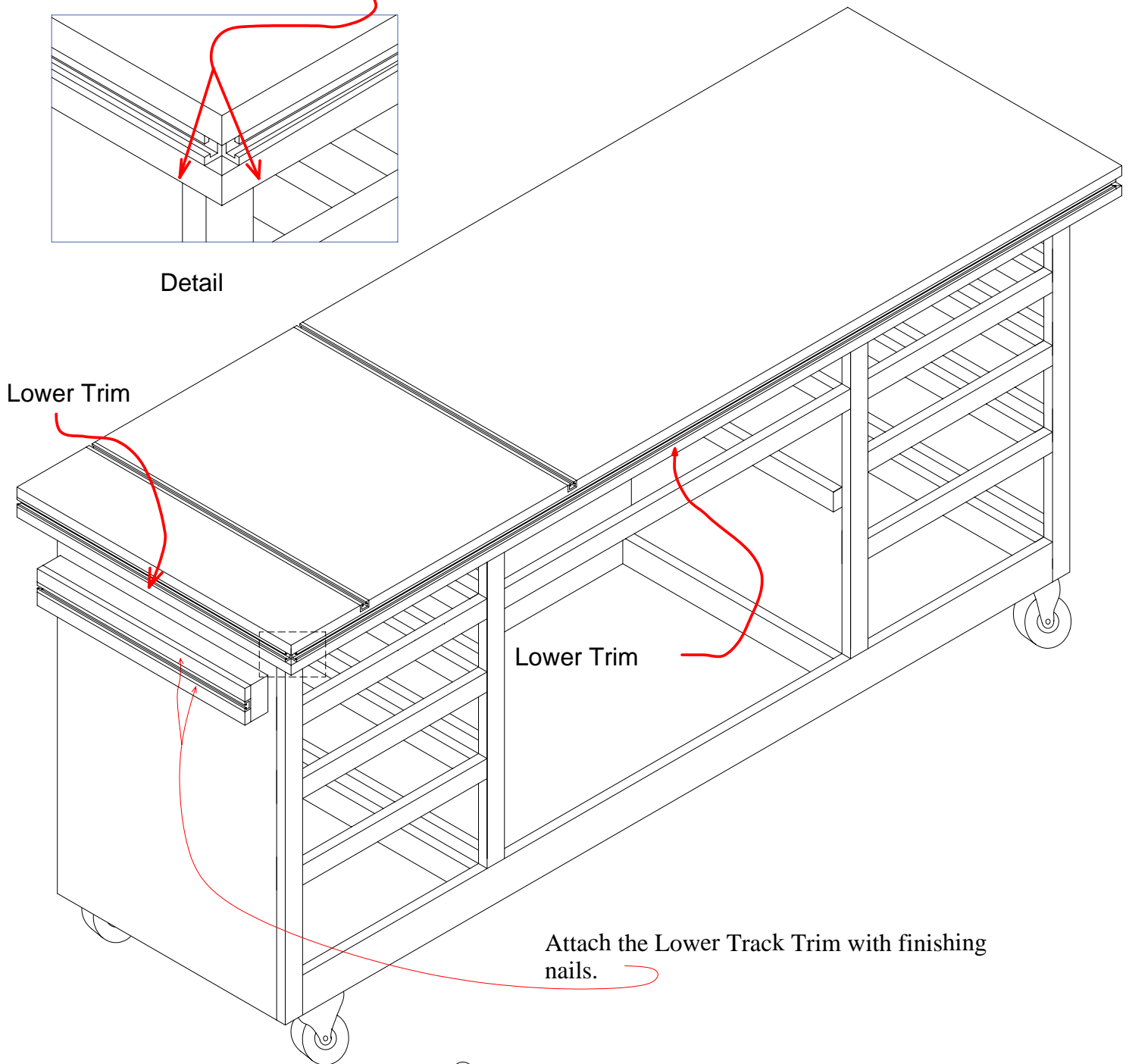
Attach the Lower Top Trim on each end and along the front to the middle Sub Top Trim with 1 1/2" finishing nails.

If you cut the top a little larger than the dimensions called for, you can trim it with your router and a flush trimming bit. Use the Lower Top Trim for the bit bearing to follow.

The Lower Top Trim joins at the corners like this.



Detail

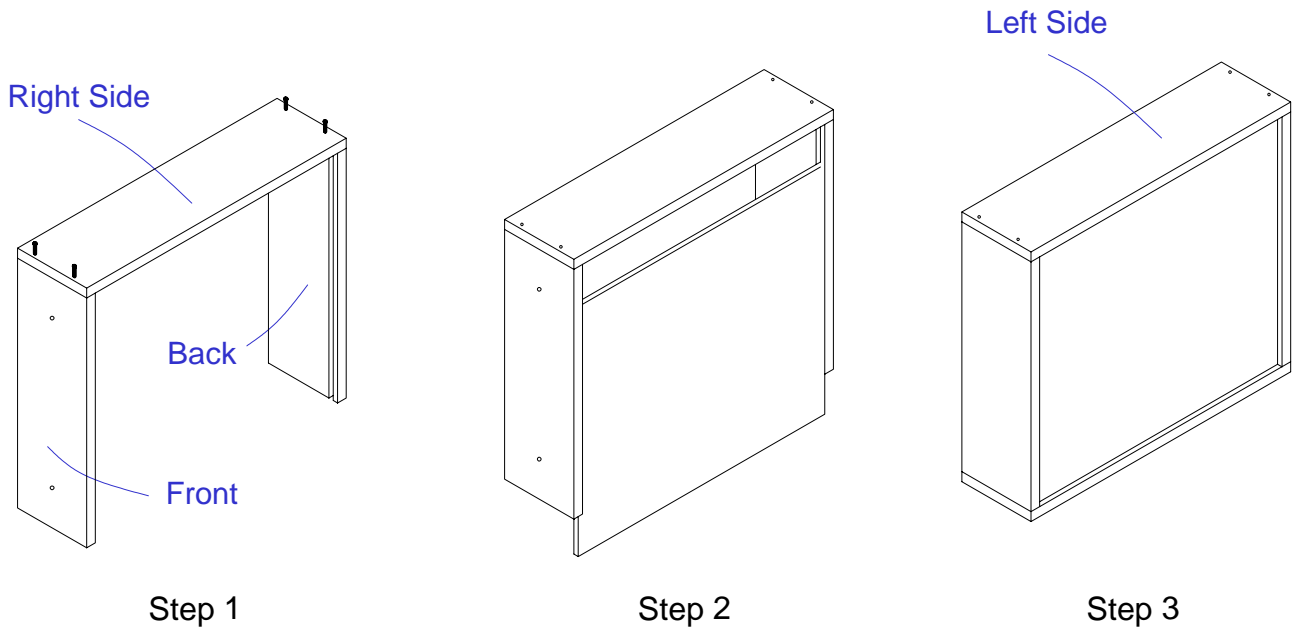


Attach the Lower Track Trim with finishing nails.

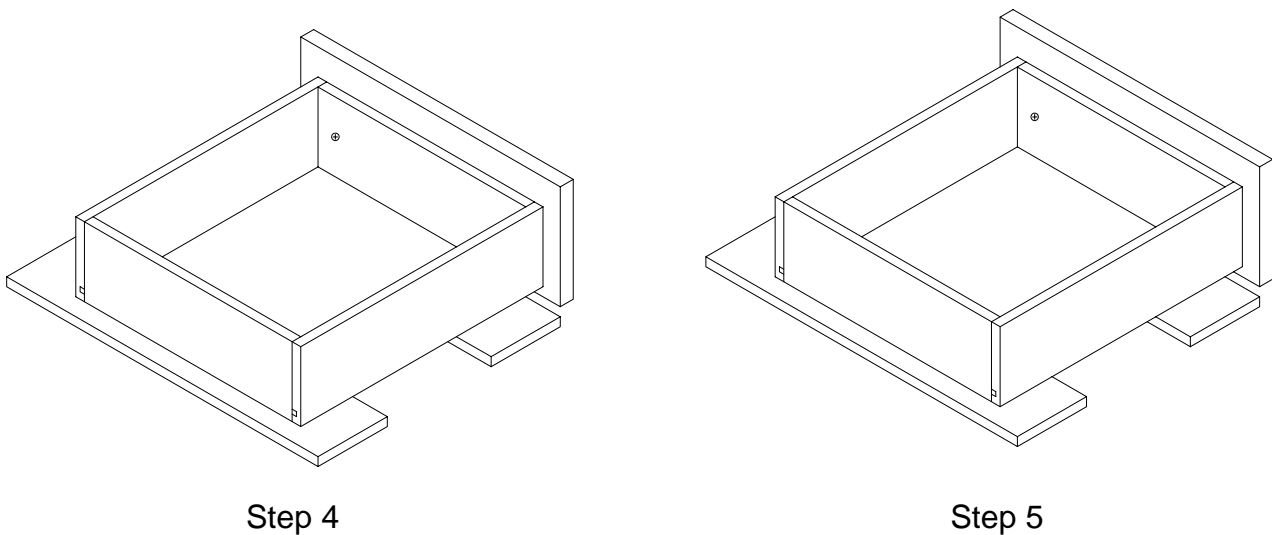
Assemble the Drawers

Page 32

Apply a little glue to the mating surfaces and assemble the drawer boxes.



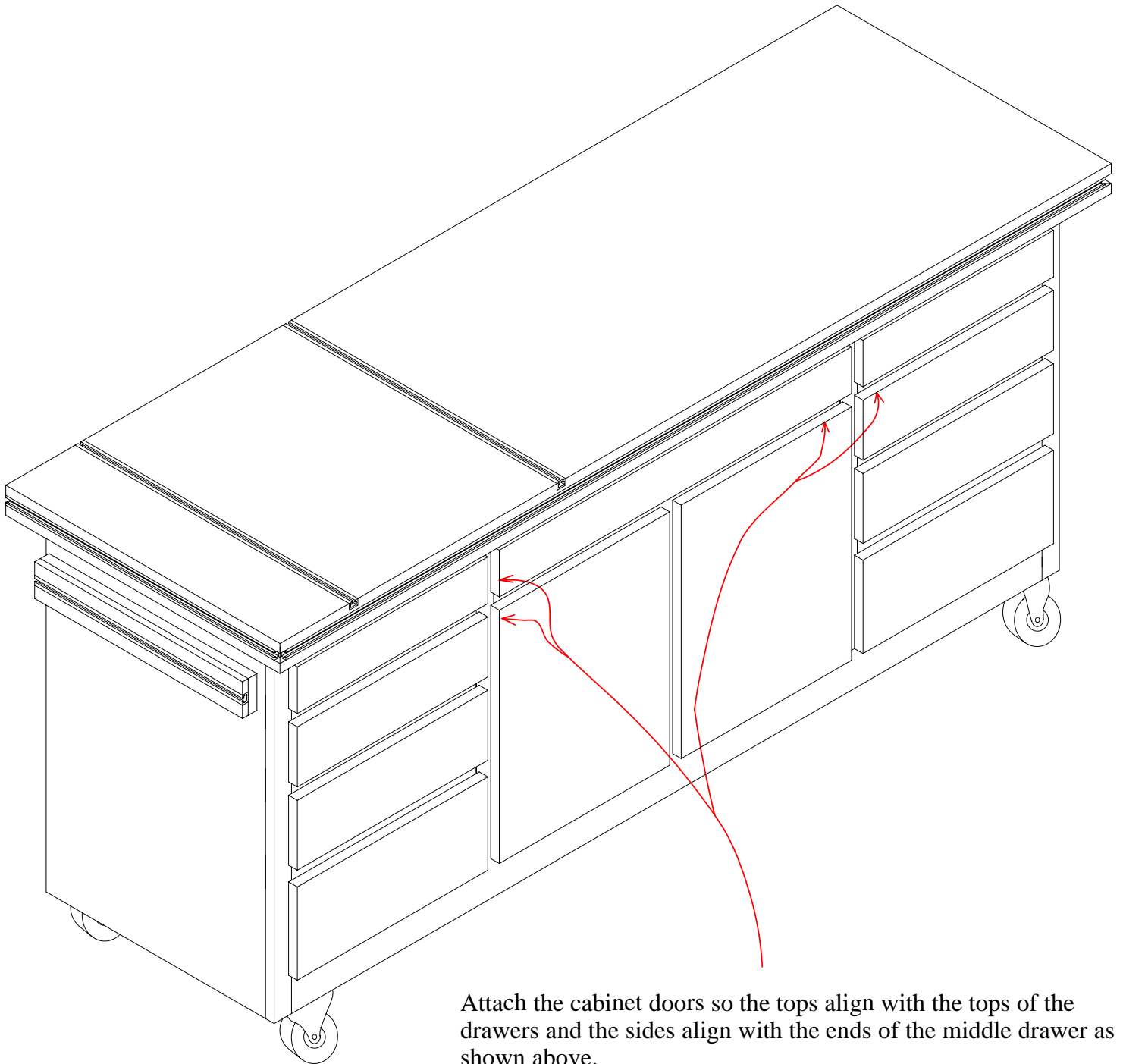
Assemble the front, back, and right side with finishing nails as shown in Step 1. Insert the bottom as shown in Step 2. Attach the left side as shown in Step 3.



Support the drawer boxes with 1/4" thick strips of wood and attach the drawer fronts with 1 1/8" screws as shown. This is necessary because the bottom of the front must be 1/4" below the bottom of the box so it will overlap the rear cabinet trim when installed.

Attach the Cabinet Doors

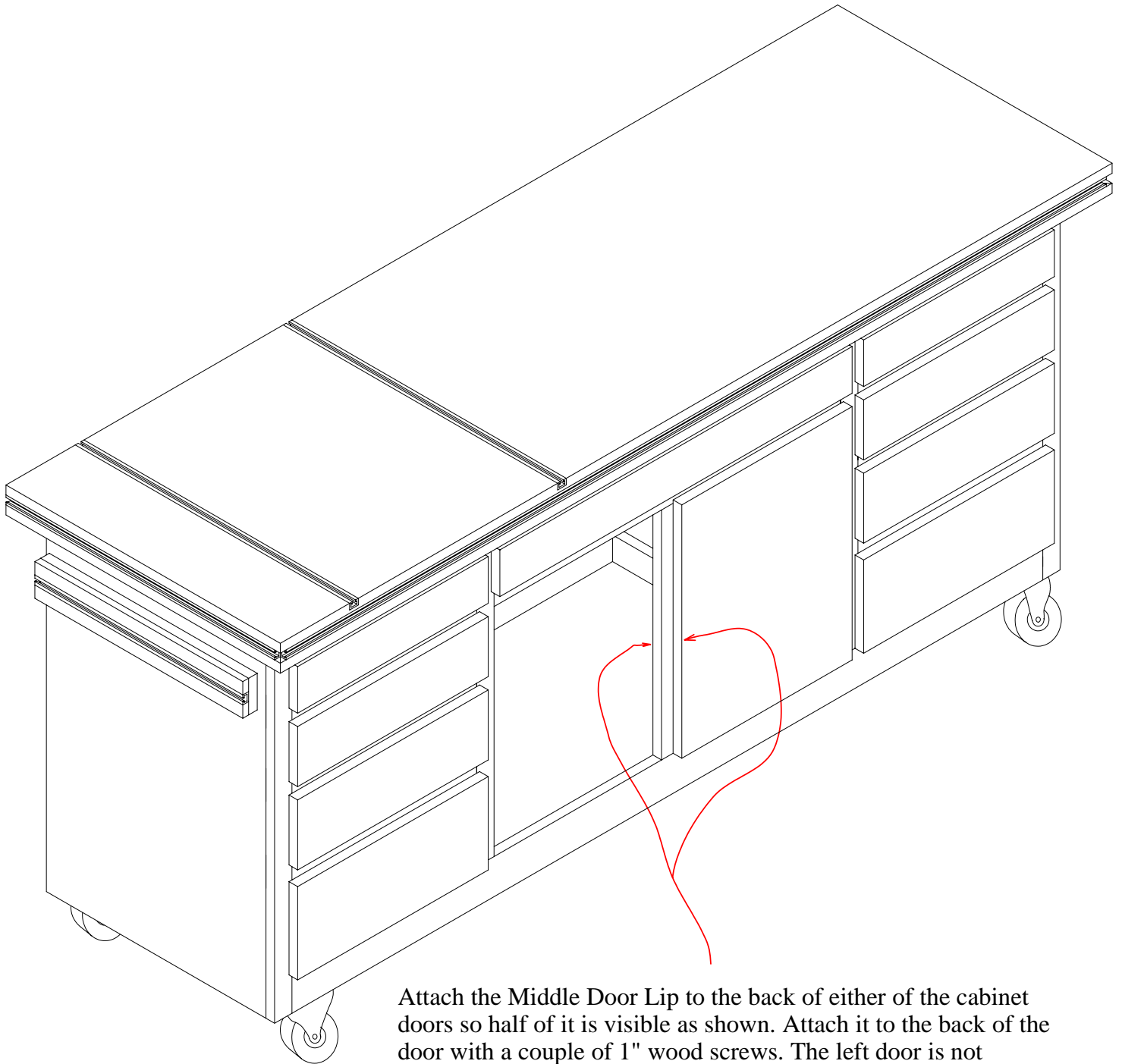
Page 33



Attach the cabinet doors so the tops align with the tops of the drawers and the sides align with the ends of the middle drawer as shown above.

Attach the Middle Door trim

Page 34



Attach the Middle Door Lip to the back of either of the cabinet doors so half of it is visible as shown. Attach it to the back of the door with a couple of 1" wood screws. The left door is not pictured in the drawing for clarity.

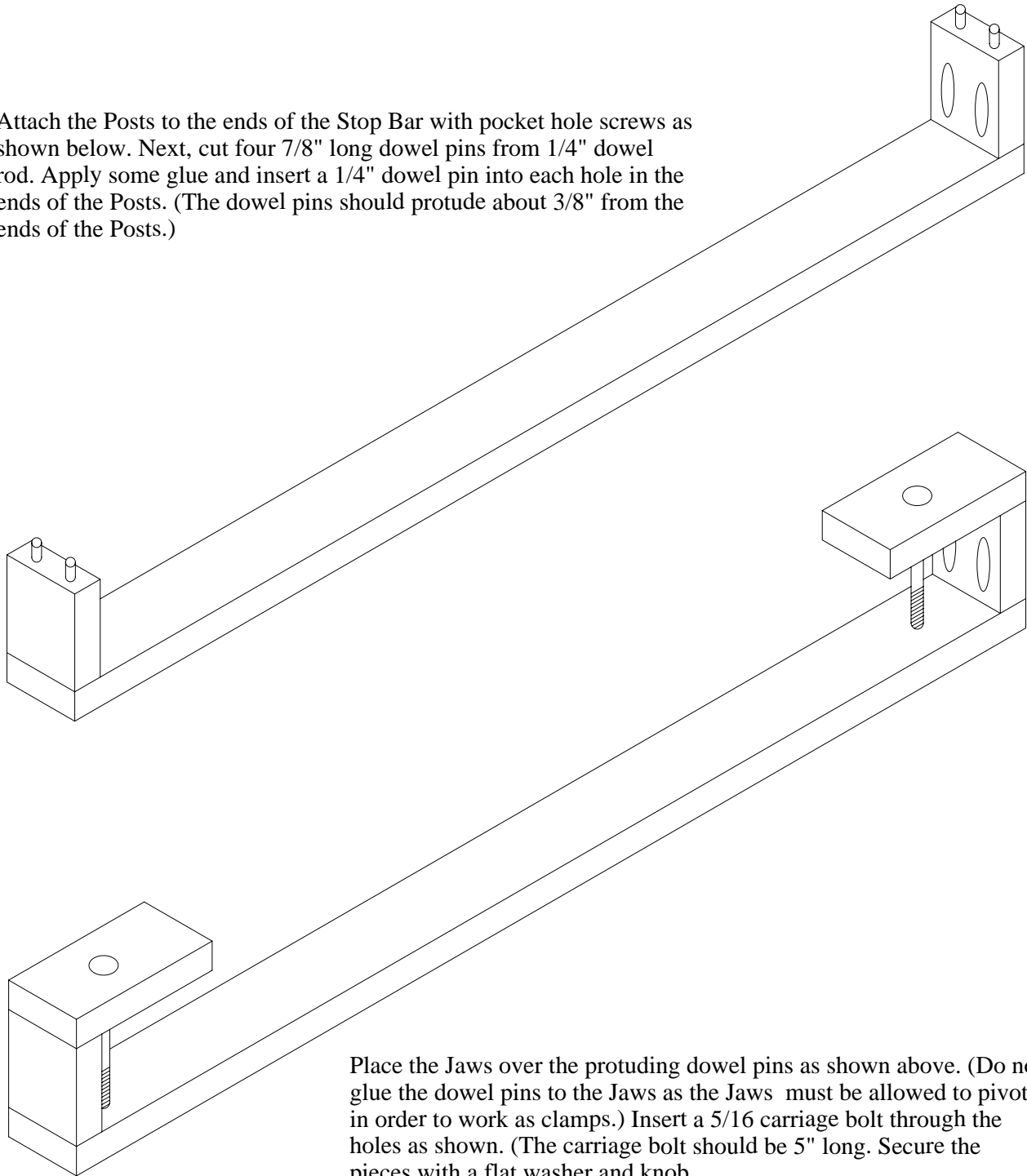
This piece serves as a door lip so there is no visible gap between the doors.

Now, you're ready to attach the Drawer and Door handles and your work bench is finished.

Assemble the EZ Mount Stop

Page 36

Attach the Posts to the ends of the Stop Bar with pocket hole screws as shown below. Next, cut four $\frac{7}{8}$ " long dowel pins from $\frac{1}{4}$ " dowel rod. Apply some glue and insert a $\frac{1}{4}$ " dowel pin into each hole in the ends of the Posts. (The dowel pins should protude about $\frac{3}{8}$ " from the ends of the Posts.)



Place the Jaws over the protuding dowel pins as shown above. (Do not glue the dowel pins to the Jaws as the Jaws must be allowed to pivot in order to work as clamps.) Insert a $\frac{5}{16}$ carriage bolt through the holes as shown. (The carriage bolt should be 5" long. Secure the pieces with a flat washer and knob.

Clamping System Usage

Page 37

The T-Track clamping system provides a flexible way of clamping both large and small work pieces. Most work pieces can be clamped using the two Clamp Jaws and the Rear Stop. The Clamp Jaws are used with the T-Track that runs along the front edge of the workbench. The Rear Stop is used with the T-Track that is embedded in the top surface of the workbench.

For longer workpieces, you can use the the Clamp Jaws with the T-Track on the ends of the workbench. The EZ Mount Stop may be secured anywhere along the workbench top. The simple clamps on each end of the EZ Mount Stop grip the edge of the workbench top as well as C-Clamps. This feature enables you to use the workbench as a large bar clamp for gluing up boards.

You can make the clamping system grip the work piece even tighter by gluing strips of 100 grit sandpaper along the edges that contact the workpiece. The sandpaper requires much less force than the surface of bare wood.

The button arrangement on the Clamp Jaws allows you to filp the Clamp Jaws over for thicker work pieces. The drawings on the next two pages illustrates how the clamps work.

To clamp a work piece, position the workpiece so the edge protudes slightly over the edge of the workbench top as shown. Then, position the Rear Stop against the workpiece and tighten it to T-Track using the knobs. Next, tighten the Clamp Jaws against the workpiece with the knobs and your work piece will be clamped just like with a vice.

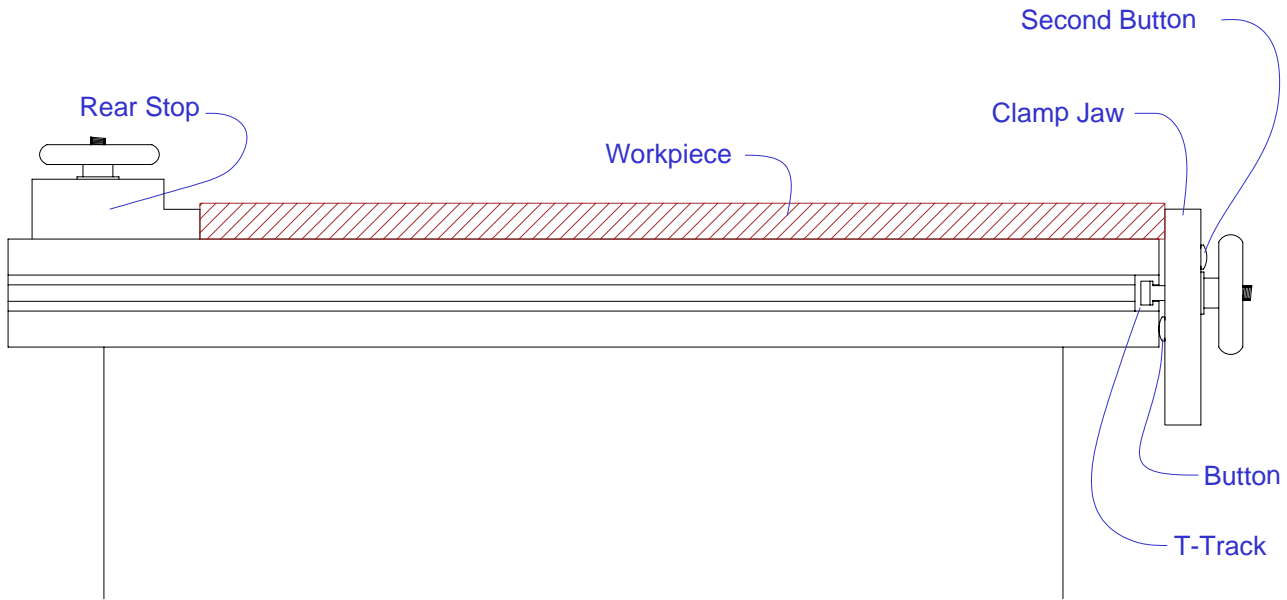
For thinner workpieces, position the Clamp Jaws and Rear Stop as shown. If your workpiece is thinner than 3/4", you can place strips of wood under the work piece so it is slightly higher than the top edges of the Clamp Jaws.

For thicker workpieces, flip the Clamp Jaws so the second button is against the Lower T-Track Trim and reverse the Rear Stop so the thicker edge is against the workpiece.

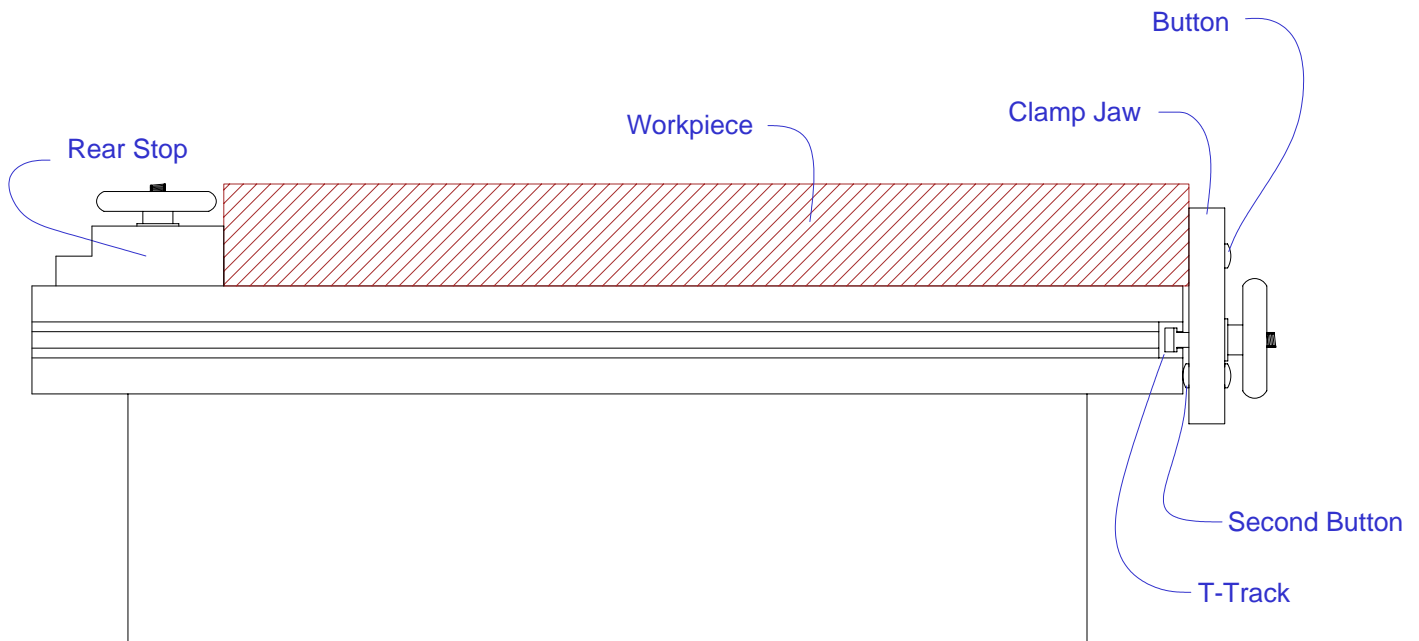
Using the Clamps

Page 38

For thinner workpieces, position the Clamp Jaws and Rear Stop as shown.



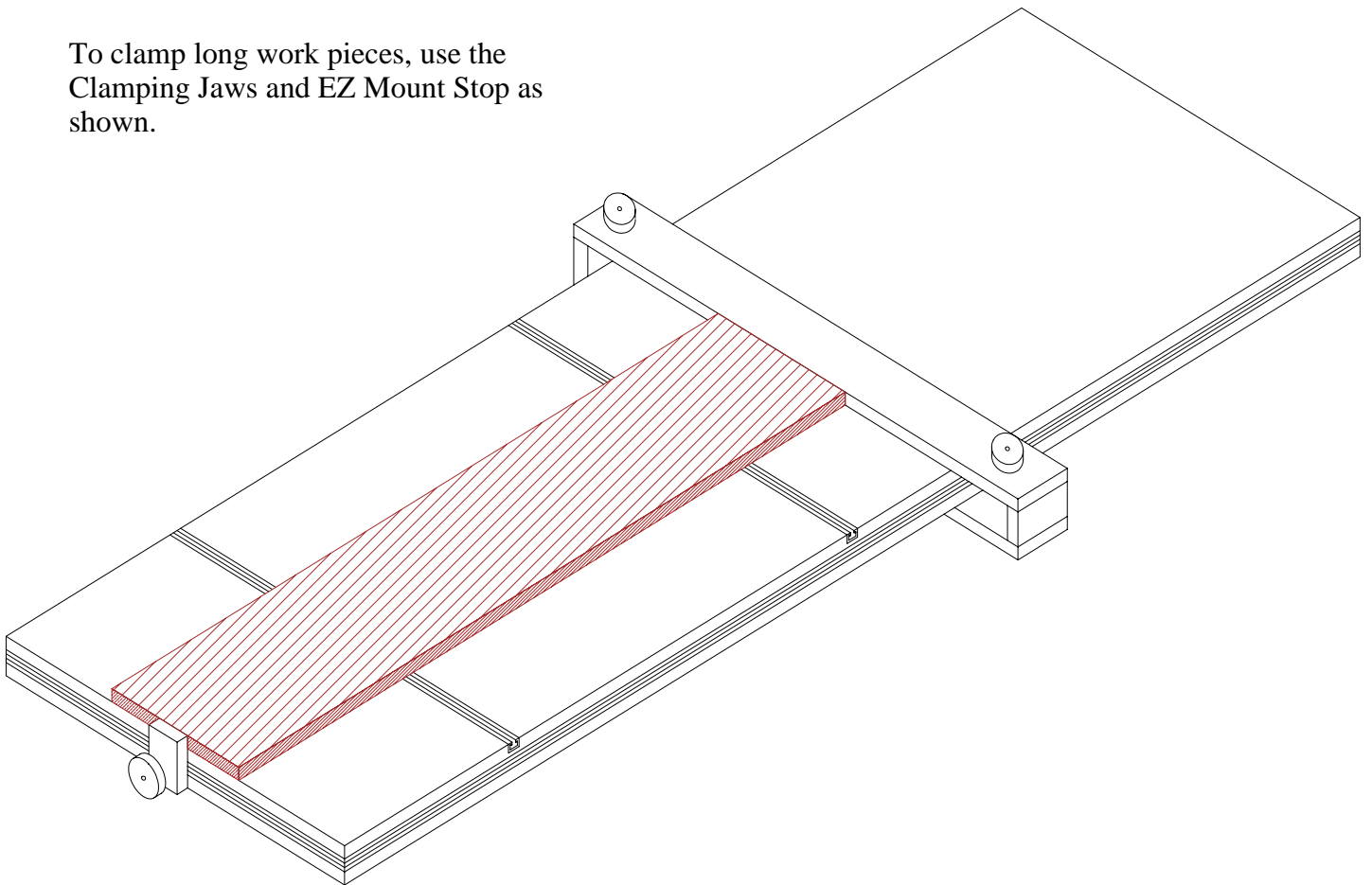
For thicker workpieces, flip the Clamp Jaw so the second button is against the Lower T-Track Trim and reverse the Rear Stop so the thicker edge is against the workpiece.



Clamping Long Workpieces

Page 39

To clamp long work pieces, use the Clamping Jaws and EZ Mount Stop as shown.





Clamping a large Work Piece Vertically



Clamping a Small Work Piece



Clamping a Large Work Piece



Clamping a Work Light



Clamping a Thick Work Piece