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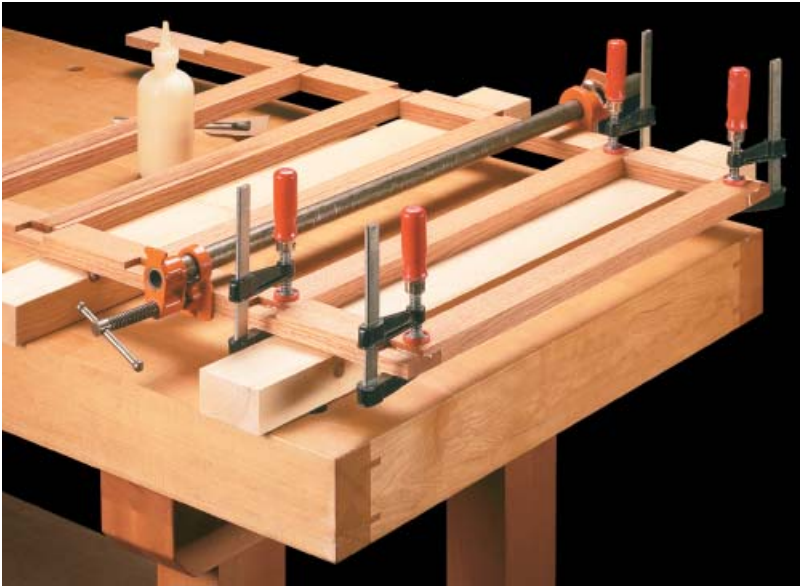
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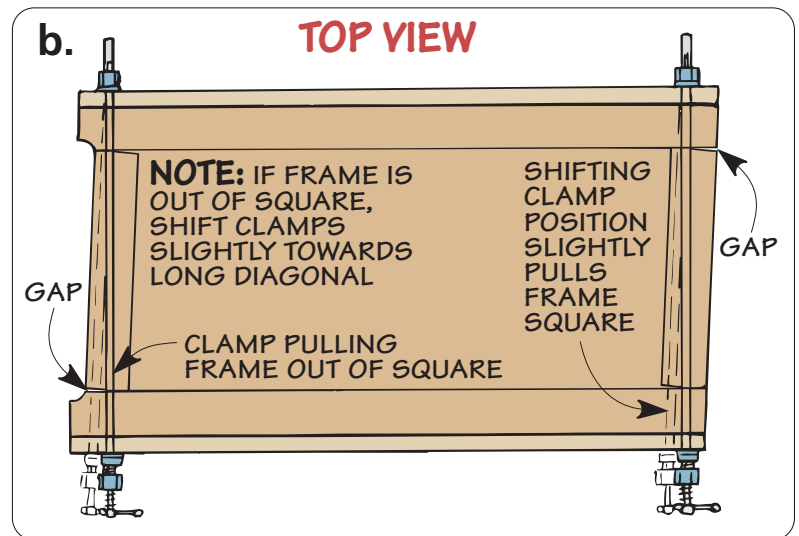
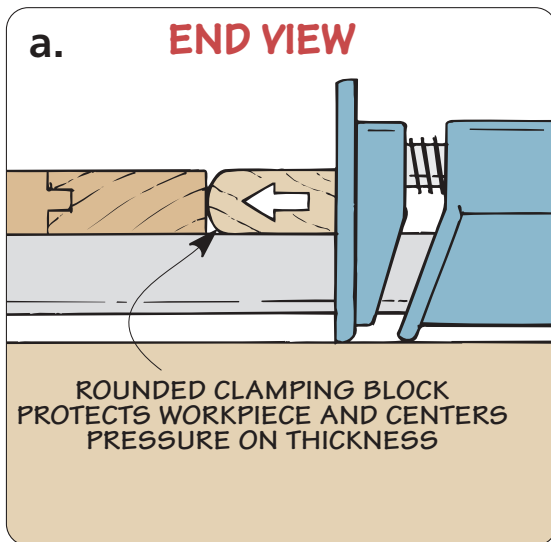
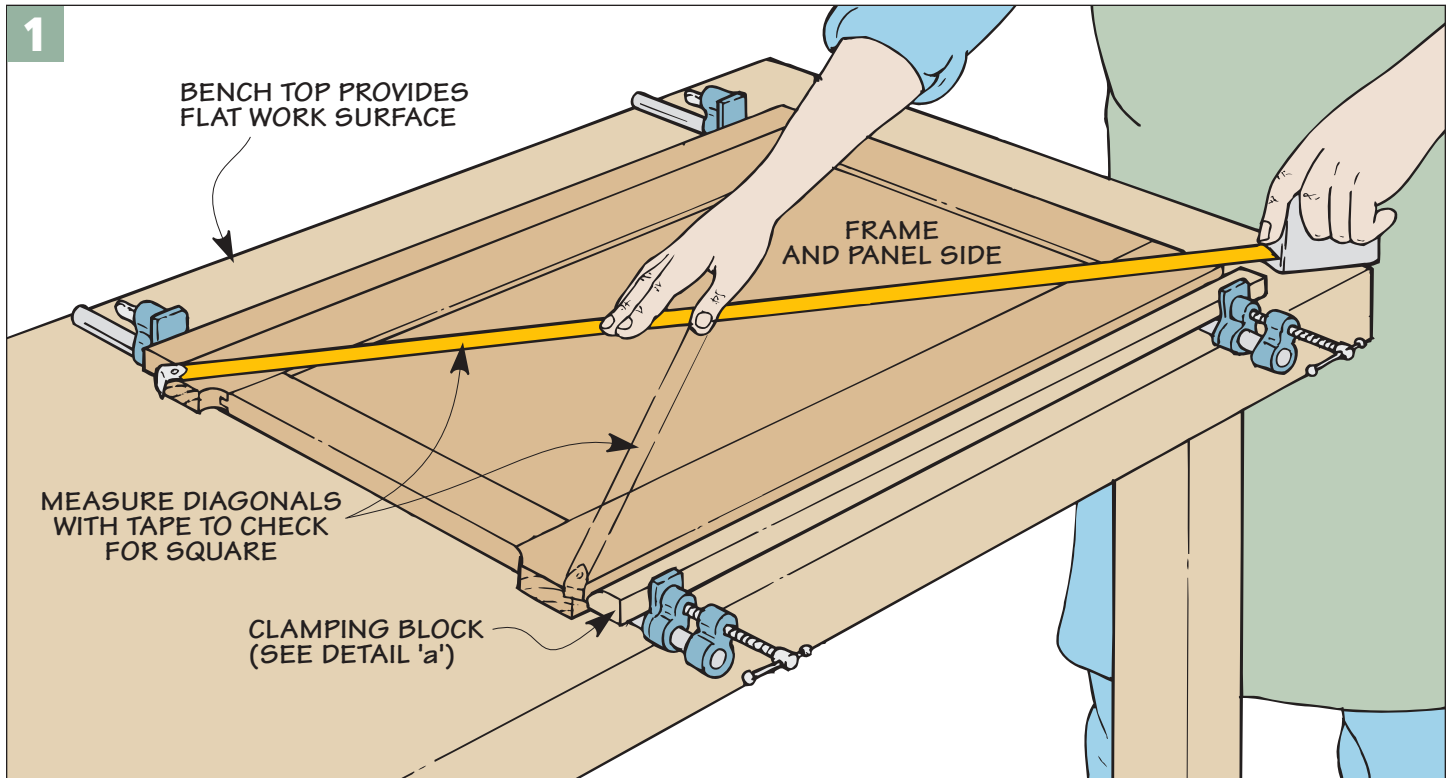
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Tips and Techniques for Carcase Clamping

Whenever I'm ready to assemble a large carcass, it always seems like I don't have enough clamps. Truth is, most projects don't require as many clamps as you might think. In the following article from our editors at *ShopNotes* magazine, we'll show you some tips and tricks for pulling together a large carcass with only a few common clamps from your shop.



Preparation – Before you start rounding up clamps, find a large, *flat* surface to work on. Anything less and you’ll have to work that much harder to get your assembly *flat and square*.

For smaller projects, I like to use my workbench, as you can see in Figure 1. For large or tall projects I lay down a piece of plywood on my shop floor. (I use shims to even out any low spots in the floor.)

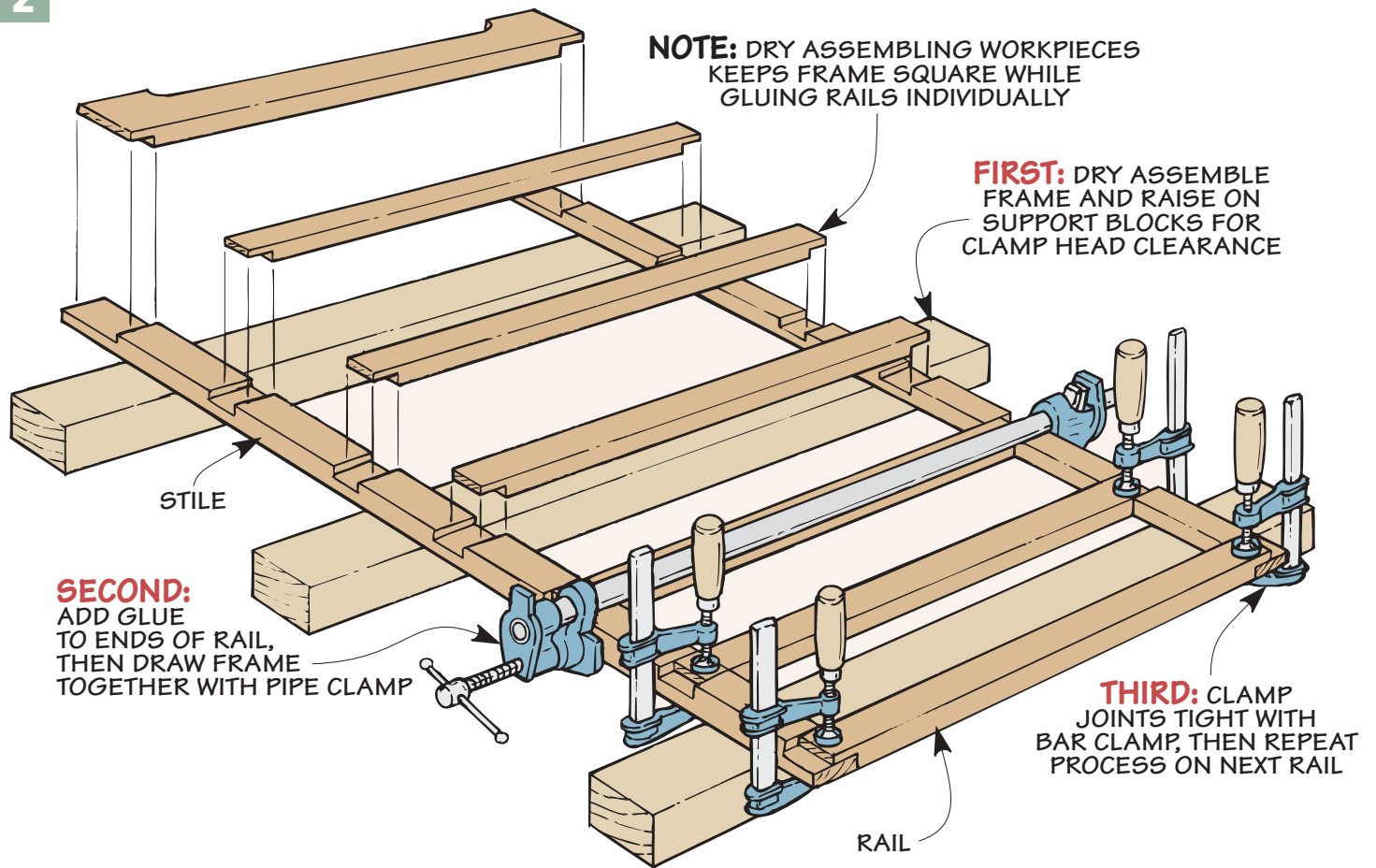
Frame & Panel Assembly – For most frame and panel jobs, two clamps will usually do the trick. Be sure to dry assemble everything to check for problems before you start gluing. This extra step is well worth the investment.

One problem you’ll notice in gluing frame & panels is that the

stiles and rails will start to pop up and buckle as you apply clamping pressure. You can avoid this problem by directing clamp pressure to the center of the workpiece (see Figure 1 a.). Use a clamping block with a rounded edge to center the clamp’s pressure on your workpiece.

Once your clamps are in place, it’s time to check for square. Here’s a quick method for making sure everything is where it should be. Measure diagonally from corner to corner on both sides of the assembly and compare the two measurements (Figure 1).

If both measurements are the same, the assembly is square. If not, slightly shift the location of the clamping pressure (Figure 1b).

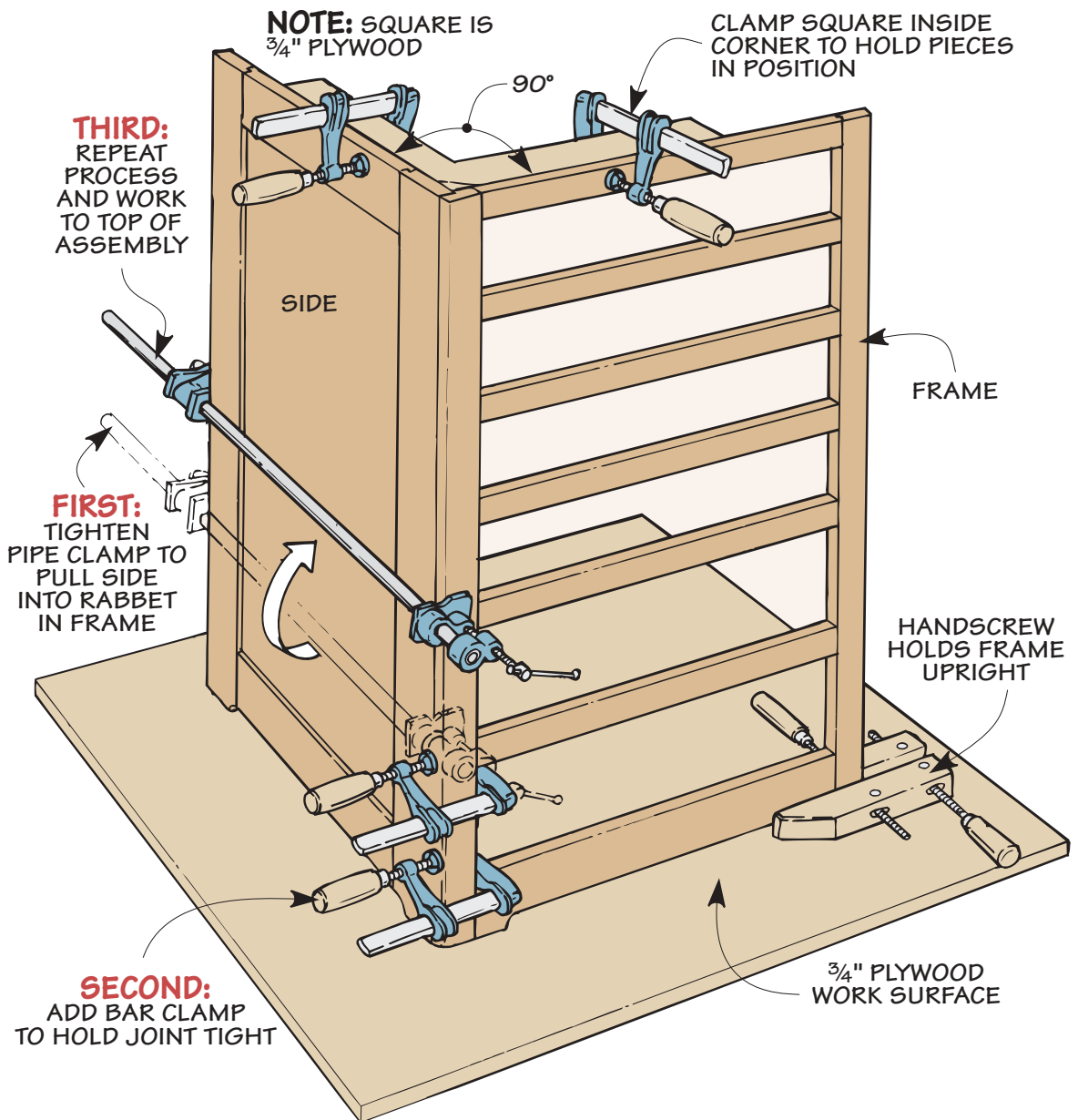


Face Frames – Another type of assembly that is large and often difficult to glue up is a face frame, commonly found in cabinets with multiple drawers. If you try to glue up the entire assembly at once, you can easily run out of both clamps and time. To take the pressure off, I glue only *one* rail at a time.

The key is to *dry* assemble the entire frame before you start

gluing. This keeps everything aligned and square as you clamp and glue one rail at a time.

First place a pipe clamp across the rail and pull the joint tight. Then add a clamp across each lap joint to lock the rail in place. Once the joint is dry, repeat the process down the length of the frame, leap-frogging your clamps as you go.



Bringing It All Together – All that's left now is to start gluing up the assembly. Here again, I leapfrog the clamps from the bottom of the assembly to the top.

When you have only a couple of parts to glue together (like the single side and frame in Figure 3), it's not unusual for the assembly to pinch together and get out of square. To prevent

this problem, I like to clamp a shop-made square (from scrap plywood) to the inside corner of my assembly (see Figure 3). Once it's clamped in place, it squares up the side and front frame *and* holds them in position.

To give myself a "third hand," I often use a handscrew as a wide base to hold one (or more) of the pieces in position, as in Figure 3.

Cleaner Glue-ups. You'll have less glue squeeze out on the inside of the cabinet if you only spread the glue to the corner of the rabbet.

