Woodworking Tips

Knock-Down Sawhorses

A set of sawhorses always comes in handy — until you put them away. They're hard to stack, and they take up valuable space. So I built a pair of sawhorses that "knock down" for storage. Besides saving space, these sawhorses can be assembled (or taken apart) in just a few seconds. If you look at the drawing at right, it's easy to see how this works. Each sawhorse consists of a long stretcher that fits down into a notch in two A-shaped supports. (I used 1x4 pine.)

To prevent the sawhorse from racking, there are four small cleats near each end of the stretcher (two on each side). These cleats are spaced far enough apart to form a channel that fits down over the supports and "locks" the stretcher in place.

Once the cleats are glued and screwed in place, it's just a matter of making the two supports. Each support consists of two angled legs that are held together with four braces.

Both ends of the legs and braces are mitered at a 15° angle. Also, to form the notch that accepts the stretcher, you'll need to trim the top inside corner of each leg at an angle, as shown in the detail above.

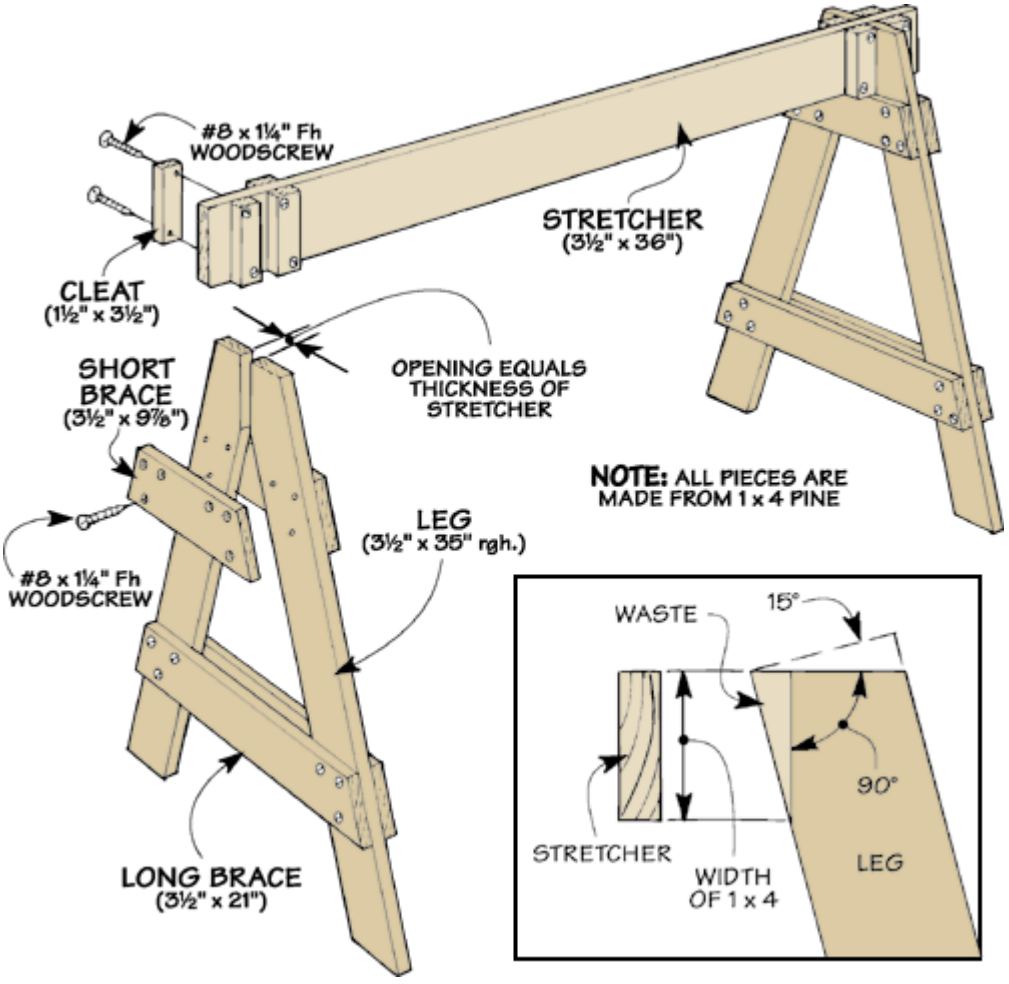


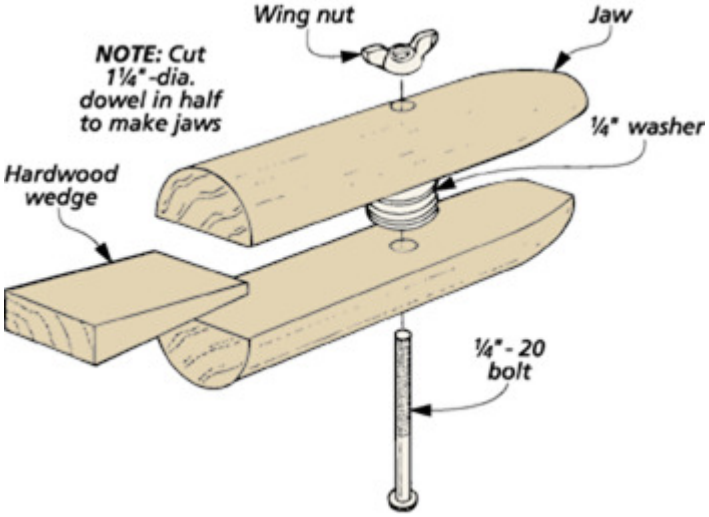
Table Saw Tip

Every time I crosscut a wide workpiece, the head of my miter gauge "clunks" against the front edge of the table saw. Over time, this knocks the miter gauge out of alignment. So I filed a bevel in the table that allows the miter gauge to ride smoothly across.

Small Parts Clamp

Occasionally, I'll need to sand a small wooden part on a drum or disk sander. But holding onto small parts can be a challenge. A pair of pliers could do the job, but I wanted something with a softer grip. So I came up with the small parts clamp shown in the photo.

The jaws of the champ are made from a short section of 1 1/4" dowel. The dowel is spilt down the centre and then the two halves are reassembled with a bolt, a wing nut and a few washers that space the "jaws" apart. A wedge inserted at the back of the clamp forces the jaws together.



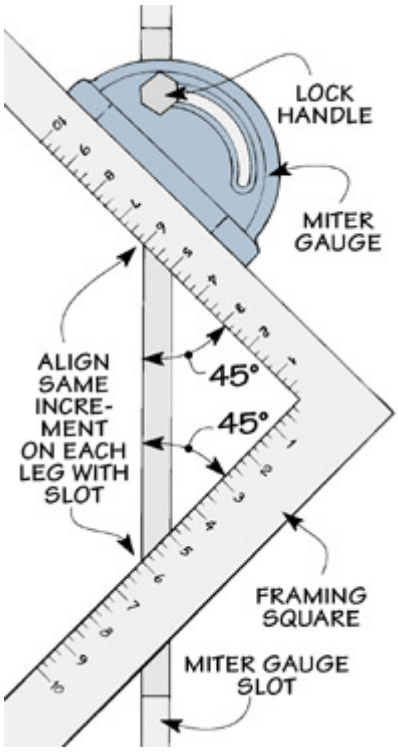
Start by drilling the bolt hole through the dowel section and then tapering the jaw end with a sander. After cutting the dowel lengthwise on the band saw, you can assemble the clamp as shown in the drawing.

The final part is the small, hardwood wedge used to close the jaws. When you force the wedge in from the back of the clamp, the jaws will bite down firmly on whatever is between them

Miter Gauge Setup

Here's a quick way to set the miter gauge on your table saw to 45°. All it takes is a framing square and a little geometry. The idea is to form a right isosceles triangle using the framing square and miter gauge slot. (An isosceles triangle has two equal sides.)

Start by setting the framing square on top of the table saw. Now align the same increment on each leg of the square with the edge of the miter gauge slot. (The 6" increment is shown in the drawing at right.)



Next loosen the lock knob on the miter gauge and gently snug the head up against the framing square as shown in the photo. The miter gauge is now set at exactly 45°. After tightening the lock handle, you're ready to cut a perfect miter.

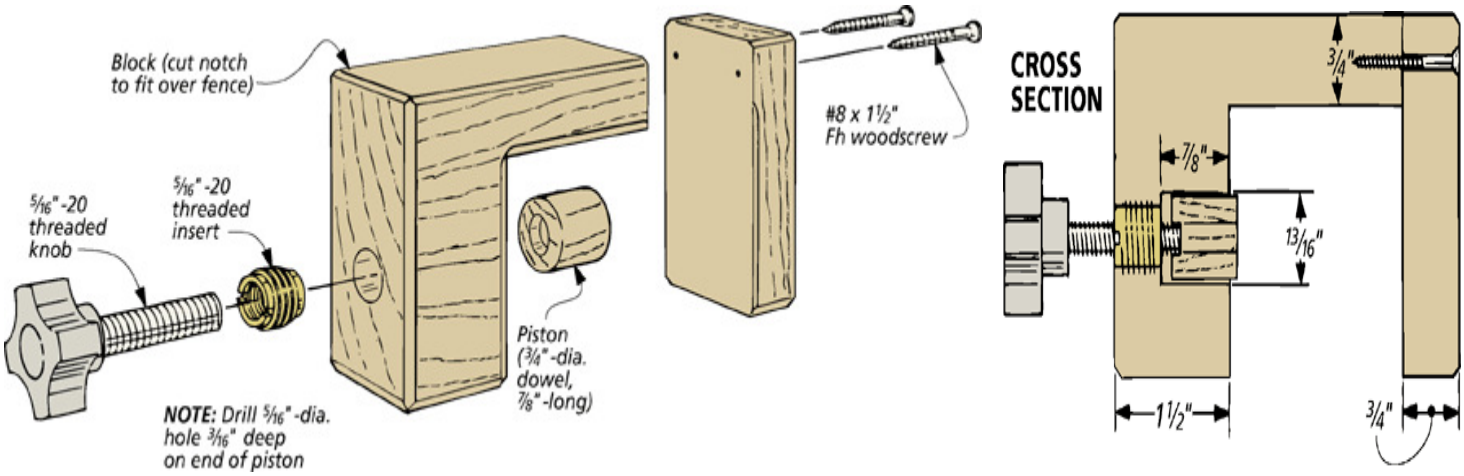
For accurate results, the saw blade must be parallel to the miter gauge slot. Also, check to make sure your framing square is truly square

Piston Stop Block

I built an adjustable fence for my drill press and it was a great addition. Then to make it even more versatile, I added this "piston" stop block.

As you can see in the drawings below, the body of the stop block is made from two pieces of wood shaped to fit over the fence and then screwed together. The "piston", used to tighten the stop block down on the fence, is a short piece of 3/4"-dia. dowel. The dowel fits into a hole that's pre-drilled into the inside face of the stop block. The final part is a star knob with a short section of threaded rod attached that runs through the insert and into the "piston." This allows the stop block to be positioned and tightened down quickly and easily stop block. And then a threaded insert is installed on the outside face.

The final part is a star knob with a short section of threaded rod attached that runs through the insert and into the "piston." This allows the stop block to be positioned and tightened down quickly and easily.



Workbench Height

Does your back start to ache after you've been working at your workbench for a while? Have you ever tried to hand plane a board and decided it was just too much work?

The height of the work surface of your workbench can make a difference. It should be the right height to fit you and the way you work. If you already have a workbench, you can use these guidelines to modify your bench height to make it more comfortable. If you're building a new bench, use these guidelines to determine how high to make it.

On most benches, the working surface is somewhere between 33" and 36" high. If you're average height (between 5'9" and 6'0"), that's usually a comfortable height. But even a change of 1" up or down can make a big difference in how easy it is to work at the bench.

We've used a lot of methods to determine the best height for a bench. But one simple method seems to give the best results. Just measure the distance from the floor to the crease on the inside of your wrist. When I did this, the measurement was 34". So that's the height I used on my bench.

Increase or decrease the length of the legs on your workbench to adjust the height of the work surface to match your wrist crease measurement. If you're 5'10" or taller, you may find a wrist crease measurement of 35" to 37". This may seem too high for a bench -- especially considering the old standards. But those standards were developed and valid when the general population was shorter than it is today.