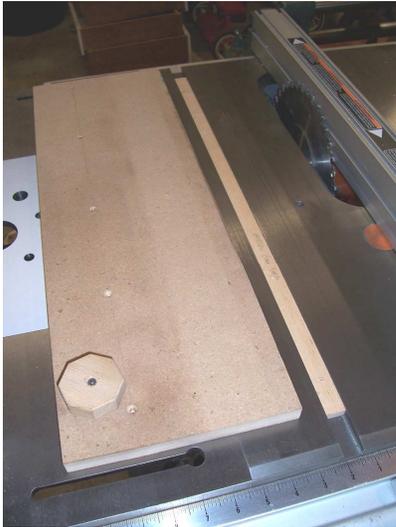


Making Square Sticks Using A Tablesaw:

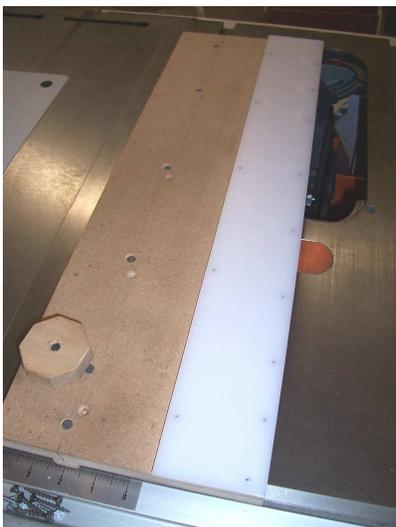
Below are some photos I took while remodeling the jig I use to make square sticks.



1. Begin with a plate (plywood or MDF) wide enough to reach between the saw blade and one of the miter slots – this will be the sled. Also, make a runner for the miter slot, which fits snug, but not so tight that it is hard to slide back and forth in the slot. I have a knob on the plate to help pull it back after the cut is made (later).



2. Slide the MDF over until it is beyond the saw blade about 1/8" and screw it to the runner. Make sure the sled extends past the blade all the way along the length of the MDF (use the saw fence for alignment). Now the sled will move back and forth past the blade in a straight line with the miter slot. This will make a straight cut as long as the miter slot and the blade are parallel.



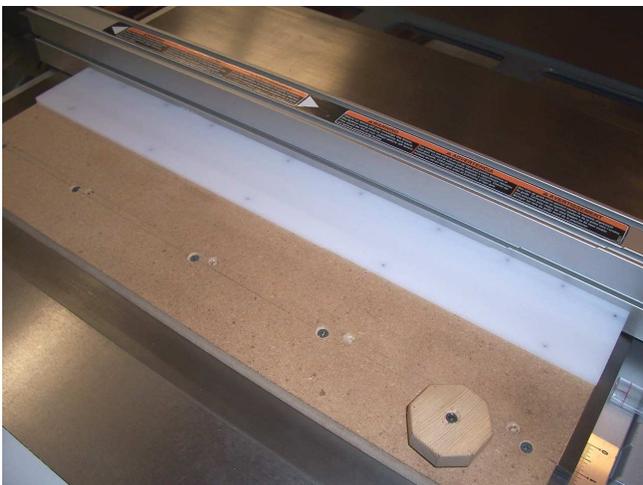
3. During the re-model of the jig, I decided to make the base out of UHMW plastic, which the sticks sit on. Woodworkers use the term “backing up the cut” to mean there is something behind the wood as the blade exits the piece of wood. This prevents chips and tearout, leaving a smoother exit on the wood.



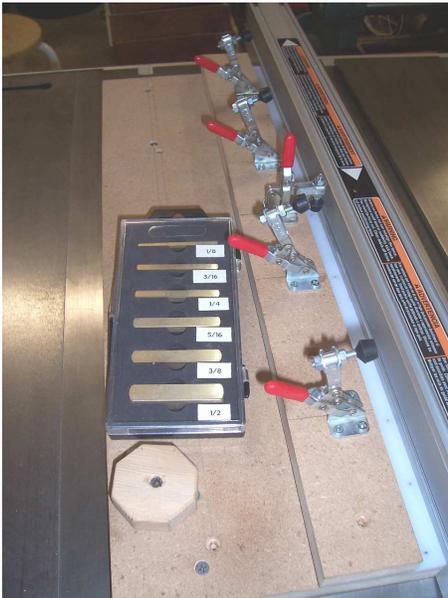
4. Next, check to make sure the blade is exactly square to the table. Note: if you use a blade stiffener on the jig side of the blade, have it in place before the next step.



5. Now, cut off the extra 1/8" of the jig that extended over the blade from step 2. This new edge of the sled will always be the location of the very edge of the saw blade.



6. Move the rip fence back to the newly cut edge of the sled (with the blade down in the saw). This will begin the steps for installation of the fence on the sled.



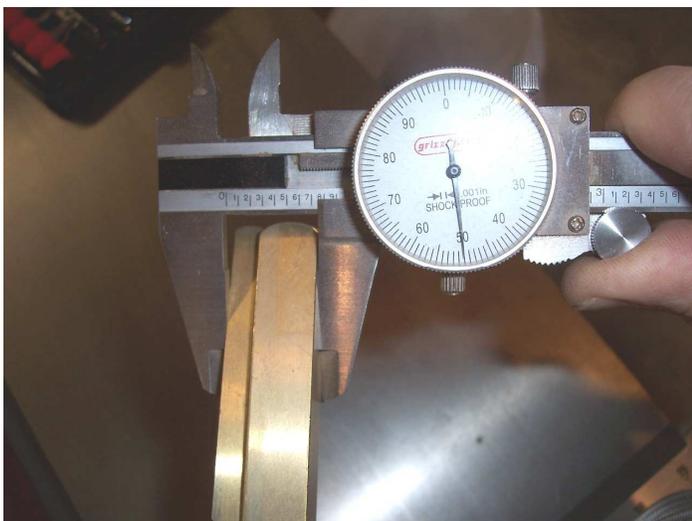
7. Since this is a re-model, I already have the fence. You'll need a straight piece of MDF (or other) with a square corner. Put the square corner down, and next to the edge of the sled. I also use lots of toggle hold down clamps. These hold the sticks in place, and save your fingers for more important things.

To quote my brother: "Fingers take a lifetime to grow; forget about safety, and there they go!"



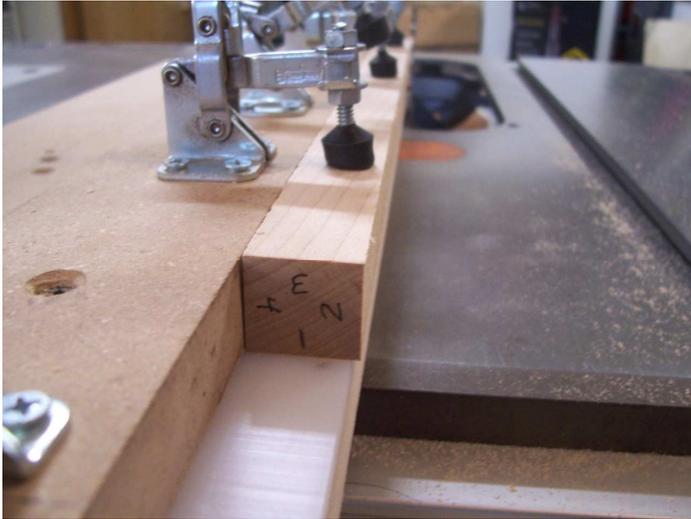
8. Note the box of brass set-up rods in the previous photo. I use these to get an accurate standoff between the edge of the jig and the edge of the fence. I have my stock standardized at $\frac{3}{4}$ ", so I chose the $\frac{1}{2}$ " and $\frac{1}{4}$ " bars. Also, there is an aluminum shim between the jig fence (MDF) and the set-up blocks. This will be more clear later.

Pinch the shim and the $\frac{3}{4}$ " spacer between the jig fence and the tablesaw fence, then screw the jig fence to the sled.



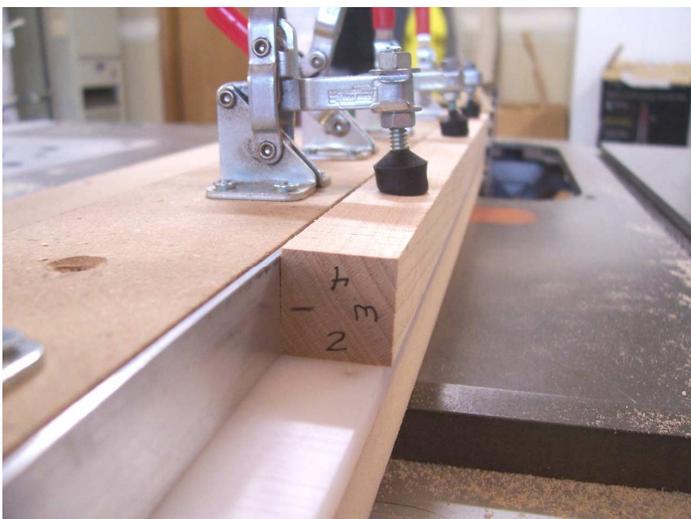


9. Now, make the first cut. It's hard to see in the photo, but I bandsaw rough sticks to about 7/8" "square" – so I don't waste so much exotic wood through rip cutting on the tablesaw. The first cut takes off about 1/16" to make one side of the stick flat and straight.

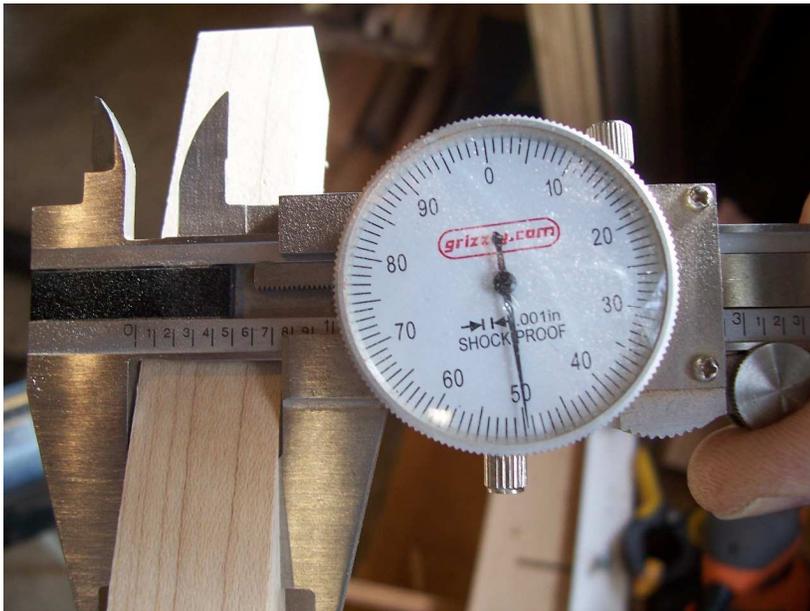


10. Flip the first side down in a clockwise rotation from this view, and make the second cut. Note – no shim is used for the 1st & 2nd sides. For this cut, it is important to hold the stick down to the sled at a few points (at least 2) along the length of the stick.

This cut makes the 2nd side both straight as well as square to the 1st side.



11. Cuts 3 and 4 go in similar fashion as far as the rotation goes – but now insert the shim between the jig fence and the stick. Cuts 3 and 4 make the stick corners square to the previous cut, as well as size the stick according to what was set in step 8.



After cuts 3 and 4, you should have a stick that is properly sized to within a couple thousandths, and square. Check both....

I use a light to check for squareness – using my best machinist square (not that great by a machinist’s standards I suppose...). You should not be able to see light between the square and the stick.

This is a crash course explanation, and you might run into questions as you begin to try this. Keep in mind I have made and remade, then remodeled many of my jigs over and over again! Nothing is permanent, nor perfect if you look close enough. The trouble is - the more practice you get, the closer you learn to look!

Just let me know if you have any questions...

