

Meeting Notice:

Feb: Tuesday the 17th at 5:00 PM

Location: Bldg 131 Ash Conf Rm

Subject: Flattening Boards

Project: Patio Item

Knot News

COLLINS WOODWORKERS GUILD NEWSLETTER

Next month:

Guess we'll all be surprised! Maybe a visit to New Mel-
leray Abbey to find a casket? Or we could discuss Wood-

en Signs?



TBD!

This month's subject:

For taking the old fashioned way of getting boards flat, let's share Joshua Farnsworth's blog on how to get hand crafted chunk of wood to be workable for a proud project that will last for decades.

To build quality traditional furniture, you need to start with perfectly flat and square lumber. Some people achieve this with power jointers, planers, and table saws. While the electrical power route is more economical for a commercial woodworking workshop, I prefer the safety, exercise, quiet, and historical feeling that comes from dimensioning my boards by hand. Plus, it just makes you feel cool. Sure it takes a little longer, but why did you get into woodworking in the first place? To hurry and build a bunch of stuff, or to enjoy yourself? It's therapeutic to take some things slowly. And with practice, squaring lumber by hand won't take all that long... ask your ancestors.

Step 1: Cut the board to rough dimensions
Use a longer try square (12" +) to mark your rough board's approximate length.

Step 2: Flatten a reference face with hand planes
Place the board between the bench dogs with the arced side facing up, to avoid rocking. You may need to use shims if your board is in really bad shape. Use a scrub plane or a jack plane with a cambered iron (8 degree camber/arc). This plane is going to be doing rough work, so don't worry about tuning it extensively. If you have an extreme arc in the board, plane down the length of the board, removing the high center:



Plane Flat Boards



Before planing across the grain, bevel the edge that is farthest away from you, to prevent major tear out:



Then plane across the grain, from one end to the other.

Adjust your plane so that your shavings are as big as possible, while still being able to move the plane. You can also take some diagonal passes both ways, to aid with flattening:



Tilt your jack plane on its edge and drag it along the board to get a rough idea of

your progress toward flatness:

You can follow Josh on his blog: <https://woodandshop.com/square-flatten-dimension-boards/>

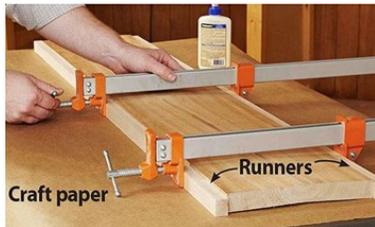


This month:

Flattening Boards

For a cupped board

Cut a pair of straight runners the length of the workpiece and glue them to both edges, as shown. After the glue dries, remove the clamps and run the assembly through the planer ~ crowned face up. Continue machining until the planer flattens the entire top face of the board. Then, flip the workpiece over and run it through the planer again to flatten that face. Use your tablesaw to rip away the runners and square the edges.



To flatten the board accurately, cover your tablesaw with craft paper and use it as a flat reference surface when attaching the runners.

one, the flattened area becomes visible as it exits the planer. Make repeated passes until the face is completely flat.

To flatten a twisted board

Make a sled from a scrap of flat plywood or MDF slightly longer and wider than your workpiece. Glue a cleat on the trailing end of the sled to capture the workpiece as it goes through the planer.



Using scrapwood wedges held in place with double-faced tape, shim the gaps between the sled and the twisted board to keep it from rocking. Now, run the sled and board through the planer to flatten the top. Remove the workpiece from the sled, place the flattened face down and plane the opposite face.

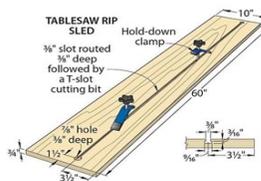
Insert shims without tape first. Once you've stabilized the board, remove

one shim at a time, apply tape, and return it to its location.

To rip a straight edge on boards

Build this sled and use it as a secure platform. To make a T-slot, use

a **Forstner bit** to drill $\frac{3}{8}$ "-deep starting holes where shown; then run your router against a straightedge clamped to the sled base and plow the channel between the two holes with a $\frac{3}{8}$ " straight router bit. Without moving the straightedge, install a **T-slot cutter bit** and rout the channel.



To use the sled, let the rough edge of the workpiece overhang the sled and secure the workpiece with **hold-down clamps**. Butt the opposite edge of the sled against your fence

and rip the crooked edge away, as shown at the top of this page.

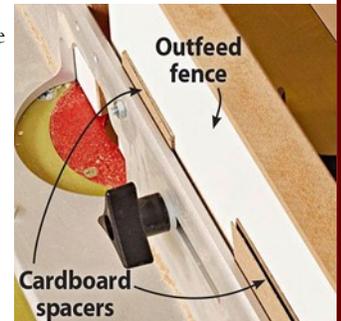
Too thick for the tablesaw?

Use a router, **bearing-guided flush-trim bit**, and a plywood straightedge instead. As with jointing on the tablesaw, one edge of the workpiece must overhang the straightedge. A $\frac{1}{16}$ " overhang should be adequate for most boards. Set the cutting depth so that the bearing runs against the straightedge, as shown, then trim the rough edge.

If your tablesaw lacks the power to cleanly cut thick stock, use the table-saw sled as a straightedge to guide a flush-trim bit.

For small, short, or highly figured boards prone to tear-out

Set up your router table as an edge jointer. This technique also saves time when edge-jointing several pieces because you won't have to clamp a straightedge to each workpiece. To start, install a **straight bit** in your router table, and then use thin spacers to offset the outfeed side of the table $\frac{1}{16}$ " , as shown.



Place thin cardboard spacers behind your router table's outfeed fence to offset it like a jointer's outfeed table.

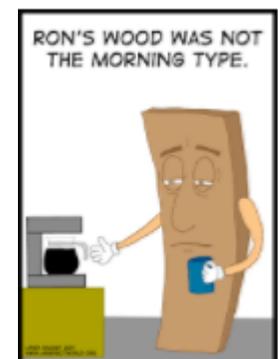
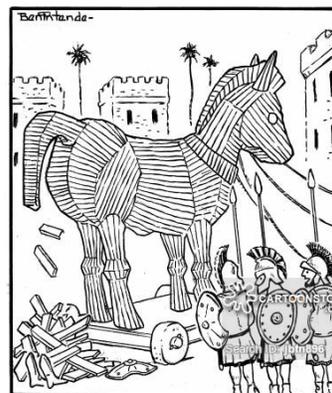
Space them evenly so the fences remain parallel.

Adjust the outfeed side of the fence flush with the bit. Remember, this isn't a jointer ~ feed stock slowly to minimize tear-out and give the smoothest edge.

Next Month Meeting

TBD

We will be talking about *something, maybe going to New Mel-leray Abbey to find a casket? Or Making Wood Signs*. The location is TBD. Plan on Tuesday, May 15th at 5:00 p.m.



Last Month meeting

The March meeting was held at Ron Kozitski's shop.



Ron started with a demo scroll sawing with a Delta saw he used for a long time and moved to an Excalibur that he picked up on Craig's List. He talked about features that were important and define the difference between a cheap saw and one that cost more but is much easier to use. We saw a YouTube video about scroll sawing. We toured of his shop. He had to get a special variance from the city to build it be-



cause of size restrictions. He showed us a mobile base he made for his bandsaw, and showed us what happens when you run a hinge into the blade on his Saw Stop tablesaw. He showed us his bench that he made from construction lumber. We even checked out his Mustang.



Scroll Saw

This Month's subject

Shooting Boards 101—By Ernie Conover Jan 15, 2006

Q: I want to use a shooting board to prepare 3/4-in.-thick by 3-in.-wide walnut stock for a mitered frame. I've read that shooting boards are appropriate for trimming miters on small parts, but will they work for the larger material I'm using? Also, do you have any other comments on the utility of shooting boards? MKetelsen, via Ask the Experts

A: Yes, a shooting board will work with your stock dimensions. And since these are shopmade jigs, their capacity depends on how big you make them. Shooting boards come in a variety of forms that are easy to make and even easier to use. They are generally comprised of three parts: a base for the hand plane to ride against, a ledge (or ramp) that aligns the work with the plane blade, and a stop (or fence) to hold the workpiece steady.

There are three versions of the shooting board that I find most useful: one to plane an edge square, and two to plane perfect miters. For each of these, I use high-grade plywood for the base and a stable hardwood, such as poplar, for the ledge and stop.

Each shooting board should have a dust groove where the ramp and ledge meet to collect debris and keep it out of the path of the plane. These jigs can be finished with a couple of coats of white or orange shellac. To keep the work from sliding around, you can glue fine sandpaper to the ledge.

Plane an edge square
A shooting board designed for trimming edges and ends to 90° is the simplest type to make and use. I design my shooting boards with an extra-wide base to accommodate long edges. I also attach the ledge on an incline to distribute the cut across the full width of the plane iron. A shooting board with a flat ramp will work, but you will wear quickly a groove in the sole of the plane and dull the iron.



When making a shooting board of this design, it is important to align the stop at exactly 90° to the ledge.

You may find that the simple shooting board is like bicycle training wheels, which you'll discard as your skills progress. On the other hand, I find that the miter shoot is always helpful.

Trim perfect miters on frames

The miter shooting board is used for trimming 45° miters on flat work such as picture frames or the molding around windows and doors. This version of the shooting board is also easy to make, although the stop block requires precision placement to ensure perfect miters.

The jig should be about the same size as the simple shooting board, but the work area can be somewhat narrower.

Also, the ledge doesn't need to be ramped. The cut is so small it will have little or no effect on the plane.

Create mitered ends for boxes

I could not live without this jig, known as a donkey's ear shooting board. It tunes wide or standing miters, such as those found in a mitered box or the corner of baseboard molding. The end view of the jig resembles a donkey's ear (stretch your imagination), giving the shooting board its name.

Making this board may look somewhat daunting, but it is simple. The important element is to rip the ledge at a perfect 45°.

Also, before assembling the jig, screw it together for test cuts.



Planning Meeting Notes

1) bandsaw blade group buy - Kerfmaster. <http://www.spectrumsupply.com/kerfmaster-2.aspx> Wayne Hanson coordinating.

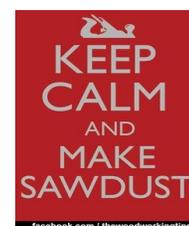
2) A euro hinge jig to add to the library.

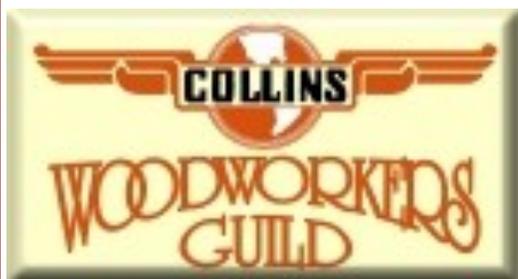
3) Time to do a Library inventory. Please ensure any books you've checked out get back to the Library AND be sure you update it online.

Upcoming projects:

April: Patio Project
May: Noise-maker, musical or otherwise
June: Box Joints/Fixtures
July: Handles/Knobs
August: Inlays
September: Scrap Wood Project

We would really LOVE to come see your shop. Would you be willing to open your [garage] door some time?





The Collins Woodworkers Guild is a club dedicated to preserving the age old practice of creation using the medium of wood. CWG members gather monthly to share tips, ideas and experience to further the knowledge of all members. From creating heirlooms for their families to Toys-For-Tots, members help each other get the most out of their woodworking experience.

Membership in the Collins Woodworkers Guild is open to ALL Rockwell Collins, Inc. Employees, Spouses, Retirees, and Contract Employees, AT ALL ROCKWELL COLLINS LOCATIONS!! Everyone is welcome at our meetings and yearly dues, renewed each September, are \$17.00

GUILD BENEFITS

- Access to our EXTENSIVE library of books, magazines and Tool Collection
- Open exchange of ideas, from project help to house building; and a hand when needed
- Social Activities
- Workshops
- Toys-For-Tots and other Programs to help our Community
- Educational and Informative Presentations
- Open Houses
- Tours

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