CMT

ORANGE TOOLS®

CMT Flush Trim Bit

The proper use of this bit allows you to replicate shaped parts quickly and easily

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This is the first time for Maureen with the SuperStation. She starts by moving the Incra TS-III to the router station.

She installs the pattern bit in the router.

She, also, loves using the bent wrench and working from atop the Rout-R-Lift.

She sets the height so that the bearing is comfortably positioned on the original leg. What she will be doing is trimming the bottom pattern board to the shape of the leg.

She makes the cut. You can see that the white starting pin is in place. She starts the cut by placing the workpiece against this pin. Then she carefully pivots the workpiece into the cutter and away from the pin. From that point on, she just moves the piece keeping some pressure on the bearing.

She has removed the original and now inspects her template. A little sanding removes any burrs. It looks good.

Back at the bench, she now uses double stick tape to fasten the new template to a piece of poplar.

She has used double faced tape to hold the pattern to the poplar, but where there will be mortises cut, she adds a screw to hold the template more securely. The screw won't show since it is where the mortise will be cut.

She heads back to the bandsaw, this time to cut the poplar. As before, she leaves about 1/8" wood that she will trim off in the next step.

Using the Rout-R-Lift's height adjustment, she brings the pattern bearing up so that it rides against the template.

Just as she did when cutting the pattern, she starts by pivoting on the starting pin and then moves the piece, keeping it against the bearing.

By the way, you can see that she has removed the Incra TS-III completely. That is simply done by loosening the hold-down screws and lifting it off. It gives her a large, flat table surface — ideal for doing these long chair legs.

With one leg cut, Maureen looks at the original to see where the mortise is located. She is holding the beadLOCK drilling block. The black rectangle at the right is a set of spacers that come with the beadLOCK. She sees that she will have to use the entire pack to set the mortise back as it is in the original leg.

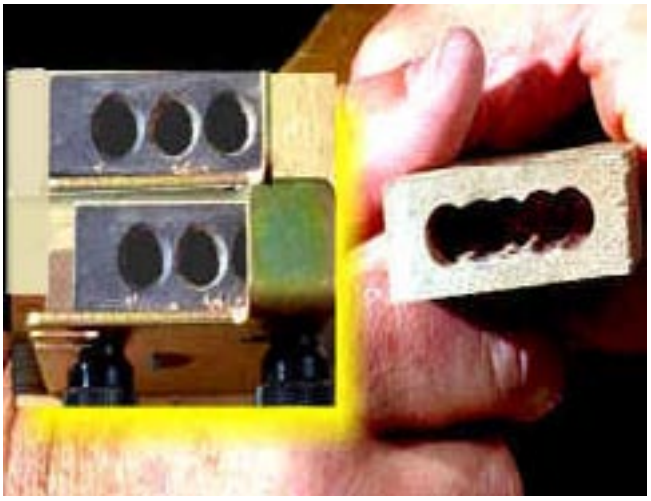
At the workbench, she places the leg and the beadLOCK jig in the vise. All the spacers are in place, and she has lined up the jig with the centerline she had marked.

Maureen has added a piece of masking tape to serve as a depth indicator. She wants to drill the holes 3/8", or half-way, into the workpiece. She drills the first holes.

She then moves the jig to the "B" position and locks it in place.

And she drills the two holes that are revealed. Lastly, she moves the jig back to the "A" position, and re-drills the first 3 holes. This serves to clean out the mortise.

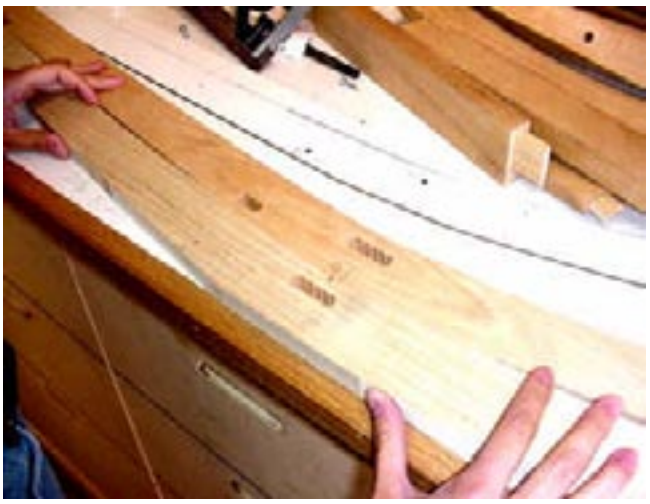
To clarify how the jig works, the drill guide has 3 holes and an “A” and “B” position. You start in the “A” position and drill 3 holes. After shifting to the “B” position, only two holes are exposed. They are precisely lined up between the first three holes. When done, the mortise will have 5 overlapping holes.



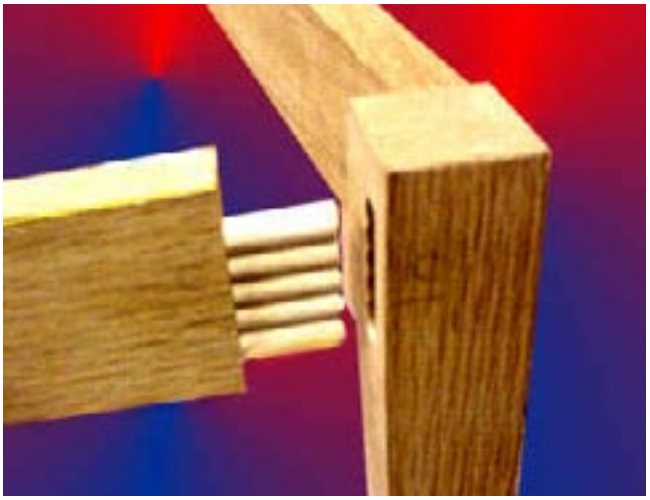
Maureen’s first beadLOCK mortise looks very good.

ere is a closer look. There is no doubt that copying this chair will take some time but is a doable task.

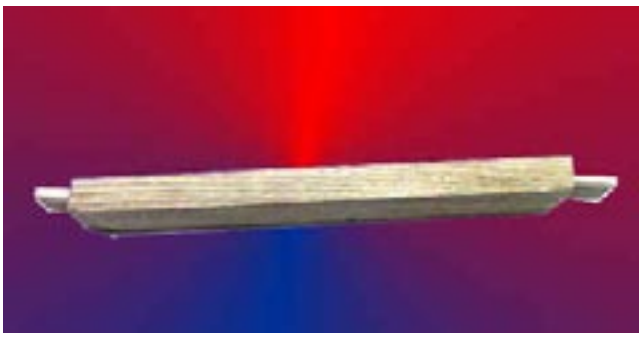
Before we break for the week, here is a close-up of some of the joints that make up the chair. I present them to illustrate the cleverness of the assembly, and how versatile the beadLOCK System is.



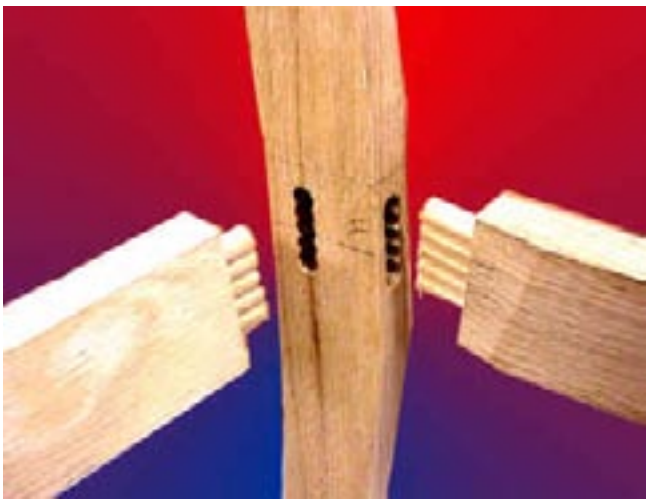
The Front Right Leg – the front joins the leg with a straight, full width beadLOCK joint that is offset so that the front panel is inset by 1/8”. Of course, the Left Front Leg is similar.



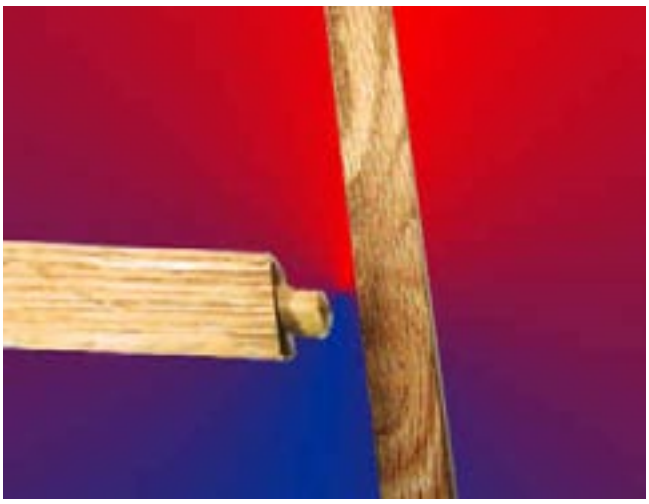
The Left Chair Side — The right end attaches to the front leg with a full beadLOCK tenon in an end that is angled. The left end joins the rear leg and is also angled. In both cases, the tenons are square to the angled end and to the leg. The Right Chair Side is the same but reversed.



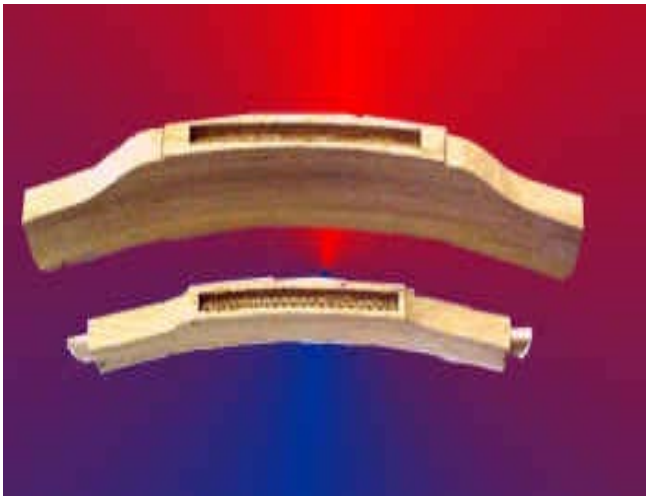
The Back Left Leg — This view says a lot. First, the side enters straight, but you can see where the leg is angled. At the left, the back side joins the leg square. It may look like the leg slants back slightly but that is the perspective of the photo. The total leg is curved but straightens out here, where the chair seat frame joins.



The Bottom Spreader — The mid-stretcher joins the right spreader at an angle. The single pin is not a dowel, but one pin of a beadLOCK Loose Tenon. Of course, the side stretcher hole is drilled at the same joining angle.



The Top and Bottom Seat Back Rails — The upper rail is shown upside down. Both rails have slight curves to them. The top and bottom rail mortises were cut with a series of 3/8" holes, and then a chisel was used to square the mortises. The panel that fits in these rails is 3/8" thick and also curved. The lower rail joins the legs with beadLOCK tenons and are only 3 wide (normal is 5.) The upper rail does not use beadLOCK. It is screwed to the leg as the final step. When we make the Mission Style version, we will use beadLOCK tenons similar to the lower rail.



Here is one final look at the beadLOCK demonstration chair. Maureen and I have studied it pretty carefully and will make the same chair except that we will make the legs from 1 1/2" stock, the top rail will be square and mortised just like the bottom rail, and instead of one solid panel, we will use several slats.

I will pickup some quartersawn white oak, and next week we will continue chair making.