

Cutting the bridle joint

BY CHRIS GOCHNOUR

In a recent Handwork I demonstrated how to cut the half-lap—and its close cousin, the T-lap (*FWW* #252, p. 74). It's a great joint for honing your hand-tool skills because it teaches the fundamentals of accurate layout and cutting technique.

Here I'll demonstrate how to cut the bridle joint, a strong joint that's widely used in door and face frames. The anatomy is

simple. A tenon on the rail fits an open-ended mortise on the end of the stile. Cutting the joint is another great exercise for your hand-tool skills. There are a few quirks to laying out the joint, but I'll show you how to do it, then I'll demonstrate how to cut the housing and tenon to create a perfect-fitting, strong joint.

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Start with the mortise

Accurate layout is the critical first step. From there, three cuts remove the waste with just a bit of material to pare to the lines.



Mark the baseline. Knifing directly from the rail's width, make a tick mark on the corner of the stile.



Scribe a line. Aligned with the tick mark, this line shows where to stop the mortise gauge in the next step. Carry it over one face and onto the second edge.



Lay out the cheeks. Start at the pencil line on one edge, come up and over the end grain and then back down on the second edge, stopping at the pencil line. Reference the fence on the stile's front face.



Knife the shoulder on the second edge. Guiding the knife with a square, cut a line between the mortise gauge's lines.



Start the cheeks at an angle. Cut a shallow kerf across the end grain, working down the edge of the mortise until you've cut a sloped kerf. Flip the stile around and make the same cut on the other edge.



Level off to finish off. This cut takes care of the triangular bit of waste and makes it easier to get a flat bottom at the shoulder.



Remove the waste. A coping saw quickly cuts across the shoulder. Be sure to cut proud of the knifed shoulder lines.



Pare the shoulder. Work in from both edges to create a flat shoulder.



Shave the cheeks, too. Use a wide chisel and come in from both sides to work down to the lines cut by the mortise gauge.

Cut and fit the tenon

The top edge and end of the tenon are visible in the assembled joint, so take care when sawing and trimming the cheeks. Work to your layout lines, but not inside them.



Mark the tenon's length. This time mark directly from the stile's width, making just a short tick on the rail.



Mark the shoulders. Working from the tick mark you just made, make a cut along the shoulder on all four sides.



Lay out the cheeks. Register the gauge's fence against the rail's front face, and cut the two edges and the end grain.



Saw the cheeks. Use the same technique you did for the mortise: across the end grain, angled down both edges, then flat across for the bottom.



Create a shallow shoulder. Use a wide chisel to cut a shallow V-groove on both sides. This guides the saw for the shoulder cut and gives you a clean shoulder.



Cut away the cheek waste. Keep the saw level so you don't cut too far on either edge. The waste should fall away freely, or you can pop it off with a chisel.



Pare the shoulder. Clamp the rail vertically and use the clean shoulder (created when you pared the V-groove before sawing) as a guide.



Clean up the cheeks. A shoulder plane takes controlled shavings as you work down to your layout lines.



Hand cut and tight. The payoff for careful layout and working meticulously to those lines is a gap-free joint that is as strong as it is beautiful.

