



Dovetails on the Tablesaw

Make better, faster through-dovetails,
with a trick for perfect half-blinds, too

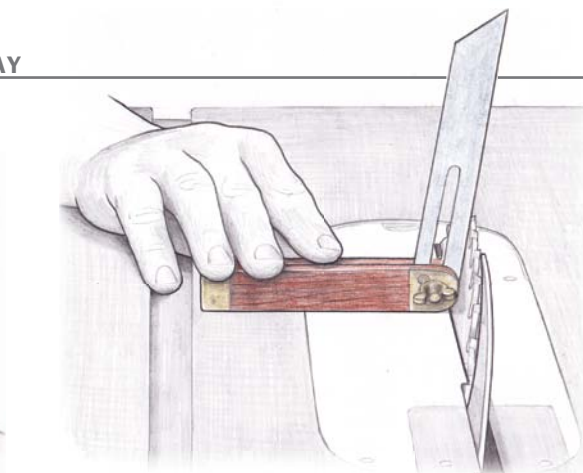
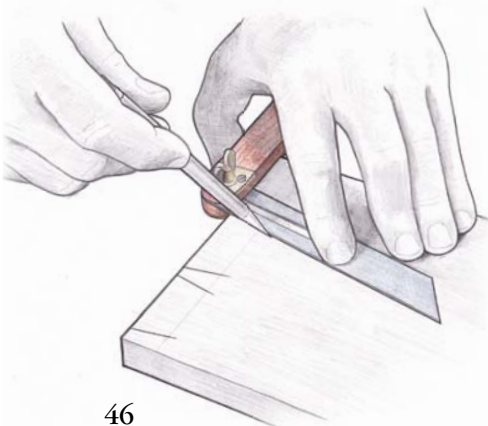
BY GREGORY PAOLINI

It takes an awful lot of practice to cut dovetails by hand and to do it well. Your sawcuts should be straight, at a consistent angle, and square to the board's face. And you can't cut into the baseline. Later, when you're paring and attempting to make up for bad sawcuts, you can make things much worse.

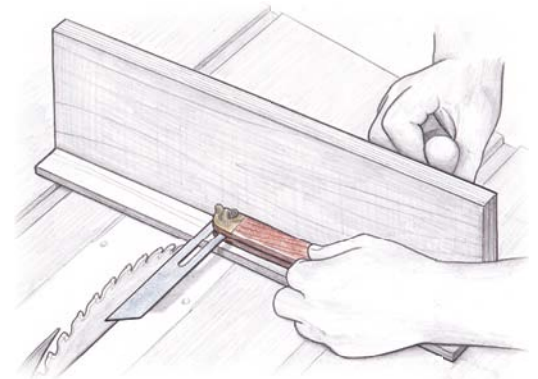
There are ways to cut dovetails that bypass those challenges. With a router and jig, you'll get straight and square tails and pins that have consistent angles. Unfortunately, they won't look as nice as hand-cut dovetails. It's difficult

BEVEL GAUGE GUIDES THE WAY

To take advantage of the tablesaw's accuracy, you need to set it up precisely. Using a bevel gauge is the secret.



Mark the tails, setting the gauge at your favorite dovetail angle (left). Paolini likes 10°. Then use the same bevel-gauge setting to angle the blade (above) to cut the tails.



With the blade at 90°, angle the miter gauge for the pins. Don't change the setting on the bevel gauge, and the pins are sure to match the tails.

Angle the blade to cut the tails

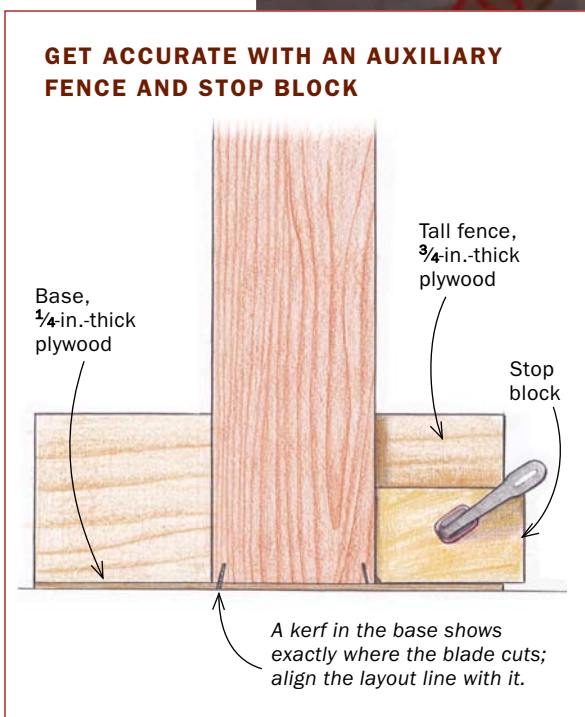
The tablesaw locks in the cutting angle and a stop block allows you to make eight cuts from a single layout line. So all you need to do is lay out the tails at one end of one board.



Angle the blade. Make sure the bevel gauge's setting hasn't changed and that it's flat against the blade's plate, coming up in a gullet between teeth.



Scribe the baselines, then lay out the tails. Scribe all the boards (left), wrapping the marks around the edges on the tail boards. You can space the dovetails any way you want (right), but they should be symmetrical around the centerline.



Four cuts from a single setup. Flip the board to make two mirror-image cuts, then rotate it end for end to make the same two cuts on the opposite end. When you've done the same with the second tail board, you've made eight cuts without moving the stop block.

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The mirror effect. As you work across the board, moving the board (and stop block) to a new layout line and making all four cuts each time, you naturally begin to cut the second side of every tail.



Nibble the ends. A few eyeballed cuts knock off most of the waste at the ends.



Clean out the waste. After defining all of the tails at the tablesaw, cleanup goes quickly. Work to your scribe lines.

Angle the miter gauge for the pins

Move the blade back to 90°. One side of every pin is cut with the miter gauge angled in one direction. Angle it in the other direction to cut the second side.

CUT THE FIRST SIDE OF THE PINS



Transfer the tails to the end grain. Do this on all your boards. Paolini uses a 0.5mm mechanical pencil because of its very fine line.



Wrap the line onto the face grain. You can't see the end grain when the board is standing on the auxiliary fence, so you'll need these lines to align the board for cutting.

Adjust the miter gauge. Use the bevel gauge, still set to the angle used for the tails. Paolini attaches a new auxiliary fence so that the kerf for this cut doesn't overlap the one used for the tails.



to reproduce the wide tails and narrow pins that make the hand-cut version so appealing.

However, there is one power tool in your shop that excels at cutting straight and square, and can easily maintain the same angled cut for both tails and pins: the tablesaw. What's more, because tablesaw blades are no more than $\frac{1}{8}$ in. thick, you can reproduce hand-cut dovetail spacing, too.

Of course, because both the tails and the pins are cut at the tablesaw, you're limited to through-dovetails. That's great for case joints and the back joints on a drawer, but what about the half-blind dovetails we all use to join the drawer front to the sides? No problem. I have a trick that turns a through-dovetail into a half-blind, with added benefits you can't get the traditional way. But let's start with the basics.

Use a rip blade and auxiliary fence

To cut dovetails this way, you need only your stock miter gauge and a blade. I use a rip blade because these are ripcuts and because it has a flat-top grind, which leaves a flat shoulder when I cut the pins, with no paring needed. However, any standard blade will leave a bit of material between tails, so you'll still have some

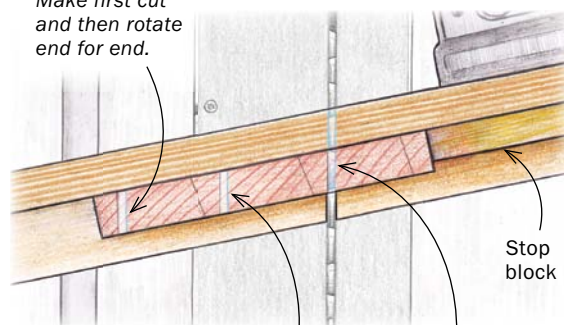


Don't cut into the pencil line. If you do, the pin will be too narrow and you'll have gaps in the joint. Take advantage of the zero-clearance kerf, aligning the board so that the pencil line is right next to the kerf, but not in it.

MAKE ALL THE CUTS YOU CAN

You can't flip the board this time to make a mirror-image cut on the same end, but you can invert it. Keep the same face out.

Make first cut and then rotate end for end.



Move the stop block. Make second cut and then rotate end for end.

Move the stop block one more time and make third cut, then rotate end for end again.



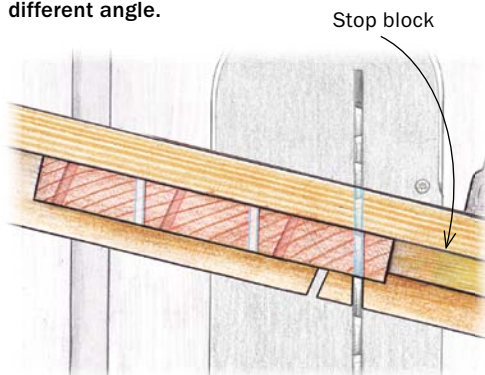
CUT THE SECOND SIDE OF THE PINS



Reset the miter gauge. There's no way around it to cut the second side of the pins. Be sure the bevel gauge is still locked into its original setting.

OPPOSITE ANGLE FOR SIDE TWO

This is just like cutting the first side of the pins, except the board goes through the blade at a different angle.



Nibble the waste by eye. Most of the waste can be cut out with the fence at the second setting, but you'll need to move it back to the first setting to get all of the waste.

paring to do. If you're going to cut dovetails this way all the time, get a blade with the teeth ground to match the dovetails' slope. Any saw-sharpening service can do it. Use it for the tails and you won't have any paring to do in the corners, either.

You also need two L-shaped fences for the miter gauge—one for the tails and one for the pins. They should be at least twice as long as the drawer sides are wide, so the sides always have support as you move them to cut the pins and tails. After the fence is attached to the gauge and a kerf is cut into it, it's easy to align layout lines with the kerf so the blade cuts exactly where you want it to.

Gregory Paolini is a professional furniture maker and teacher near Asheville, N.C.



Payoff is perfect joints. After cleaning up the baseline of the pin board with a file, the joint should come together square, without gaps, and without much persuasion.

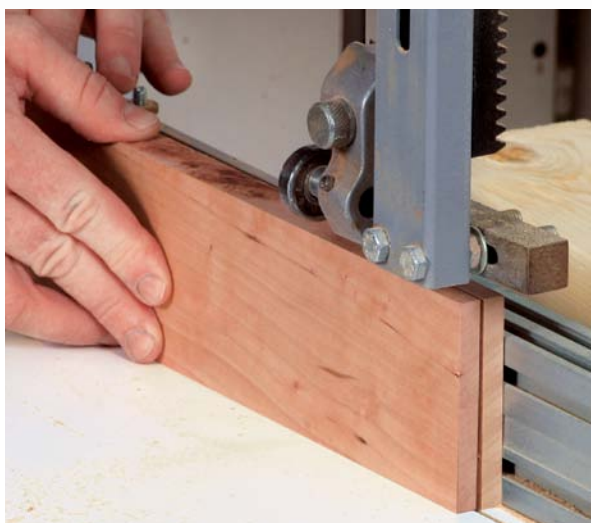
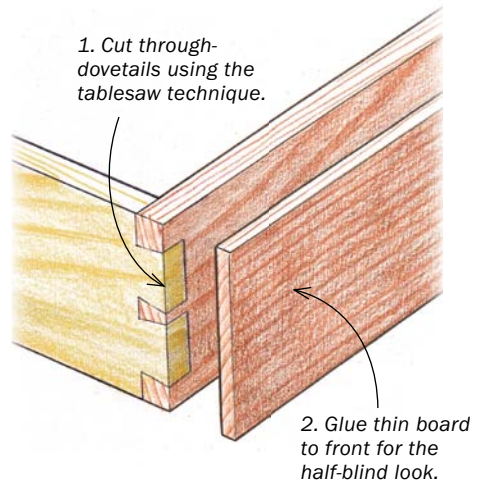
Online Extra

To watch a video demonstration of Paolini's technique, go to FineWoodworking.com/extras.

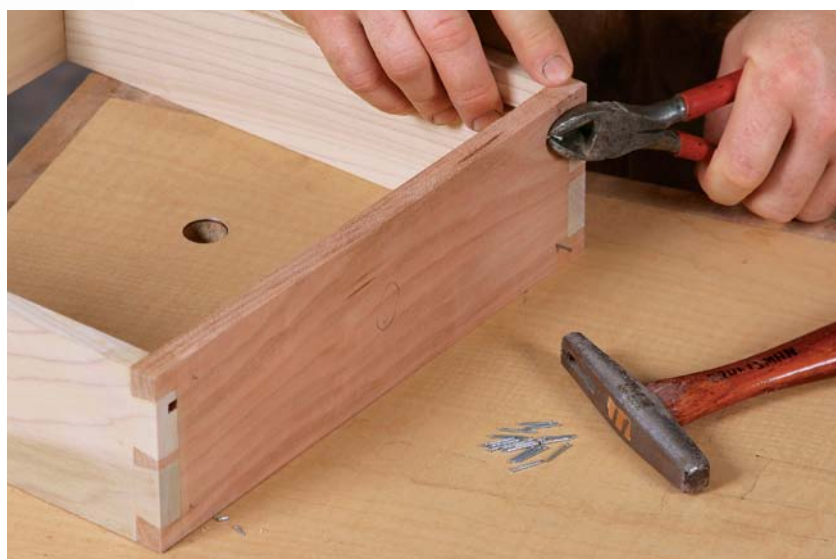


Use the same technique to make half-blind dovetails

You can use through-dovetails in lots of places, but typically not drawer fronts. There, you want half-blind dovetails. But you can still use this dovetailing method by gluing a thin board (1/8 in. to 1/4 in. thick) to the front of the drawer box after it's glued together. That allows you to use through-dovetails for all of the joints, but still get the half-blind look. As a bonus, you get more mileage from your best lumber, which you can resaw to get book- and slip-matched fronts.



Cut the fronts. Resawing from a thicker board lets you spread a beautiful board over several drawers.



Brads lock it in place. Cut them off short and they'll stick into the front and prevent it from creeping under clamping pressure.



Don't skimp on clamps. Paolini uses a caul made from melamine-covered particle-board to protect the front and help spread the pressure over the entire surface (for a tight glueline around all four sides).



Just rout it flush. Routing is faster than a handplane and makes it easier to keep the edge square to the face. Do the ends before the long edges, and use a pin in your router table to help you enter the cut safely.