Shoulder Your Dovetails

Make layout easier and get cleaner results

BY STEVE LATTA

I can't remember when I started shouldering my dovetails, but it has been a regular practice for most of my years as a cabinetmaker. In my early days, I noticed the old-timers shouldered the dovetails on spice chests to avoid cutting half-blinds. They quickly cut through-dovetails and covered the joinery with a molding. This combined efficiency with cleanliness, and in my book that is always a winning combination. I've expanded the practice to just about all my dovetails. The lip allows for an easier, more positive registration and covers up any inaccuracies or slight chipping that may occur.

I'll walk you through this technique. It's my typical approach for drawer construction, the top stretcher of a table, and carcases. The order of operations is almost the same for all. It is easy and saves time while adding to the overall clean look of the piece. Why wouldn't I use it?

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DRAWERS WITH NO TWIST

While creating the shoulder on a dovetailed drawer makes a huge difference to the stability and appearance of the finished product, shouldered dovetails aren't much more work to create.

After you fit the drawer front to the opening, lay out and cut the dovetails on the sides. I cut mine on the tablesaw using a customized blade for cutting dovetails. All the teeth are ground at 10° in one direction, and I tilt the sawblade 10° so its tip is parallel to the saw table (for more details on my method, see "Tablesawn Dovetails," *FWW* #152). I use a scrollsaw to remove the waste between tails.

I shoulder the tails on the tablesaw with a rip blade. Hold each drawer side on end against the fence to skim off about 1/16 in. or so of material to create the shoulder. Now move on to the pins. Set a marking gauge to the thickness of the tails, and transfer them to the drawer front. Mark one side of the tails, wiggle the board to just cover those lines, and then mark the other side of the tails for a tight fit. With a handsaw, cut to the line on the sides, clear the sockets close to the line with a router, and pare to the lines with a chisel.

Cut the tails, create the shoulder, and mark the drawer front. *Set a marking gauge to the thickness of the tails and score the drawer front. Then, registering on the shouldered tails, transfer them to the drawer front with a knife.*

Flat and clean. *The shoulders ensure square joinery and a drawer box that sits flat (left). They also conceal any gaps or sawcuts, leaving clean inside corners (above).*

SQUARE DRAWER POCKETS IN TABLES

Combining the shoulder with a double dovetail on the top stretcher not only makes transferring the layout easier, but it also ensures that the drawer pocket is dead-square. If the shoulder-to-shoulder distance of the bottom stretcher with double tenons matches the shoulder-to-shoulder distance of the top stretcher with the double dovetails and the back stretcher, the drawer box is guaranteed to be square. I typically use a double tail as opposed to a single one, because adding the second tail doubles the face-to-face glue surface.

In this situation, I use the tablesaw with a miter gauge to make the shoulder cuts for the tails. Then, with a tenoning jig, I make the cheek cut on each end of the upper rail.

Creating the shoulder. *Latta uses a miter gauge on the tablesaw to make the shoulder cuts on the faces and edges of the tail board. Using a test piece, creep up on the shoulder-to-shoulder distance until the shoulders exactly match those of the lower stretcher to ensure a square opening (above). Then, use a tenoning jig to make the cheek cut on each end of the upper rail (right).*

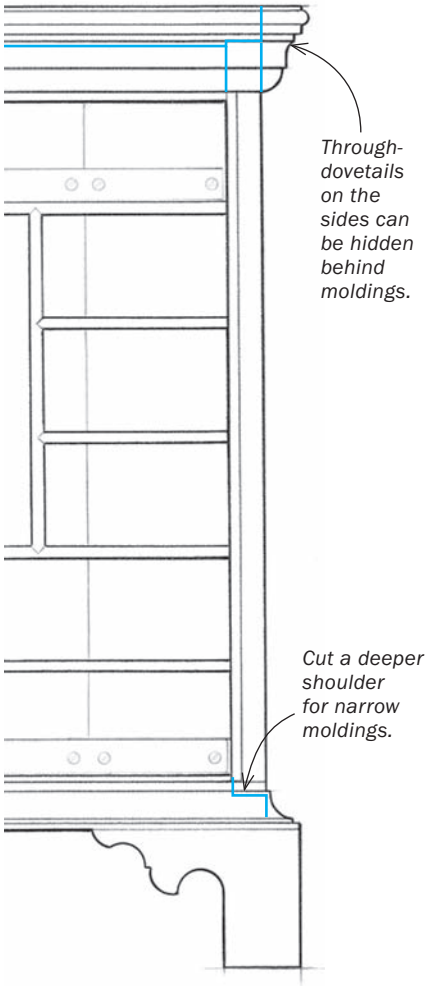
Cut the tails. *After establishing the shoulders, Latta cuts the tails on the scrollsaw, getting close to the layout lines, and then pares them clean with a chisel.*

Transfer the tails to the top of the leg. *Registering on the shoulder, score the ends of the tails on the top of the leg (above). For a tight fit, mark one side of the tails, move the board to just cover those lines, and then mark the other side. Rout the pin sockets, pare them with a chisel, and test the fit (left).*

Photos: Anissa Kapsales

SQUARE GLUE-UPS AND HIDDEN JOINTS IN CASEWORK

Shouldering the dovetails on case pieces guarantees a square box, makes it easier to lay out the pins, and makes the tails easier to hide with molding. Latta cuts the tails on the tablesaw, cleans out the centers with a scrollsaw, and then pares them with a chisel. Then he uses a router with a wooden fence clamped to it to cut the shoulder. The fence also creates a zero-clearance cavity that eliminates tearout. Once the shoulders are cut, he transfers the tails to the pin boards.



Rout the shoulder and transfer the layout. *Latta cuts a deeper shoulder on the case bottom to make the tails thinner and easier to cover with the narrow molding. Clamping a wooden fence to the router makes it easy to cut the shoulders. Then, resting on the shoulders, transfer the tails to the pin board and cut the pins.*

Drawing: Bob La Pointe