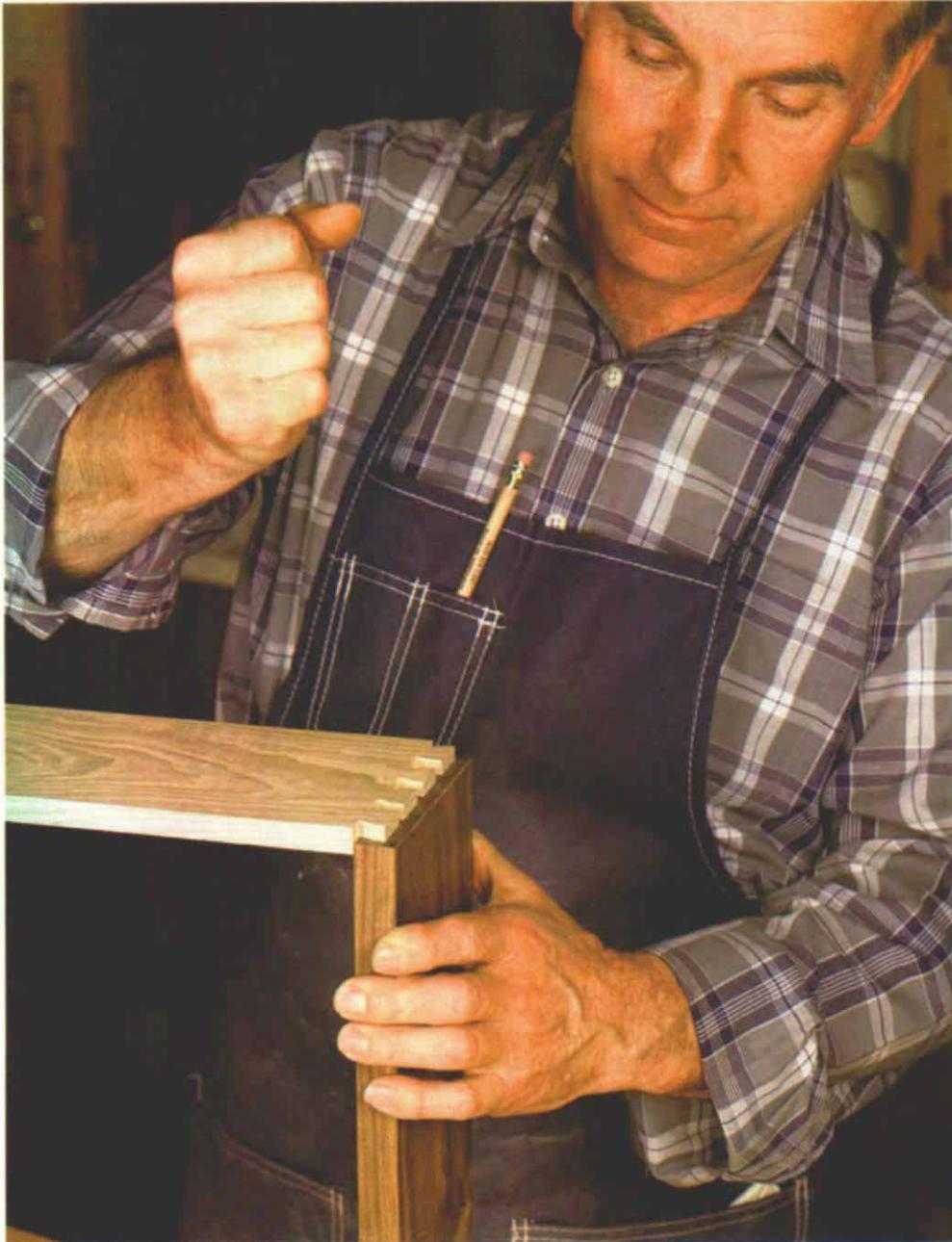


Making a Drawer with Half-Blind Dovetails

You don't have to sacrifice speed for a hand-cut joint

by Frank Klausz



Half-blind dovetails allow drawers to blend in with surrounding surfaces and make for continuous grain pattern or figure, top to bottom and side to side across a piece. The joint is no more difficult to cut than through-dovetails.

When I make drawers, I use half-blind dovetails to join the drawer front to the sides. I'm a traditionalist and prefer not to let the joint show through on the face of a piece. To enhance the look of the joinery when the drawer is pulled open, I use two contrasting woods on my drawers, such as walnut for the front and white ash for the sides and back.

Once I've selected the wood, dimensioned it and cut it to size, I mark each board to indicate which edge is up, what part of the drawer it is (left side, right side or back) and which face is outside. I look at the grain pattern and growth rings, and I make sure the inside of the tree is on the outside of my work. Then I cut a groove near the bottom of the drawer sides and front with a couple of passes on my table-saw, making it a snug fit for the drawer bottom. I test the fit with a piece of scrap the same thickness as the drawer bottom. I rip the drawer back to the top of the groove, so I can slide the drawer bottom in after assembly.

Next I set my marking gauge to the thickness of the drawer sides. Then I mark the inside of the drawer front, all around both ends of the drawer back and around the back ends of the two drawer sides, which will be through-dovetailed to the back. I set my marking gauge to about two-thirds the thickness of the drawer front (the tail length), and I mark the two ends of the drawer front.

Then I cut and chisel my dovetails as shown in detail on this and the next two pages. Once all the pieces are cut, I test-fit them and make any necessary adjustments. Then I disassemble the pieces, finish the inside surfaces with a few strokes of a fine smoothing plane and sand them with 120-grit sandpaper. I apply white glue with a disposable acid brush. I've found that white glue sets a bit slower than yellow glue, so I don't have to rush the assembly. The brush helps me get a good, even coat, even in tight spaces.

I don't use clamps on drawers; the joints are tight enough to create a good bond between the drawer parts. I use a hammer and a block of hardwood to close the joints. To ensure that the drawers are square, I just insert the drawer bottom as soon as the drawer is together. Because the bottom is square, the drawer squares up automatically. □

Frank Klausz makes furniture and repairs antiques at his shop in Pluckemin, N.J.



Cut the two half-pins at either edge of the drawer-front end, taking care not to cut past either scored line (top left).

Next judge angle and spacing by eye, without laying out the dovetails, and cut a full tail (bottom left).

Visually divide the remaining space in half for a drawer with two full pins, in thirds for a drawer with three full pins and so on. Make all cuts at one angle first (see the drawing below for sequence), and then cut all the opposing angles (bottom right). Also cut the pins for the drawer back at this time, using the same method. For the strongest dovetail joint, through- or half-blind, pins and tails should be approximately the same size.



Photos left and right: Vincent Laurence

Pin-cutting sequence

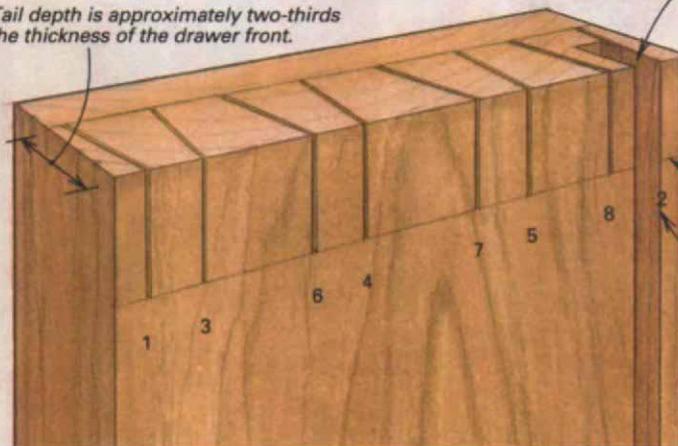
By spacing his dovetails by eye, the author saves layout time and ends up with dovetails that are still just as regularly spaced as they need to be. If they're slightly off, so much the better: they look more hand-cut.

Tail depth is approximately two-thirds the thickness of the drawer front.

Routed or tablesawn groove for drawer bottom

Baseline

Numbers indicate cutting sequence.



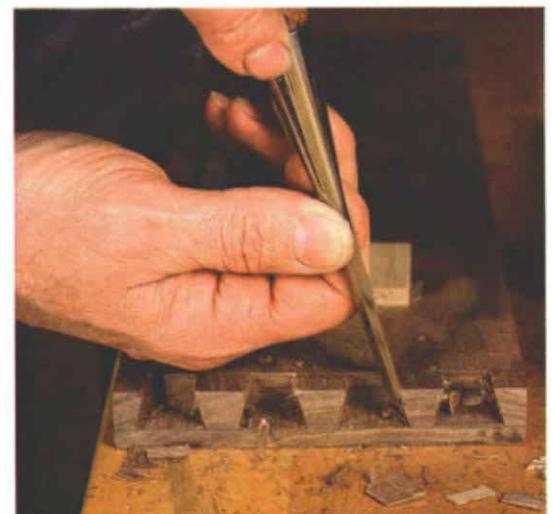


Chisel baseline (top left). Position a paring chisel just ahead of the baseline, bevel out. Tap the chisel with the mallet. The bevel drives the chisel to the scored line, preventing tearout.

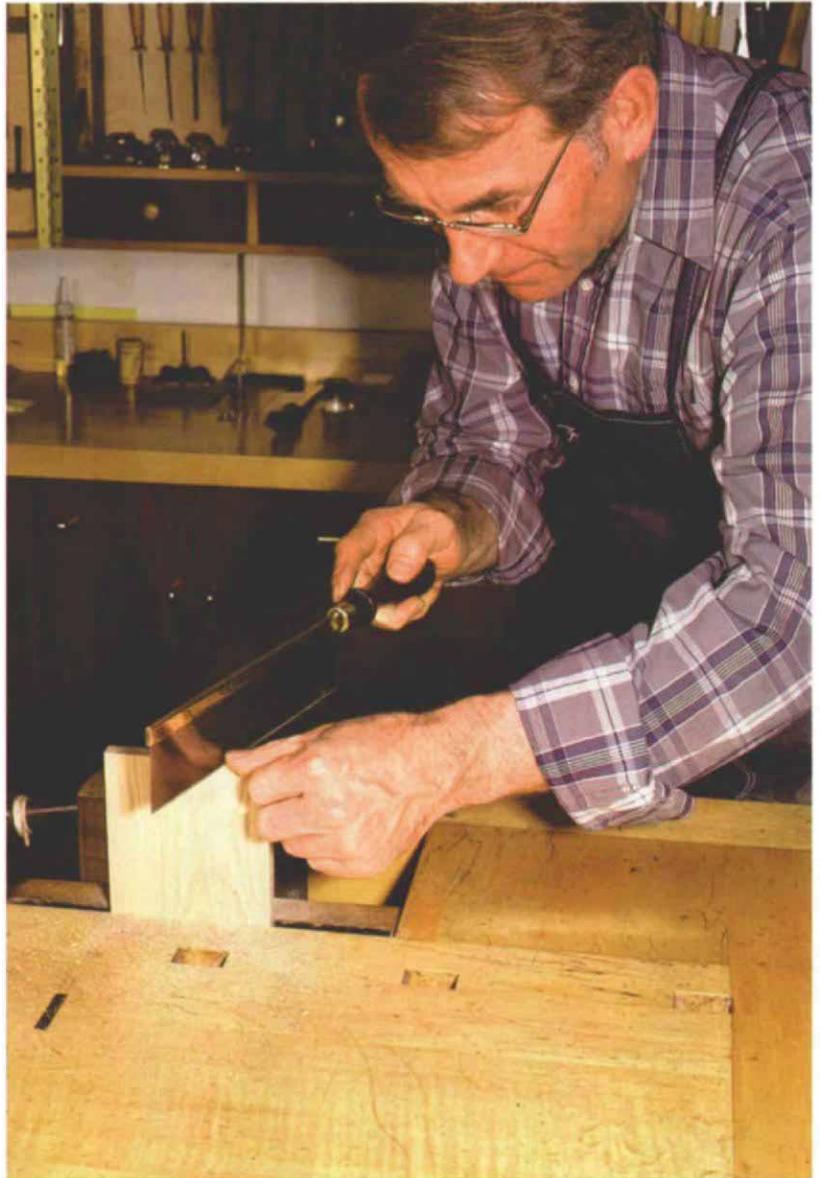
Position your chisel 45° away from your body, about halfway between baseline and the end of the board, bevel up. Whack the chisel with a mallet, gradually moving the chisel back to the end of the board, working down through the waste between the pins (bottom left).

Alternate chiseling from the end with perpendicular blows at the baseline that free the waste (top right).

Clean up any rough pins once you're down to the tail-depth line (undercut it slightly) by paring carefully into the comers (bottom right).



Mark the tails from the pins with a sharp pencil. The pencil line is easier to see than a knife line (below). By splitting the pencil line, you can get as tight a joint as if you'd used a knife. Before doing any marking, though, make sure the inside of the drawer is facing up on the bench and that the groove for the drawer bottom in the side lines up with the groove in the front. After marking the tails on the front of the drawer sides from the drawer front, mark the tails on the rear of the drawer sides from the pins you cut for the drawer back.



Use your thumb to guide the blade. With the tails marked, put one drawer side upright in the vise with the inside facing you. Take a couple of strokes to establish a kerf at what looks to be the correct angle. Then double check the angle before finishing the kerf. (Klausz doesn't worry about the blade being horizontal front to back because it's become second nature to him by now.) Saw carefully, splitting the pencil mark just down to the baseline. After repeating the process for both ends of both sides, chisel out the waste in the same manner as with the drawer back (above).

They're usually right on, but if they're not, it's not a problem. Klausz cuts small wedges from an offcut of the same board that the flawed dovetail was cut from (left). He tapers the wedge in two planes so that as it's tapped into the gap between pin and tail, it closes up tightly both on the end and on the side. By using the same wood, you get an almost invisible repair.