



**Carving comes first.** It makes sense to carve the box parts before cutting joinery. See *Master Class* (p. 74) to learn how Follansbee lays out and carves these patterns.

# Simple, Handsome 17th-Century Box

Underneath the carving, this traditional form is a great exercise in hand skills

BY PETER FOLLANSBEE



# Corner joinery

## SPEEDY RABBETS



**Mark each rabbet with its matching box side.** If you prep these boards by hand, you likely won't get both ends exactly the same thickness. So mark each rabbet using the part that will join it.



**Marking gauge lays out rabbets' depth.** Reference off the same surface for each joint. Follansbee uses the outside faces.



**Saw and split.** After sawing the rabbets' shoulders, Follansbee splits the cheeks. The grain must be straight for this to work well. Stay well shy of your depth layout line.



**Pare to the layout line.** Follansbee uses a long paring chisel to flatten the rabbet while bringing it to final depth.

log, quartersawn boards are a good second choice. In a pinch, I've even used rift- and plainsawn oak.

### Rabbets take account of handwork

I make furniture entirely by hand, so I don't rely on all surfaces being perfectly flat, square, and even. Instead, I establish reference edges and faces. For boxes, these are the outside faces and bottom edges. All my layout is done off of these two surfaces. To keep parts oriented—front, back, left, and right—I strike a triangle into the top edges.

The rabbeted joinery also accommodates the handwork. Because I mill and prep these boards by hand, I'm sure I rarely get both end boards the exact same thickness. As a result, the ends are not interchangeable; each has a dedicated position in the box. So I use each end to lay out the width of its respective rabbet. It

helps to have the rabbets slightly overwide at this point, letting you clean up the joint later. I use a marking gauge to lay out the depth of the rabbets.

I saw the rabbets' shoulders, chop with a chisel to split the waste off the cheeks, and then pare across the grain, working down to the layout lines. If I had a really cantankerous board, I might saw the cheeks, but I can't remember the last time I did so.

To fasten the rabbets, I use wooden pins and glue, spacing the pins by eye. I bore  $\frac{1}{4}$ -in. pilot holes, drilling from the inside of the rabbet so I can see where I'm putting them. To avoid blowout, don't put them too near the edges of the board. Once you transfer and bore mating pilot holes in the ends, you'll need to wait to pin them until after you've made the parts for the till.

### Lidded till

The lidded till is a nice touch that I include in most of my boxes. It runs front to back, and it doesn't matter which end you put it on. But like I said, the till can get fussy. The till parts are captured between the front and back of the box. Come assembly time,

## BORE FOR PINS



**Holes for pins and pintles.** The rabbets get pinned, so bore those holes in the box front and back now. Also bore the clearance hole for the pintles on the till's lid. This hole should not sit too close to the box's upper edge or the rabbet.



**Box ends need holes too.** Transfer the pilot hole locations to the box ends, then bore those holes to the proper depth.

# Add the lidded till

**Lay out the till joints.** After using a square to lay out the dado for the till's front, Follansbee uses a marking gauge for the bottom's groove (right). Saw most of the groove walls (far right), tilting the backsaw so you don't cut beyond the till side. Watch that you don't cut into the rabbet.



**Chisel work.** Strike straight down to incise the dado. Then, with a wide chisel used bevel down, bring the dado to near depth (right). Switching to a narrow chisel, split out the waste from the groove (far right), and smooth the bottom of the groove and the dado.



**Transfer the till joinery with the box assembled.** To lay out the till joints on the back of the box, first extend the dado's layout to the top edge of the front. Then use a large square to scribe those marks on the back side. Lay out the groove with a marking gauge. Then cut the till joints.



**Mark till lid's length and pintles.** Having the box clamped up to do this lets you mark off the actual piece instead of relying on a drawing.



you'll build the box around the till. I've sometimes wished for a third hand at assembly for this reason. So be careful with your layout and joinery to limit the headache.

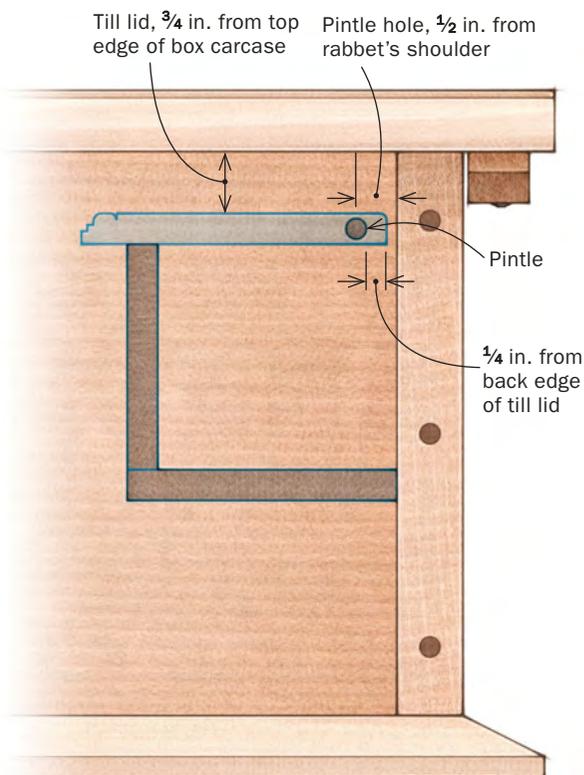
The till has three parts: the lid, the side, and the bottom. I use hardwood for the lid and whatever I have on hand for the rest. Lay out the dado and groove so the lid overhangs the till side a bit, allowing you to lift the lid from underneath. The lid's pintle hinge should not sit too close to the box's upper edge or rabbet.

Now cut the joints. I begin the groove for the bottom with a saw before chopping and paring with chisels. The dado is all chisel work.

I then test-fit the box carcass to get the proper lengths for the till parts. With the box clamped up, get the length measurements for the till side and bottom. They are often the same, but sometimes not. For the till lid, I hold it in place to scribe its



**Cut the lid and pintles to shape.** Start by ripping and crosscutting the lid to form the rough pintles. Then, with a knife, shave the pintles until they fit into their respective holes.



**Test the lid's action.** Now is the time to adjust the lid, not after the box is glued and pinned. Round over the back of the till lid so it doesn't catch as it opens.

# Assemble the box with the till inside



**Square pins, round holes.** Pin the back first. Use straight, square pins slightly larger than your pilot holes. The ideal pin compresses the hole a bit and fills it completely. Trim and pare the pins flush afterward.

pintle locations and shoulder-to-shoulder length. I then saw and pare the pintles until they fit easily in the holes.

## Build around the till

This box has a lot of loose parts, so glue-up can be a bit like juggling. Start by gluing and pegging the rear board to the ends. Trim these pegs flush. Next, lay the rear board on its back with the ends sticking up. Drop in the till parts, with the till lid open. Add glue to the box ends and the rabbets in the front, then put the front in



**Add the till parts and front.** Drop the till parts dry into the back, with the till lid open. Apply glue to the box ends and put the front in place. Patiently fiddle the till parts into position in the front, then drive the pins.



**Carve the thumbnails.** Use a deeply curved gouge and a mallet to chop thumbnail cuts into each end of the box front. Then use the same gouge to punch an echo cut right behind each thumbnail. Eyeball the spacing.



# Hinge the back, nail the bottom



**Drive and clinch the hinges into the back.** After boring a pilot hole and hammering the hinges in place, fold over their tips with a pair of pliers. Then drive these points, like staples, into the back's inside face to secure the hinges.

place. Fiddle the till parts in position—stay patient—before driving in the pins.

The pins are square pegs. Don't shortchange these. You want dry, straight-grain stock. I split them out oversize and pare them with a very sharp chisel. Aim for squares just larger than the pilot hole and with no taper. It helps to bore a test hole to check your progress. Lightly point the ends. You want to see the corners of the pins shear a bit as you drive them. Leave them long so you can trim them flush at the end.



## Simple hinges

I know these hinges as gimmals, although some call them snipe-bills or snipe hinges. They're essentially two linked cotter pins that you clinch in place. One half is driven into the back board; the other half goes into the top. For now, just install the hinges in the back. The pilot hole should be tight enough that you have to drive in the hinge, but not so tight as to split the board or bend the iron. I bore a test hole in scrap to get the right size. Bore the pilot hole  $\frac{3}{8}$  in. from the back's top edge and at a downward angle.

Knock the gimmals into the holes, with their loops oriented vertically. Once they're in, spread their tails apart. I use pliers to bend the tips around. Before clinching the tips—driving them back into the box—see that the heads of the gimmals are just under the top edge of the box. Too low is more of a problem than too high. You can knock higher ones down, but you can't bring low ones up.

## Bottom board nailed on

Now that the sides are assembled, it's time to make the pine bottom. Because of all the handwork you've done, you want to be

**Bottom gets a bevel.** After tracing the perimeter of the box onto the bottom, bevel the bottom's overhanging front and ends. Don't plane beyond the layout lines, or you'll create a gap under the box carcass.



**Nail the bottom in place.** Follansbee hammers two blacksmith-made nails into the front and back and two into each end. Before driving the nails, bore pilot holes and create countersinks for the nail heads.

# Embellish the lid



**Profile starts with a rabbet, ends with a roundover.** The lid's quarter-round has a fillet above it, so the first step is to cut a rabbet. To finish the shape, Follansbee uses a smoothing plane to round over the top corner.



**Thumbnails and echoes on the top too.** Carve the ends of the lid just like you did the ends of the front. Again, eyeball the spacing.



able to fit the bottom board to the box you made, not the one you planned. Place the box carcass on top of the oversize bottom board with the two flush at the back. Scribe around the box sides, inside and out. Then mark the overhang.

Saw and plane the bottom to length and width. Then, using the layout lines on the bottom board, bore pilot holes for the nails that will fasten it to the box. Then plane the bevel.

I make countersinks for the nail heads using a gouge to carve in a slight divot. Now transfer the hole locations to the bottom edge of the box. Bore the pilot holes in the box with a smaller bit than you used for the bottom. Finally, nail the bottom in place.

## Last, the lid

On historical examples of these boxes from New England, the lids are often pine. In old England, they're all oak. Either way, they offer an excellent chance for more decoration. On the ends of the lid, I punch out thumbnail cuts, and just inside those I use



**Nail cleats to the top.** Because Follansbee uses a wide single board for the lid, he uses cleats to help keep it flat. These have decorative ogees at the front. Drive overlong nails through the cleat and the top.



**Clinch the nails with a hard backstop.** After bending the nail's tip over, hammer it back into the lid. Use a metal stop, like this benchdog, to back up the nail head.

# Install the clinched hinges



**Mark the hinge location.** Pressing down firmly on the lid, Follansbee scribes the back overhang of the lid and the eye of the hinge installed into the back. This guides him when boring the hinge's pilot hole in the lid.



**Install the hinge in the lid.** It's easiest to press the lid onto the hinge from above. A piece of scrap protects the lid from the hammer blows. When that's done, clinch the hinges in place.

the same gouge to punch an echo. At the front of the lid is a quarter round and fillet.

Because my top is a single board, it needs something to help keep it flat. I nail oak cleats on either end. These cleats have decorative ogees cut into their front ends. Leave  $\frac{1}{16}$  in. or more between box sides and the cleats. It's best if the cleats are inset from the ends of the lid, not flush. □

*Peter Follansbee wrote Joiner's Work (Lost Art Press, 2019) and regularly posts on his blog, [pfollansbee.wordpress.com](http://pfollansbee.wordpress.com).*

