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contents

up front

features

The Taunton Press
Inspiration for hands-on living®

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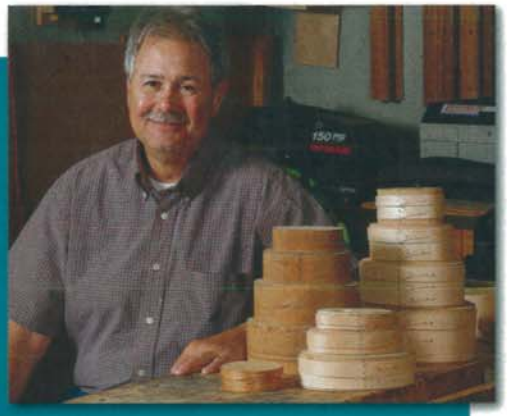
in the back

contributors



Pete Baxter (*"Make a Shaker Box"*) is a first-generation woodworker specializing in Shaker chairs and oval boxes. The lifelong resident of Seymour, Ind., has deep roots in the community. His 700-sq.-ft., white block workshop was built by his maternal grandfather in the early 1950s as a cottage for Baxter's newlywed parents. Though the building was once located in the "country" outside the Seymour city limits, over time the city has grown and now surrounds it. The shop sits on a small rise overlooking the remnants of a once two-story horse barn that now holds stickered maple, walnut, and cherry boards. Baxter also operates an appointment-only gallery in the heart of the historic district in another building that has been in his family since 1940. His work has earned him membership into both the Indiana Artisan organization and the Kentucky Guild of Artists and Craftsmen.

Known to clients and fellow woodworkers as "Lord Godfrey," **Ian Godfrey** (*"Double Bridle Joint"*) has been building elegant custom furniture in British Columbia since the mid-2000s. When he's not in his shop, you are likely to find him at a computer workstation, creating equally elegant and visually animated advertisements for Canada's power industry and other clients. Why "Lord" Godfrey? "It started as a joking reference to a character from the World of Warcraft video game, and it stuck," he says.

At the rural Ontario workshop of **Michael Fortune** (*"User's Guide to PVA Glue"*), you are likely to run into a merry band of woodworkers from near and far. Aside from one or two assistants, Fortune has opened his doors to a series of lucky interns. They usually meet him at one of his far-flung classes, and find a way to spend a month or two at the Fortune homestead, trading cheap labor for tips and training. Posing here are, from left, longtime assistant Scott Lewis, intern Lynn McKnight, Fortune, and assistant-in-training Peter Rodin.

Craig Thibodeau (*"Beautiful Cases from Plywood"*) is a professional furniture maker in San Diego. He says that the recent economy has meant fewer clients looking for high-end work, but the ones who do appear "are interested in something special." Having a good website with lots of high-quality photos of your work is essential, he says. A couple of years ago that website (ctfinefurniture.com) landed Thibodeau his greatest commission ever, when a wealthy client on the East Coast ordered a houseful of furniture, 60 pieces to date.

For more information on our contributors, go to FineWoodworking.com/authors.

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Make a Shaker Box

Master the basics, and you'll be building these iconic boxes in bunches

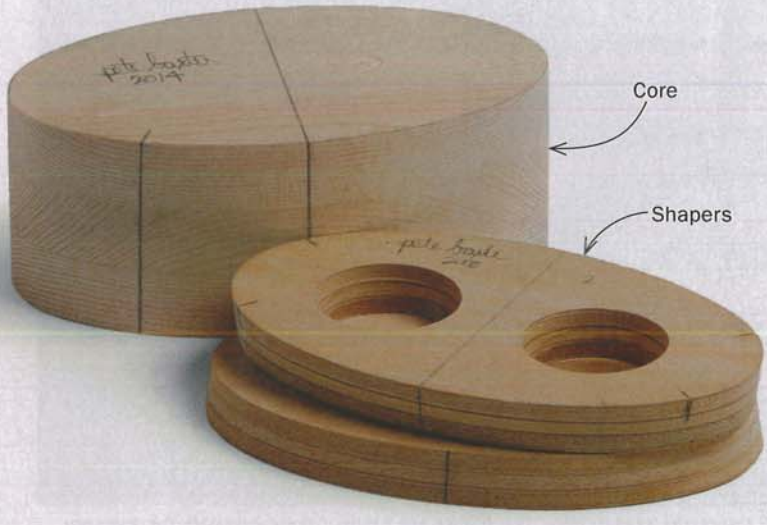
BY PETE BAXTER

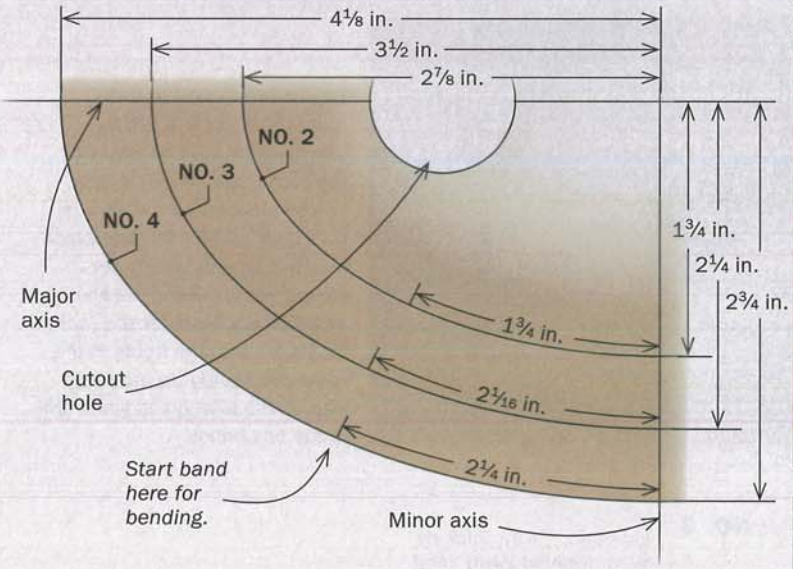
At its best, Shaker design is a harmonious marriage of functionality, simplicity, and elegance. There may be no better embodiment of that harmony than the oval boxes the Shakers made to hold everything from sewing notions to seeds. Thankfully, Shaker craftsmen also had a good eye for simplifying construction, so the box is not difficult to make. The sides and top are made from thin pieces of straight-grain hardwood, called bands, soaked in hot water and then bent around a form. After tacking the box band together, drying forms are pressed into it. The lid band is bent around the box band and dried in place,

Photos: Matt Kenney; drawings: Kelly J. Dunton

Bending and drying forms come first

It takes two steps to turn a thin band of wood into a Shaker box. First, the wet band is bent around a form, called the core. After the ends are tacked together, two drying forms, called shapers, are put inside the band. These give the box its iconic oval shape.





*Enlarge 133% for full-size pattern.

CORE/SHAPER PATTERNS

The Shakers made oval boxes in eight sizes. The three sizes here, Nos. 2, 3, and 4, are neither too small nor too big—just right for use around the house.

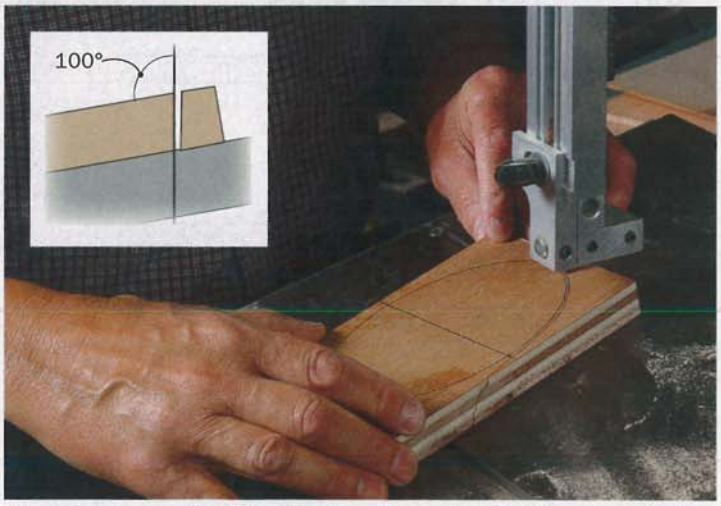
too. Panels are fitted to the top and bottom after the bands have dried. You need a few specialized tools—a water tray for soaking the bands and an anvil for peening over the tacks that hold the bands together—but I'll tell you where you can get them. Once you have these tools, you'll be making boxes in bunches.

Heated plies are easy to bend

At the heart of the Shakers' technique are the bending form, called the core, and the drying templates, called shapers, that give the box and top their distinctive oval shape. You need one core and

Cut out the core. *The core is sized to match the internal dimensions of the box. Cut close to the line, and then sand to it. It doesn't have to be perfect, because the core is just a tool for flexing the band into an oval.*

Trace the shaper from the core. *You need two shapers. One is inserted from the top, and the other from the bottom. Drill two finger holes in each shaper, so you can pull it out after the band dries.*



The sides are angled. *Beveling the sides makes the shapers easier to insert and remove from the box band. Sand the edges and take care to create fair curves, as the shapers form the box.*

Make and shape the bands

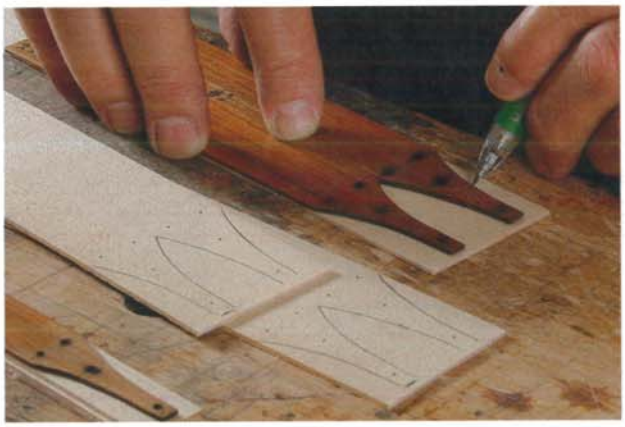
Although function always trumped form for the Shakers, they still knew how to make things beautiful. Cutting the exposed end of the band into swallowtails not only minimizes the chance that the band will crack along the grain, but it's also an elegant touch.

Mill the band stock. *For the boxes shown here, the bands are 1/16 in. thick—too thin for a planer. So after resawing the bands, remove the sawmarks with a drum sander or handplane.*

SOURCE OF SUPPLY

Shakerovalbox.com

You can find all of the tools and hardware you need to make Shaker oval boxes at The Home Shop, which sells everything from water trays (starting at $38 for a 32-in.-long galvanized steel tray) to cores, shapers, copper tacks, and pegs.

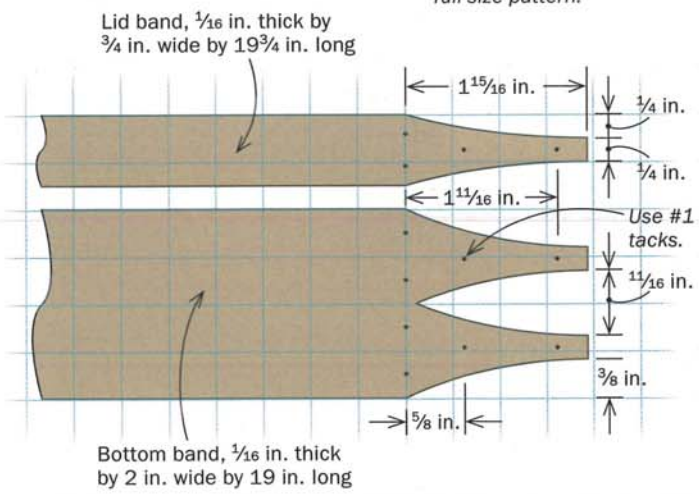


Lay out the swallowtails. *A master template allows you to make several boxes of the same size quickly. Use a mechanical pencil (0.5mm or 0.7mm thick) for its consistent line, which results in fairer curves when cutting out the swallowtails. Transfer the tack locations, too. The holes in the template should be the same size as the pilot holes you'll drill in the box bands.*

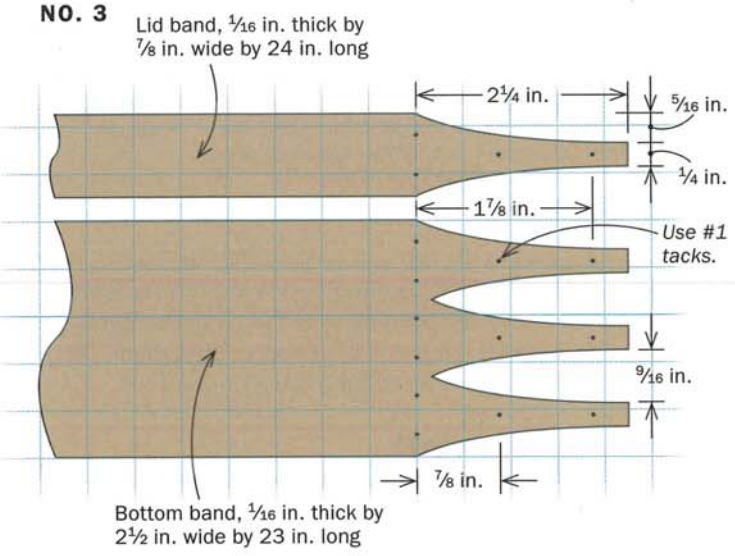
SWALLOWTAIL TEMPLATES

NO. 2

**Enlarge 200% for full-size pattern.*



NO. 3



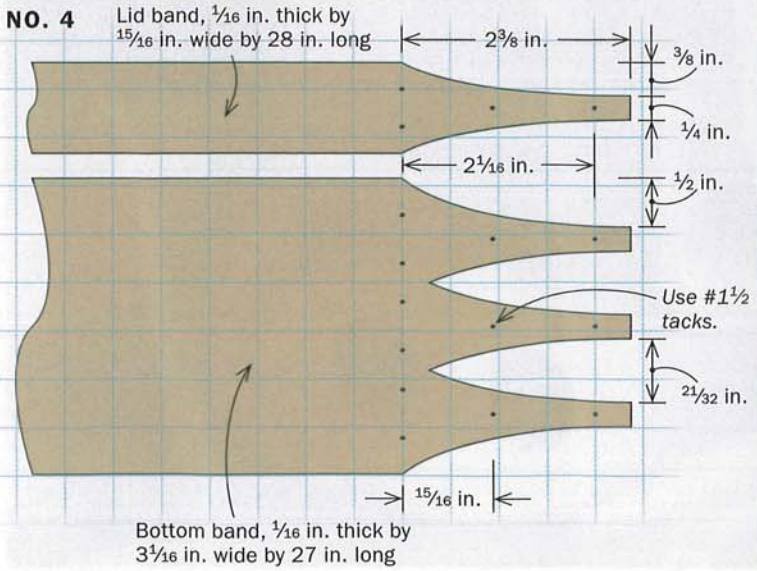
Feather the ends on the inside face. *Use a horizontal belt sander. A block spreads pressure and produces a more consistent taper. The taper makes it easier to cut the swallowtails, too.*

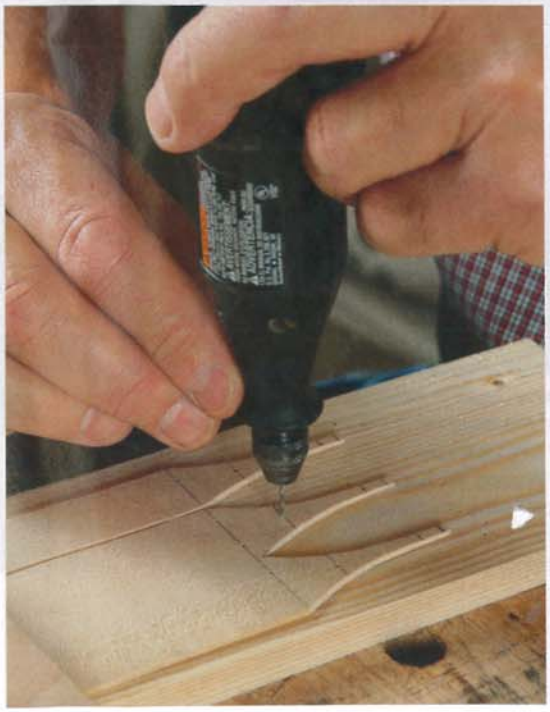
Cut the swallowtails. *Clamp the band between a backer board and hardwood "holddown." Use a new blade in a utility knife and move the backer board after each set of tails so that the blade won't fall into a kerf already there and get pulled off the layout line.*

two shapers for each box size. If you are making more than one box of the same size (it's really no harder to make several than it is to make one), you'll need one additional pair of shapers for each box you plan to make. You can use the same core for all of them. Finally, you'll need to make templates for the swallowtail patterns.

Now make the lid and bottom box bands. I start with the bottom band (you'll see why later). Cherry and maple are the traditional woods for the bands. Use straight-grain stock, which bends the best, and mill it to 1/16 in. thick. I choose stock that is wide enough for both bands so there is a nice grain match between them. Use a template to trace the swallowtail pattern on the end of the band. Taper the ends of the band on the inside face from the main tack line to the end, then cut the swallowtails and drill pilot holes for the tacks. Then put the band into the hot water for a 5- to 10-minute soak. When you pull out the band, quickly

Bevel the edges. *Hold the blade perpendicular. Believe it or not, the blade will flex a bit as you pull it, resulting in the slight bevel (1° or 2°) that you want. Be careful at the tip. It needs to be 1½ times as wide as the tack head.*





Drill pilot holes. *Be sure to hold the drill (a Dremel in this case) perpendicular to the band.*

Bend each band

The bands are soaked in hot water so they bend easily. To minimize breaks when you bend, make the bands from straight-grain, quarter-sawn stock. Dry the band for a day or two before removing the shapers.

Hot bath. *Use distilled water (to prevent mineral stains) heated to at least 180°F. It should take no more than 5 to 10 minutes to make the band pliable (right). Wrap the band around the form (far right). Hold the inside end at the "start" line and work from there.*

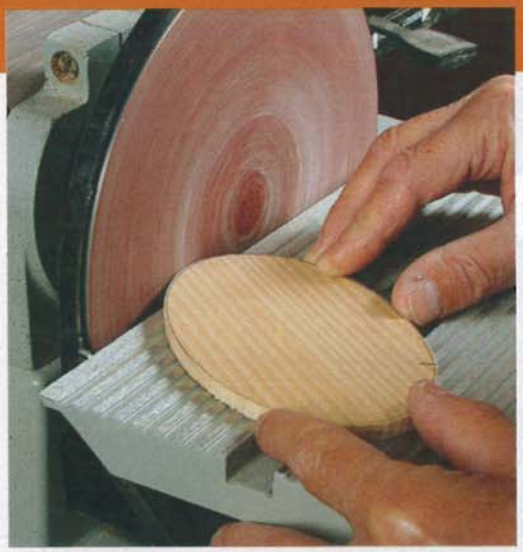
Online Extra

To watch a video on how to bend the wood for a Shaker box, go to **FineWoodworking.com/extras.**

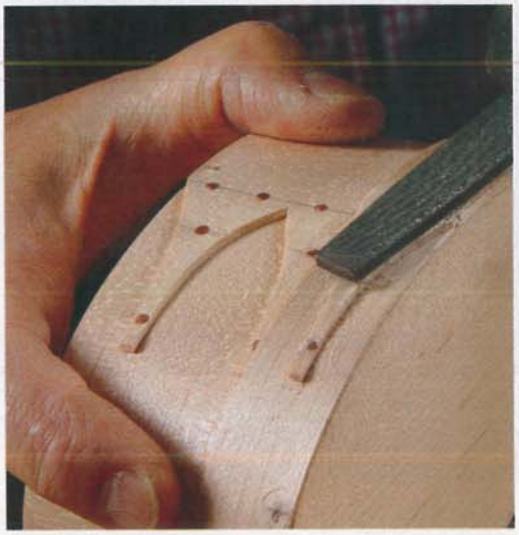
Mark and tack. *Draw witness marks where the band overlaps (right). The marks help you keep the band aligned in the oval shape after you take it off the bending form. Align the marks to tack the box together (far right). A short piece of galvanized (to prevent staining) pipe bolted to a block of wood works fine as an anvil. Start with the middle tack line.*

Insert the shapers. *Depth is important here. Don't press them in so far that the band bows out at the rim. The shaper's minor axis should align with the band's main tack line (above). Bend the lid band around the bottom band (right). To get a smoother transition at the overlap, bend the lid so that the ends overlap on the back, with the swallowtails underneath. Put them on top before you tack the lid band together.*

Add the top and bottom



Make the bottom panel. *To get the best match possible between the band and bottom, trace each band individually (far left) rather than using a pattern. Sand it to the line (left) with the bottom 90° to the sanding disk.*



No glue needed. *The bottom goes in dry (far left) and is held in place with copper shoe pegs. After the bottom is in, drill pilot holes for the pegs with a #56 bit. Driving the pegs flush with a hammer eventually results in a damaged box, so leave them just a hair proud and clean them up with a small bastard file (left).*

bend it around the core. Put a witness mark where the two ends overlap (be sure to mark both ends of the band), then take the band off the core. Realign the witness mark and tack the ends together on an anvil. Now press one shaper in from the top and one from the bottom. The lid band is made the same way, but instead of bending it around the core, bend it around the box band. After tacking it together, put it back on the bottom band and let it dry in place.

The Shakers most often made the top and bottom panels from quartersawn white pine, and that's what I've done here. After it has dried for a few days, place the band on a piece of stock, and trace around the inside. Cut out the panel and sand to the line. Press the panel into the band until it's flush with the band's edge. Drill pilot holes for the copper shoe pegs, then drive in the pegs. Do not use glue.

If you like the look of natural wood, finish the box with wipe-on polyurethane. But don't be afraid to paint your boxes with milk paint, as the Shakers were fond of bright colors. □

Pete Baxter of Seymour, Ind., is a professional furniture maker who specializes in Shaker oval boxes and rockers.

Add a handle with the same techniques

The handle is made the same way as the box, but it is bent and dried on one form. Baxter drills holes in the form so he can clamp the handle in place to dry. Like the bands, it takes a day or two. He uses copper tacks to attach the handle.