

# A Box Worth Repeating

A piece this beautiful shouldn't be one of a kind

BY LAURA MAYS



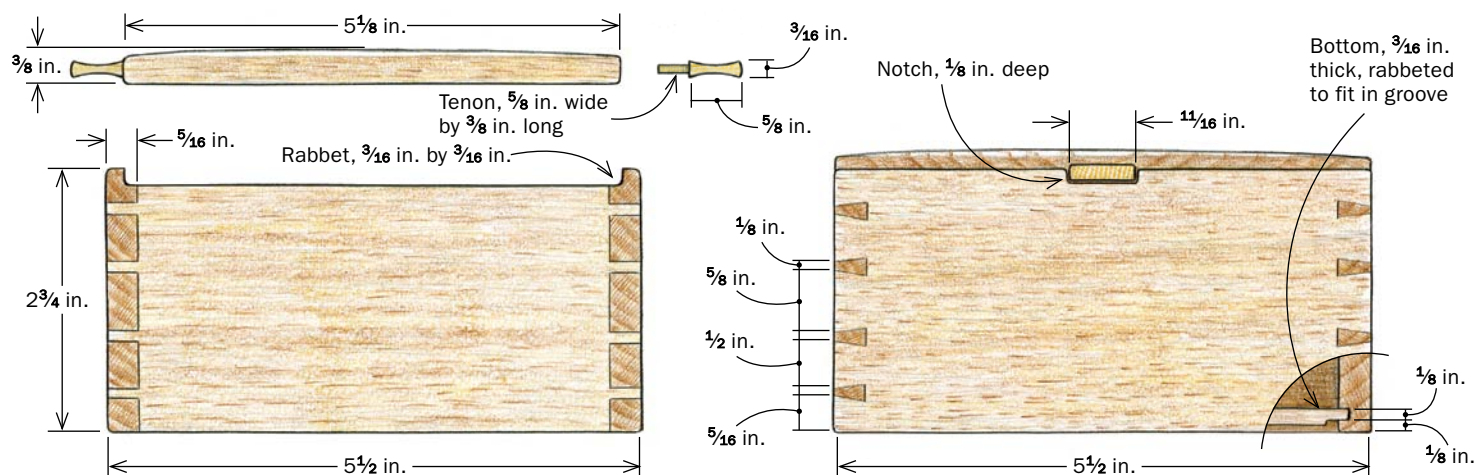
I first made this box several years ago as part of a series for an exhibition organized by the Crafts Council of Ireland called "Of Colour in Craft." Artisans in various disciplines were asked to make pieces that used color prominently. I chose to make identical boxes in 10 species, each a different color.

Boxes are a great vehicle for exploring design ideas in a series (see "Designing in

matched sets..." p. 49). Small and simple in form, they can easily be grouped to create an arrangement with a strong character of its own. Making boxes also is a good way to spend time between bigger projects, to use leftover wood, or to make gifts.

This square, dovetailed box is half as tall as it is wide, with a drop-on lid that is

slightly pillowed. The lid has small handles to lift it off and help hold it in place. The project offers a chance to practice hand skills and to execute the small-scale details that make all the difference. It is very satisfying to make.





# Fine dovetails

The foundation of the box's beauty lies in careful grain selection and neatly executed dovetails.



TIP

## HOW TO FIND THE BEST GRAIN

Simple cardboard window frames help Mays to select and mark out the material for the box sides and lid.



## Mill and mark, then cut the joinery

This box only uses about half a board foot of lumber. If you're making a set like mine, you'll want variety. Trawl through your scrap pile (and those of your friends), and scour the odds-and-ends bin at the lumberyard for pieces with great grain patterns.

Rough-mill the stock oversize by about  $\frac{1}{8}$  in. in thickness and width. Don't cross-cut the sides to length yet; they'll be too short to go through the planer for final milling. Sticker the wood and let it sit for several days before thicknessing to final dimension. Afterward, lightly handplane what will become the internal surfaces of the box to get them very close to final prep. This is also a good point to confirm the orientation of the workpieces to avoid confusion when cutting the joinery.

At the tablesaw, rip the sides to width and crosscut them to just over finished length. I trim them to exact length on a shooting board, then check the ends for square. If they're out of square, the box will be, too.



**Just a hair wider.** To mark out for the shoulders, Mays sets her marking gauge just wider than the thickness of the stock. This makes the tails and pins protrude slightly beyond the outside surfaces of the mating pieces.



**Saw the pins.** Mays uses a saw that has no teeth at the front or back of the blade (\$139, Glen-Drake Toolworks; [play-glen-drake.com](http://play-glen-drake.com)). The design lets the saw build momentum before engaging the teeth in the work.



**Transfer the layout.** Clamp the pin board to a piece of wide stock held in the vise. Blue tape on the backer board shims the pin board forward so it aligns with the scribed baseline.



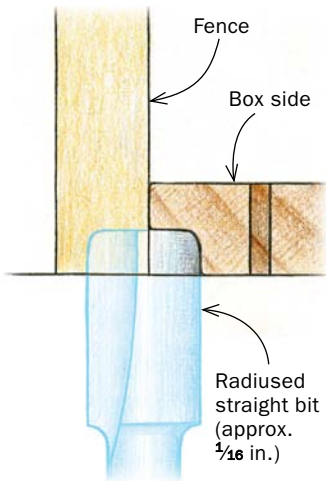
**Flush the bottom edges.** Dry-fit the box and flush the bottom edges so the box sits level (below).



# Make way for the lid

**Before gluing up the box, Mays routs grooves for the bottom and gently radiused rabbets to hold the lid.**

## RADIUSED RABBETS



**Create a shelf for the lid.** To cut the gently rounded recesses for the box lid, Mays uses a high-speed-steel straight bit (right) onto which she has ground a slight radius.



## Small details make a big difference

When dovetailing, I cut pins first, using a story stick for fast, consistent layout. After sawing the pins, I use a coping saw to remove most of the waste, then pare to the scribed shoulder line with a chisel.

To hold the pins securely on the tail board while I transfer the layout, I clamp a wide piece of scrap vertically in the vise. Next, I clamp one of the tail boards to the benchtop, with its end butted against the piece in the vise. Finally, I clamp the mating pin board vertically to the stock in the vise with its end grain resting on the tail board, thus firmly locating the pins above the tails. I saw the tails and pare them to fit.

With the dovetails done, it's time to prep the sides to accept the bottom and lid. The bottom is rabbeted into grooves routed into the sides. Dry-fit the box and plane the bottom edges flush for a consistent reference when routing the grooves. On the tail boards, the grooves are stopped; mark out their ends with the box together.

To hold the top, I routed a rabbet on the top edge of each tail board. I used a straight bit and rounded the cutters for a slightly radiused inside corner. The lid handles rest in notches in the top of each tail board. To create them, hog away the waste at the bandsaw and clean up the sawmarks at the router table. Before gluing up, prepare and pre-finish all the inside



**Notch for the handle.** After marking out the notch (above), Mays removes most of the waste at the bandsaw, then cleans up the cuts at the router table (right).



**Two edges of the lid rest on the sides.** To make room, trim those two box sides flush with the bottoms of the rabbets on the adjacent sides.



**Clamp thoroughly.** Mays applies pressure in both directions on each joint, checking for square and adjusting the clamps as needed. She uses cork-faced cauls to accommodate the protruding tails and pins.



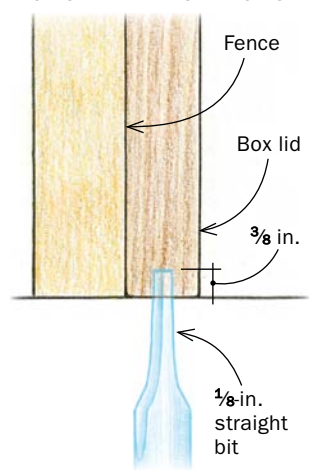
# Shape the handles

Mays cuts multiple handles from a single blank. The handles help lift the lid, and because they are recessed snugly into the sides, they align the lid precisely and hold it in place.

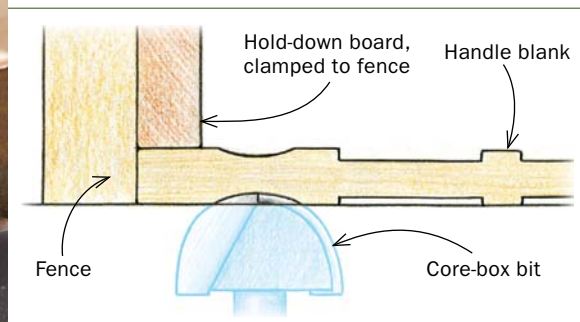
**Handle mortises.** Set the lid in place to mark the mortises for the lid handles (right). Using a straight bit at the router table, make stopped cuts into the lid's edges to create the mortises (far right).



## STOPPED MORTISES



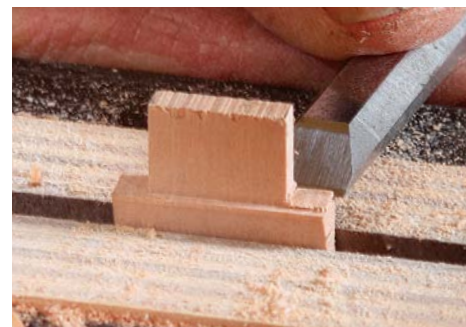
**Create the finger-hold.** After routing shallow dadoes to shape tenons into the pull blank, Mays uses a core-box bit to create the thumb depressions in the pull's body.



**Fine-tune the shape.** After routing and further shaping the thumb depressions, use a block plane and sandpaper to round the front surfaces on the handle blank.



**Cut the handles from the blank.** After ripping two rows of handles from each blank, crosscut the individual ones free from each row.



**Create the shoulders.** Saw away the waste on each end of the tenon. Then pare the excess flush.



# Pillow the lid

**Dry-fitted handles locate the lid precisely, so it can be marked and cut to width for a perfect fit. The pillowed top starts with four planed facets, which are then sanded smooth into a gently sloping surface.**

**Get a handle on the fit.** Dry-fit the handles and set the lid on the box (right). Then invert the lid and box to mark the lid for cutting to width (far right).



surfaces, and both sides of the bottom, with shellac and wax. After glue-up, clean up the outside surfaces with a plane or scraper, and sand as needed.

## Topping it off

After cutting the lid to length (but leaving it wide), I use a  $\frac{1}{8}$ -in. straight bit to rout the handle mortises.

For the handles, I started with rectangular blanks about  $\frac{1}{4}$  in. thick and  $2\frac{1}{2}$  in. wide. At the router table, rout a shallow dado that starts  $\frac{5}{8}$  in. from the edge of the workpiece. Next rout a matching dado in the opposite face. The stock that remains between the dados is the handle tenon. Test its thickness against the mortises before finishing the handles. Now rout a shallow cove, top and bottom, across the grain, and sand it to fit comfortably under the thumb.

To shape the lid, I started with a roundover bit at the router table to gently ease the edges of the underside for a snug fit in the radiused rabbet. To pillow the top, draw a pair of diagonals across the surface and a depth line on all four edges. Now plane an angled facet in each quadrant that slopes gently from the center down to the layout line on the edge. Scrape and sand to blend the facets into a gently curved shape.

Finish the lids and the exterior with shellac and wax, and glue in the handles. □

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**The lid is a pillow.** To create the rounded surface of the top, use a block plane to create facets that slope gently toward each edge of the lid. Start by working across the grain (left). Then plane with the grain to create the remaining facets (below). Afterward, scrape and sand to blend the facets into a gentle curve.







### RUNNING RIDGES

This series experiments with a ridge or narrow raised band running over the exterior of the boxes. The first one has two intersecting ridges, the second has a curved ridge, and the third has a ridge that runs around the short dimension. I feel like this series is not over—there are more variations I would like to add.

## Designing in matched sets is a balancing act

**I**n our craft, we repeat actions over and over, plane stroke by plane stroke, gaining muscle memory, trying to build the action into our very being. In this there is sameness, yet there is also change. We constantly seek feedback from our actions, altering our stance, shifting pressure, reversing direction.

This interplay between sameness and change is one reason I'm drawn to making objects in series, matched sets where the pieces aren't identical copies of one another but variations on a theme.

Each series of boxes shown here starts with an idea that is very simple but gains complexity and subtlety in the making. The pleasure is in the possibilities: "What if I do the same thing but just change this...?"

The key to making a series work lies in finding the right balance between change and sameness. Too much sameness and the series becomes overly repetitive and uninteresting; too much change and it becomes a set of separate objects.

—L.M.



### ALTERING FACETS

When I was first learning woodworking in Ireland, our instructors gave us an exercise in which we made a small dovetailed box and then planed away some of the surface to reveal the interior of the joinery. Any undercutting on the pins and tails, any ragged shoulders would be revealed. For this series, I explored the idea further by removing planar facets in different configurations, this time from small madrone boxes. Using the same species throughout puts emphasis on the different arrangements of facets.

I chose madrone because it is close-pored and holds detail very crisply.



### CHANGING COLOR

With the Color series, I kept everything the same except the wood species. The basic form of the box is very simple. To have altered other aspects or have had a more complex base object would have distracted from the main point. The series as a whole is one object, made up of a number of separate objects.