

Do It Yourself

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Inlaid Spice Rack: Case Assembly and Drawers

From "[Wood Works](#)"

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With the pieces for the frame all cut and the dowel joinery made, work can begin on assembly of the case for the spice rack. Once the case is glued up, the drawers are made from bird's-eye maple.

With the case dry-fit and clamped, the layout for the drawer dividers can be worked out. As seen in the prototype, our design calls for the center drawer to be wider than the two outside drawers (**figure A**). Once the dividers are in place, measurements can be taken for the exact dimension of the drawers.



Figure A

Materials:

- Maple stock
- Maple plywood
- Walnut dowels
- Cordless drill
- Dowel jig
- Table router; 1/16-inch bevel bit
- Table saw; cross-cut sled
- 220-grit sandpaper; sanding block
- Dead-blow hammer
- Straight-edge
- Carpenter's pencil
- Carpenter's tape
- Wood dowels
- Yellow woodworker's glue
- Clamps
- Safety glasses or goggles

Safety Alert: *Always* wear safety goggles or safety glasses when working with wood, power-tools, saws, drills, routers, etc.

Case Assembly

- Use the same dowel jig that was used earlier to drill the holes for the dowel joinery (**figure B**). As before, reference off the back of the jig for the back of the divider stock.
- Secure the jig with screws, and drill the holes in the tops and bottoms of the dividers (**figure C**).
- To ensure that the complementary holes are drilled accurately on the shelves, make a spacer from some scrap wood. The spacer references off the end of each shelf and provides for the symmetrical placement of the dividers. Once the spacer is in position, secure the jig to the shelf and drill corresponding holes (**figure D**).
- Once the holes are all drilled for the joinery, the case is ready to glue up after one final step: chamfering the edges of the case pieces and sanding them smooth. At the router table, use a 1/16-inch bevel bit to soften all of the edges (**figure E**).
- Pre-sanding all of the parts with 220-grit sandpaper will help prepare the wood for a finish, and will be much easier before the pieces are glued up.
- Once the pieces are chamfered and smooth, begin adding yellow woodworker's glue to all of the dowel holes and inserting the dowels in place.
- Add glue to the holes for the dividers and assemble the section that includes the dividers and bottom shelves (**figure F**). Use a dead-blow hammer to gently tap the pieces snugly together.
- Set the bottom shelf assembly in place on one side-piece and work



Figure B



Figure C



Figure D



Figure E



Figure F

it into position.

- Add the two additional shelves, then set the second side in place (**figure G**). Tap the second side into position using the dead-blow hammer.
- Clamp the assembly securely using two clamps for each bottom shelf and one clamp for each of the two upper shelves (**figure H**).
- Allow the glue to dry completely.



Figure G



Figure H

Building the Drawers

As the case is drying, you can start work on building the drawers. As seen on the prototype, the drawers are built from maple with a 1/4-inch maple-plywood bottom. The fronts are made from figured bird's-eye maple milled to 5/8-inch thick. The front is joined to the 3/8-inch-thick sides using reinforced rabbet joinery (**figure I**). The simple joint is reinforced with contrasting walnut dowels.

- At the table saw, rip the maple stock for the drawer sides, backs and birds-eye maple fronts to the same width -- 3-1/4 inches.
- While the stock is long, cut a 3/16-inch dado in each piece in two passes. The dado will hold the bottom-drawer panel.
- Using the cross-cut sled, and a stop-block as a guide (**figure J**), cut all of the drawer pieces to length.
- At the router table, cut a rabbet on the rabbet in the front and back pieces only. Cut the rabbet using a 1/2-inch carbide bit and make the cut in two passes, each 3/8-inch wide. For safety, use a piece of MDF to push the narrow pieces of stock over the router bit (**figure K**).
- With the drawers dry-fit and clamped together, you can take measurements for the exact dimensions of the bottom panels



Figure I



Figure J



Figure K

(**figure L**).

- At the table saw, cut the panels from 1/4-inch maple plywood.
- With all of the pieces cut, and the drawers successfully dry-fit, assembly and glue-up can begin. Apply yellow glue into the rabbets (**figure M**).
- Clamp the drawer assemblies securely (**figure N**) and allow the glue to dry thoroughly.

In the segment that follows, the drawer joinery is reinforced using walnut dowels, and the decorative, inlaid crest-rail is made.

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Figure L



Figure M



Figure N