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TOY BOX



This little chest, which can hold a bunch of easily accessible toys, turns into a convenient bench when the top is closed. And the lid is controlled by a spring-tensioned support that prevents accidental slamming on little fingers.

Next, rip and crosscut maple edge banding and glue it to the panels (Photo 2). We used 3-way clamps, but you can try bar clamps or even masking tape. Note that the top edge bands of the end panels are slightly long, so they'll be sawn at an angle when the ends are cut to shape. Also, use three 19-gauge brads partially driven into each edge band to keep it from sliding. Band all the panels in this fashion -- except the lid, which gets its edge bands after the chest is assembled.

After the glue dries, scrape off glue beads and plane edge bands flush to the panel surfaces.

Next, set the table saw miter gauge to 35 degrees and make the angled cuts on the end panels (Photo 3). Glue and clamp the edge bands onto the sawn surface. We cut the panel dados and grooves with a router and a 1/2-in.-dia. straight bit. A rectangular frame is used to guide the router to make these cuts (Photo 4). Be sure that the side rails are parallel and are spaced to fit the diameter of your router base, plus the difference between the diameter of the router bit and the width of the required dado or groove. You must precisely measure the thickness of the plywood before setting the distance between the rails. (Hardwood plywood is always slightly thinner than its stated dimension.) Tack nail a movable stop across the rails to control the length of the cut, and cut each groove or dado in two passes. Then, using a chisel, cut the ends of the grooves square.

Making The Splat Rail And Assembly

Cut the splats to shape, then smooth their edges. The pieces will be too small to clamp to a bench. Instead, use a 1/16-in.-radius corner-rounding bit in the router table for the job (Photo 5).



1--Tack nail a strip to the back of each panel. The strip should ride in the miter gauge groove as the panel is being cut.



2--Glue and clamp each of the edge bands to the panels. Note that the top edge band of the end panel is just slightly long.



4--Cut grooves and dados in the end panels with a router. The block is tacked across the rails to stop the cut.

With the dado head in the table saw, cut the groove in the top rail and the edge band on the back panel. Then cut the filler blocks to length, leaving the four end blocks 1/2 in. longer than the others. Remember to round off the rail edges before assembling the workpieces.

When the back assembly is dry, complete the project in the following sequence: Insert the back panel into the groove (Photo 7). Join the bottom and front to this subassembly, then add the second end and lay the chest on its back. Next, glue and clamp the entire assembly together (Photo 8) and check it for square. Cut the lid panel to size, glue and clamp the side bands to it and then add the front and back bands. Install the hinge and lid support, attach the standoffs and relieve any sharp corners with fine sandpaper. Finally, apply several coats of polyurethane to finish off the project.



5--Since the splats are so small, it's best to round over their edges on a router table. A ball-bearing bit usually works best.



6--Insert the splats and spacer blocks in the top rail. After the glue has dried, repeat the procedure on the back panel.



7--Begin the assembly by inserting the back into an end panel. Next, add the bottom and front, then the other end.



8--Clamp the chest using five bar or pipe clamps. Be sure to check the assembly for square before allowing the glue to set.