

Suggested procedures for building Hosanna Lutheran Faith Chests

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Faith chests are built with the intent of giving them as gifts to infants on the occasion of their Baptism. They are meant to be repositories for those articles significant to their walk with Christ throughout their lives. As such the building process should be done with care so that the quality is top notch and will withstand the wear and tear for many years.



Figure 1: Standard Faith Chest

The pattern is one that was used by Thorny Johnson and passed on to me with some instructions. The original design has been modified only slightly to enhance the beauty of the chest. A variation uses a lid center section with trim molding that is finished in stain of contrasting color. The Chest in figure 2 has such a lid. See addenda to this instruction for this variation.

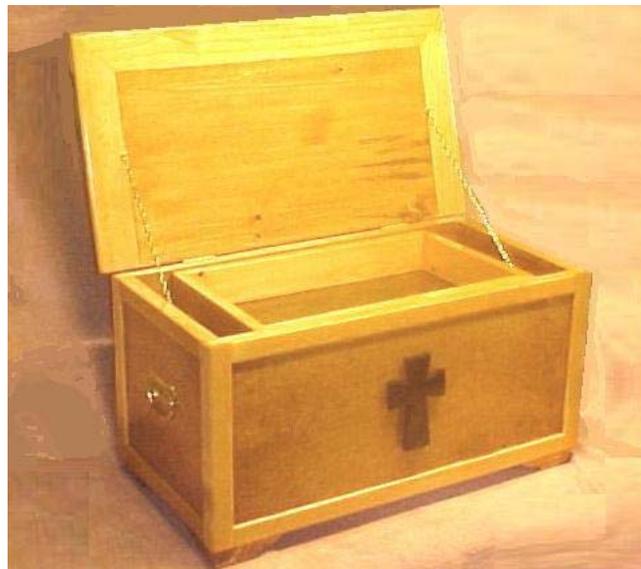


Figure 2 Faith Chest with contrasting trim

Bill of Material

I try to buy in sufficient quantity to make 4 chests at a time. This is based on the economy of buying the main plywood in 4'x8' sheets from which one can build four chests. Thus the quantities in the BOM are for four chests.

Figure 3: Bill of Materials

Quantity	Description	Comments	Source
1	4'x8' Sanded 3/4"plywood	Use Birch or Blondewood	Lowe's
2	2'x4' Sanded 3/8" Pine Plywood		Home Depot
2	2'x4' Sanded 1/4" Birch Plywood	May use Luan panel	Lowe's
4	1"x8"x6' Select Whitewood Pine		Lowe's
4	1"x4"x6' Select Whitewood Pine		Lowe's
2	1"x2"x8' Select Whitewood Pine		Lowe's
8	1/4"x1 1/4"x8' Lattice - Pine		Lowe's
2	1 1/4"x1 1/4"x8' Corner Trim - Pine		Lowe's
4 Pr	3 1/2" Chest Handles - Brass		Ace Hardware
4 Pr	2 1/2"x1 3/8" Brass Butt Hinges		Lowe's
8 Ft	Brass Clock Chain	Links are about 1/4" long	Lowe's
16	3/4"x#8 RH Brass Screws		Lowe's
16	#8 Brass Washers		Lowe's
40	1"x#6 FH Steel Screws		Lowe's
32	1 1/2"x#8 FH Steel screws		Lowe's
25 FT	Iron-on 3/4" Birch Veneer trim		Lowe's
48	1 1/2" Finish nails		Lowe's
1	Bottle Tite Bond Glue		Lowe's
1 Qt	Golden Pecan Stain		Lowe's
1/2 Pint	Golden Oak or Red Mahogany Stain		Lowe's
1 Qt	Semi Gloss Polyurethane Varnish		Lowe's

General Hints

I generally sand each component wood piece as I cut it, before any assembly, using 60 grit and then 220 or 240 grit. The plywood should only require sanding with the finer paper. Joints will need to be sanded after assembly.

All glued joints should be clamped for at least two hours before removing clamps except as noted for the Lid and Feet.

Design sketches are **not** to scale.

Suggested Construction Procedure

1. Make the lid

Use 1x8 whitewood joined with #10 biscuits spaced at 2 1/2". Dry fit with biscuits to check for proper fit and closed joint. . If OK, apply glue to one of the pieces and insert biscuits. Brush the glue evenly on the joint and the biscuits. Assemble to other piece, wipe off excess glue with a wet rag, and lay on flat surface. Clamp the joint firmly with at least three clamps. Then clamp the assembly to the table using 2x4s to ensure flatness of the lid.

Note: Let dry while clamped for 24 hours to prevent warping. After drying period and before assembly, rout front and sides, both top and bottom with 3/8" round-over bit.

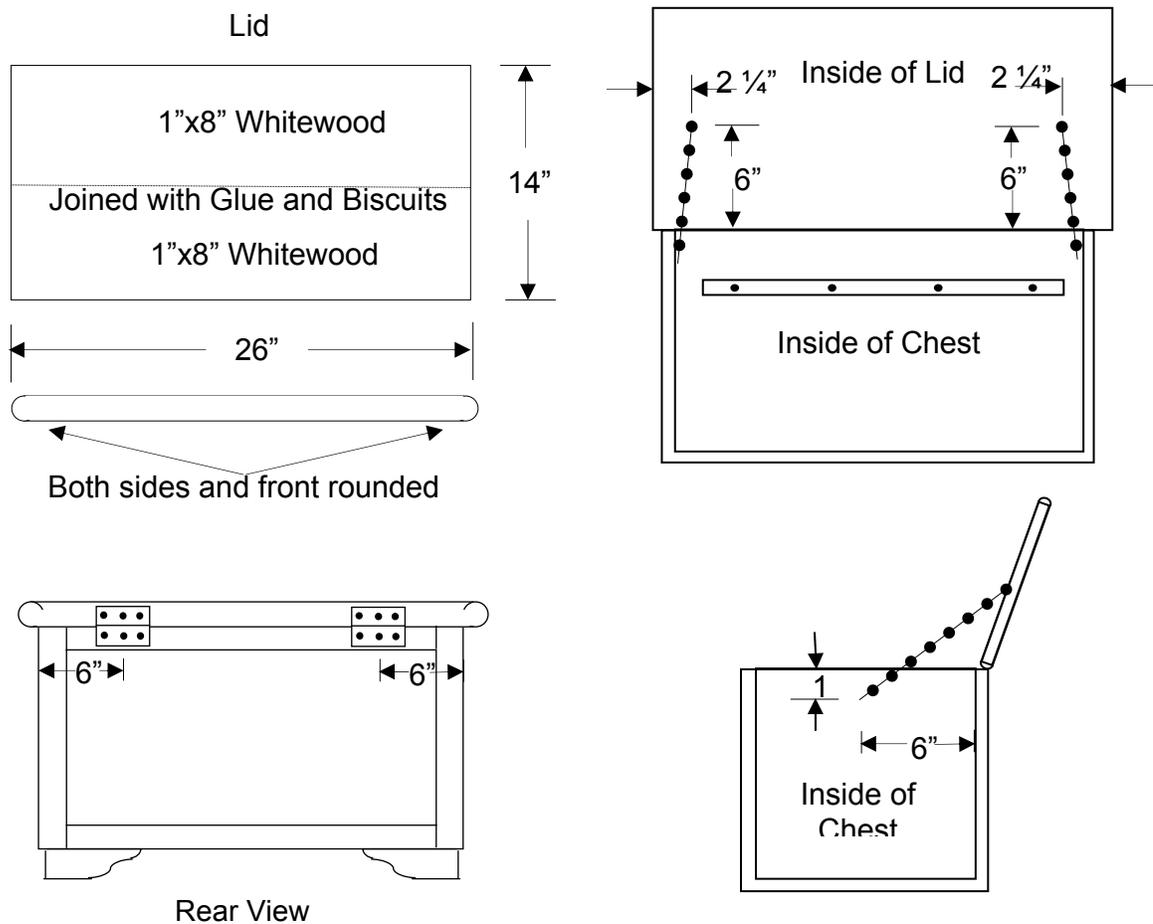


Figure 4: Lid construction and assembly

2. Make Feet and Cross

Cut feet pieces from 1"x2" pine using the pattern in figure 5. Assemble two pieces with 45° glued miter joint. Drill and countersink holes for mounting screws.

The cross is made from 1/2", Oak, cedar or mahogany. Make a full size pattern from the sketch in Figure 5 to outline and cut the cross. Use the pattern to drill 1/4" deep pilot holes on the back of the cross and front of box for the mounting screws. Finish the cross with either golden oak or red mahogany stain. Let dry and then apply three coats of semi-gloss polyurethane varnish. Lightly sand in between each coat of varnish.

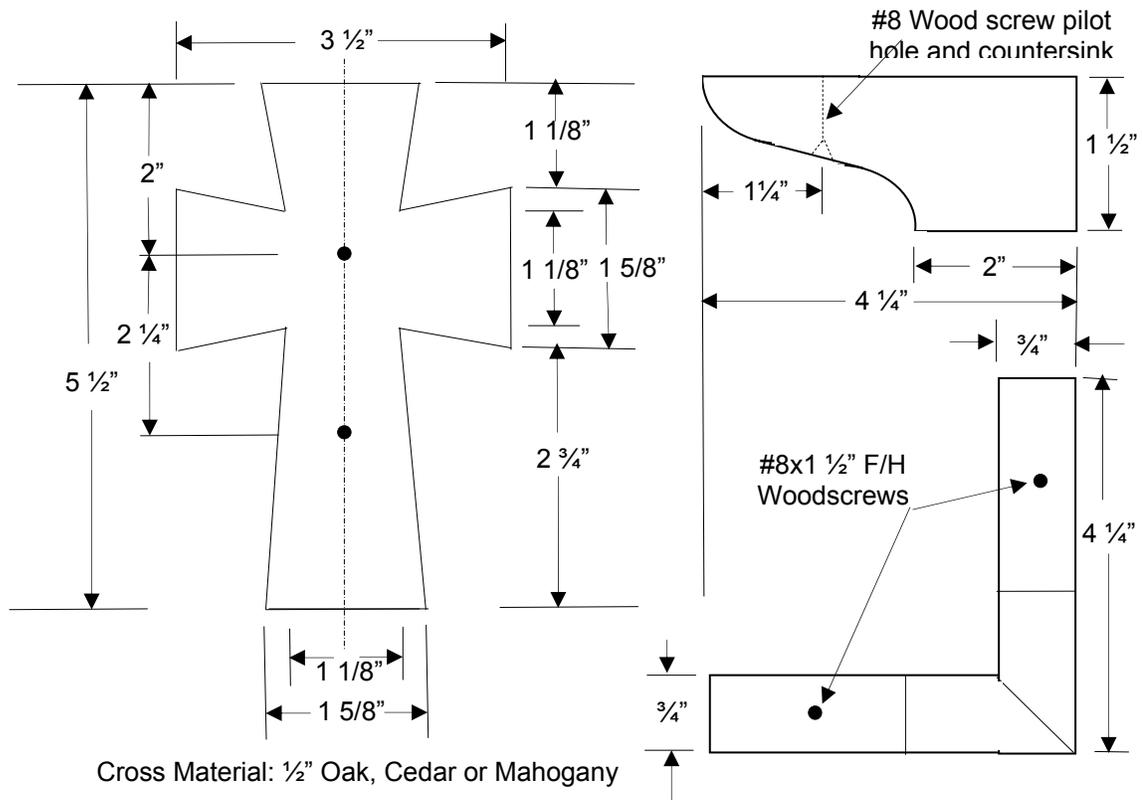


Figure 5 Cross & Feet Plan

3. Make the box

Cut the front, back and sides from $\frac{3}{4}$ " plywood.

Cut the bottom tray from the $\frac{3}{8}$ " Pine Plywood.

Rout rabbets on the ends of the front and back.

Rout a $\frac{3}{8}$ "x $\frac{3}{8}$ " dado in the front, back and each of the sides to hold the bottom tray.

Rip the 1"x4" Pine to 2 $\frac{7}{8}$ " Width. These pieces should be reserved to make the upper tray. The excess from the rip should then be cut to length for use as the upper tray rails. Drill and countersink screw holes in the rails and mount them to the inside of the front and back panels using 1"x#6 F/H Steel Screws. Do not glue the rails.

Drill and countersink the screw holes in the front panel for mounting the cross. Don't mount the cross yet.

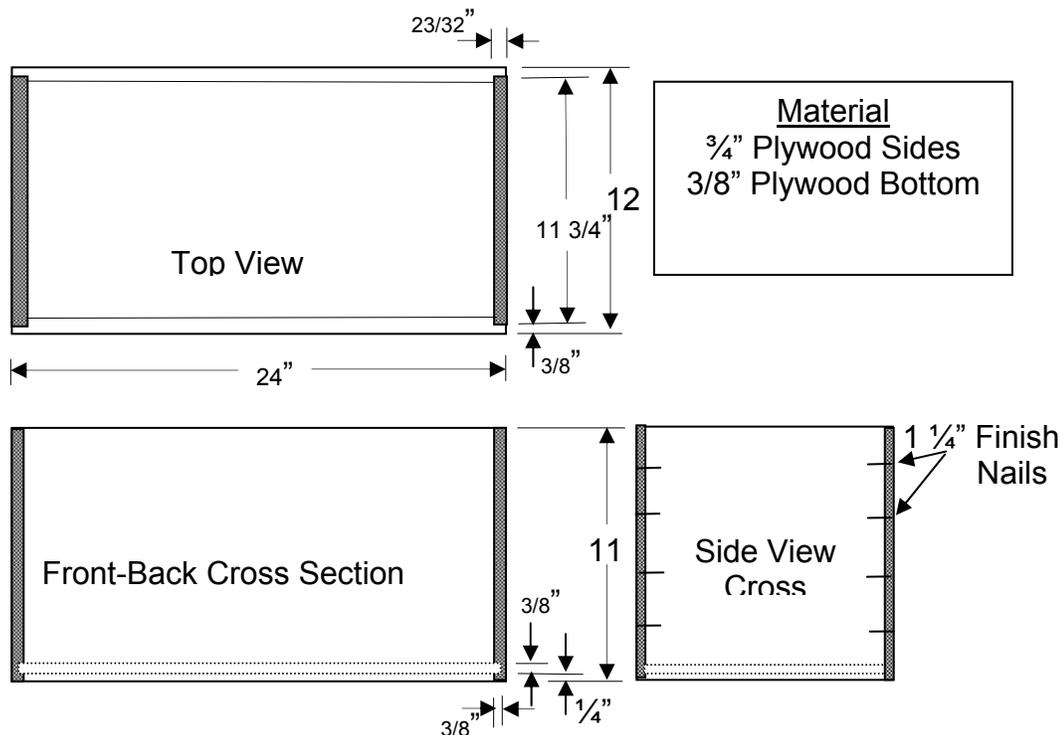
Drill chain mounting pilot holes to $\frac{1}{2}$ " depth for #6 screws on the inside of the sides.

Drill pilot holes to depth of $\frac{1}{2}$ " for #4 screws for mounting the handles on the outside of the sides.

Assemble box with the 2 sides, front, back and bottom tray using glue on all joints. Clamp with multiple clamps to assure that all joints are tight. After drying period, remove clamps and insert 1 $\frac{1}{4}$ " finishing nails to reinforce the vertical joints.

Apply the birch veneer tape to the top edges of the plywood. Trim the veneer.

Figure 6: Box Construction



4. Make the upper tray

Cut the pieces from the 1x4 rip to length using 45° miter cuts.

Note: The length of the end pieces is a nominal 10 3/4" but should be trimmed to allow 1/8" clearance, front to back of the inside of the box.

Rout all sides to make a 3/8" deep dado with width to match thickness of the Luan panel.

Cut the 1/4" Luan panel to size to match the lengths of the tray sides

Assemble the tray with glue on all joints. Use multiple clamps to ensure tight square miter joints on the 4 corners.

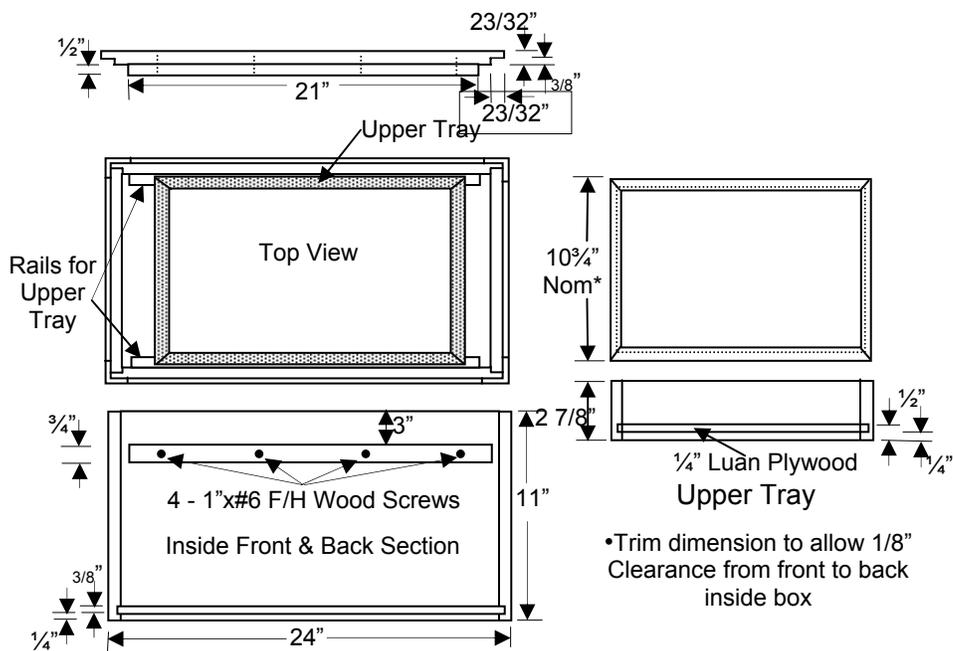


Figure 7: Tray and Tray Rail Detail

5. Adding trim to the box

Cut the corner molding to length (11 1/4") and glue to corners of the box. The molding should be flush with the top of the box and project 1/4" below the bottom.

Rout one edge of the lattice with a 1/8" round-over bit to match the rounding on the corner molding. Cut to length and trim to fit snugly between the corner molding on all sides at top and bottom of the box. Glue top pieces to be flush with top of the box. The bottom pieces should project 1/4" below the box to match the projection of the corner molding.

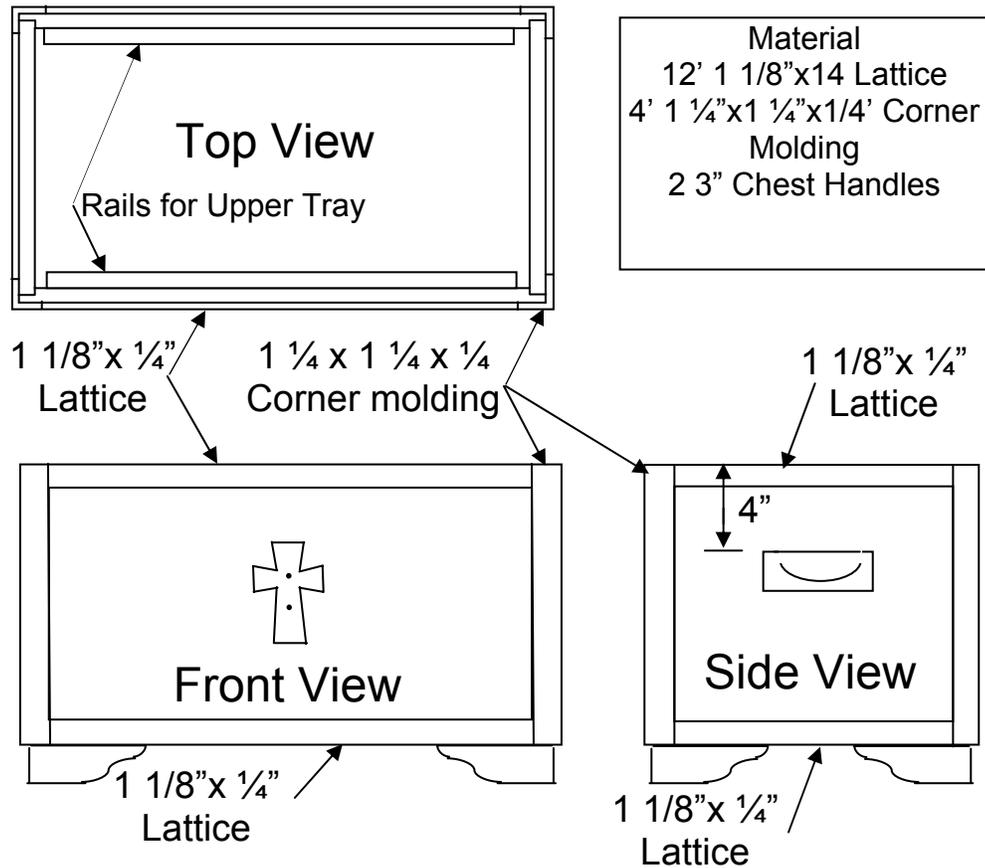


Figure 8: Adding Trim Molding

6. Assembling the Chest

Attach feet to the bottom of the box using glue. Clamp the foot to the box and then insert the screws to securely hold the foot to the box. The clamp may then be removed.

Mount Lid to the box using the pair of brass hinges. See Figure 4

Attach one of the 12" chains to the box and the lid. I usually add the second chain after finishing is complete. See Figure 4

7. Finishing

Do final sanding of all surfaces with 150 or 220 grit paper.

Apply Pre-stain Wood Conditioner to all surfaces

Apply Golden Pecan Stain to all surfaces

Apply 3 coats of Semi-Gloss Polyurethane varnish.

Note: Follow manufacturer's instructions for all finishing steps. I use Minwax products and lightly sand with 400 grit paper between coats of varnish.

8. Final Assembly.

After finish is thoroughly dry, mount second chain between box and top

Mount chest handles in pre-drilled pilot holes on the sides of the chest.

Mount cross on the front of chest using pre-drilled pilot holes.

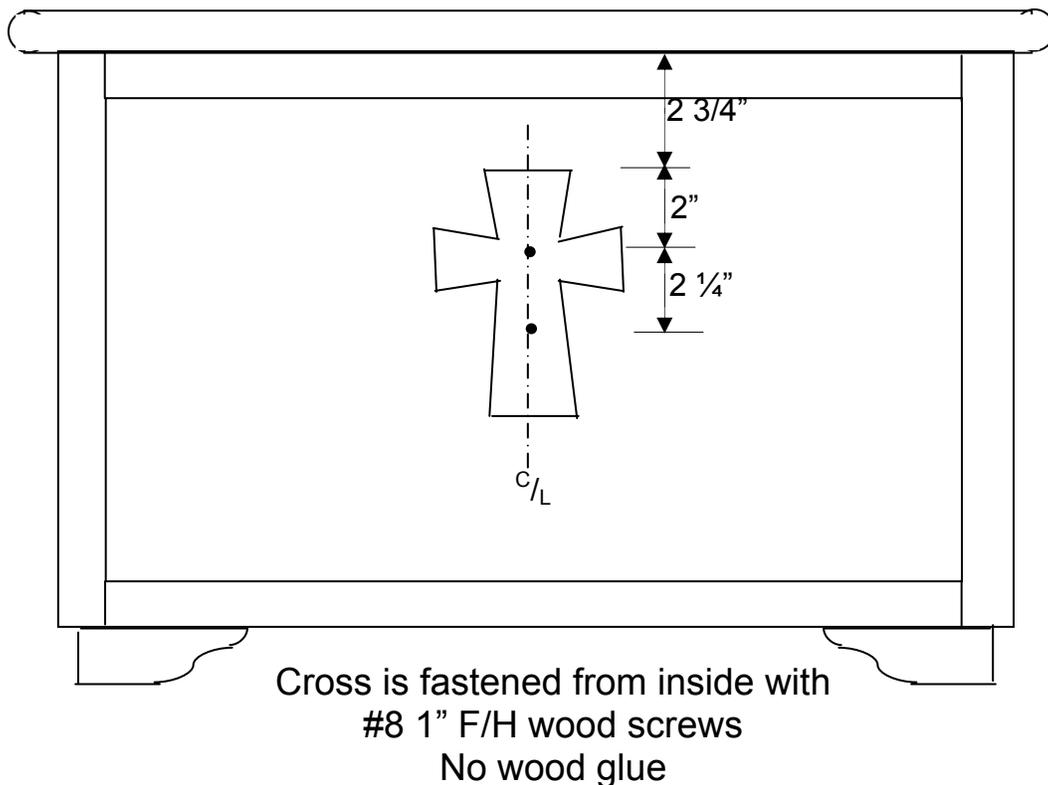


Figure 9: Cross Positioning and Mounting

Your Chest is now complete

Addendum 1: Procedures for Chest with contrasting trim.

1. General

Most of the procedures above apply to this variation of chest design. This addendum contains only the differences needed to do the features that are necessary to obtain the contrasting trim. The main difference is in the joining and finishing of the lid. I also stain the box, feet, trim corners and lattice before box assembly

2. Make the lid

Use 1x6 whitewood joined with #10 biscuits spaced at 2 ½" or ¾" Birch plywood to make the main centerpiece of the lid. If using the whitewood, dry fit with biscuits to check for proper fit and closed joint for the joined components. . If OK, apply glue to one of the pieces and insert biscuits. Brush the glue evenly on the joint and the biscuits. Assemble to other piece and lay on flat surface. Clamp the joint firmly with at least three clamps. Then clamp the assembly to the table using 2x4s to ensure flatness of the lid.

Note: Let dry while clamped for 24 hours to prevent warping.

After drying period and before further assembly, trim both sides to the 21" dimension. The trim for the lid is 1"X3" whitewood. The trim is joined to the main piece with # 10 biscuits. I do a rough cut to size a bit longer and then trim as necessary to obtain closed joints both along the front and sides, but also for the miter joints on the front corners. Rout the front and sides, both top and bottom with 3/8" round-over bit. Then trim the back of the lid to 14" dimension. Stain the pieces with the dark stain first with lighter pieces protected by masking tape. Remove tape and let dark stain dry. Then stain the lighter pieces. Allow to dry thoroughly before further assembly.

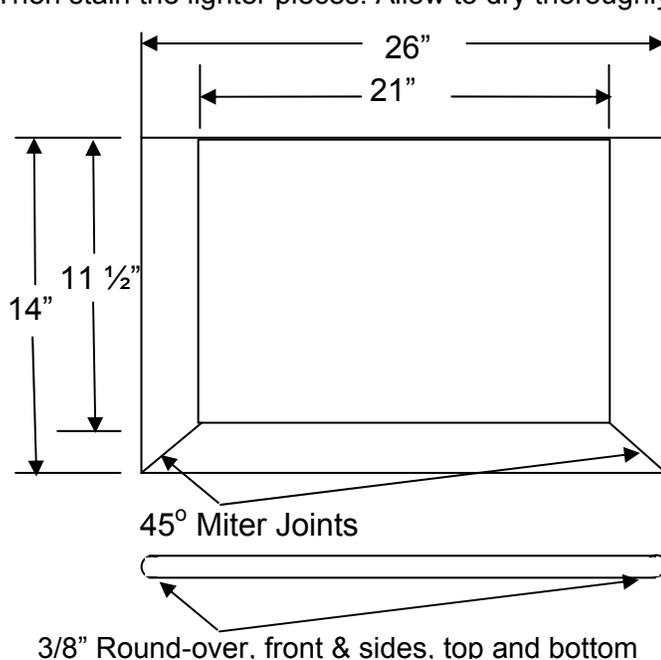


Figure 10: Lid with Contrasting Trim

3. Make Feet and Cross

Use the procedure in the basic instruction. After the feet have been assembled, stain with the desired color. Allow stain to dry thoroughly before any further assembly.

4. Make the box

Use the procedure in the basic instruction. When the box assembly is complete, stain the outside of the box with the desired color. Stain the inside of the box with the lighter color. Allow stain to dry thoroughly before any further assembly.

5. Adding trim to the box

Before gluing the pieces to the box, stain with the desired color. Allow stain to dry thoroughly before any further assembly.