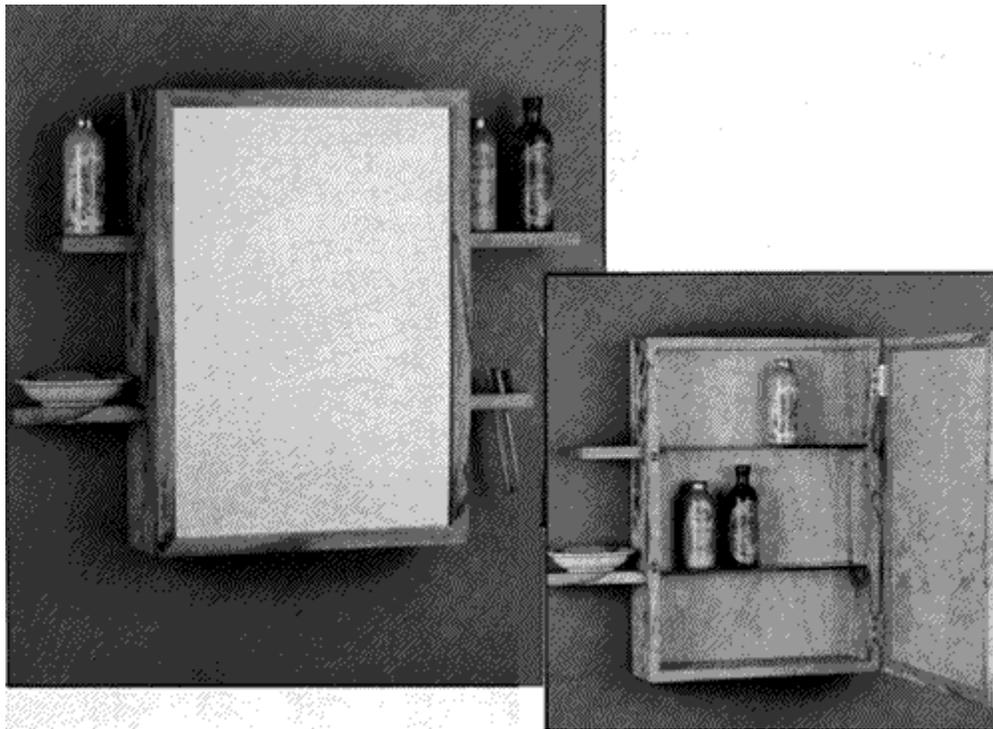


# Project 11060EZ: Contemporary Medicine Cabinet



*Function was our main concern when we designed this piece. With cantilever shelves outside and adjustable shelves inside, there's plenty of room for those many items that a medicine cabinet collects.*

*We use spalted maple for our cabinet, although just about any type of wood can be used. Keep in mind though, that the color of your bathroom may dictate the type of wood you choose.*



# Contemporary Medicine Cabinet Materials List

Part	Description	Size	No. Req'd
A	Side	3/4" x 4" x 21-1/2"	2
B	Top and Bottom	3/4" x 4" x 15-1/2"	2
C	Short Shelf	3/4" x 3-1/8" x 4-1/2" (incl. tenons)	2
D	Long Shelf	3/4" x 3-1/8" x 7-1/2" (incl. tenons)	2
E	Back	1/4" x 14-1/2" x 20-1/2"	1
F	Frame Top and Bottom	3/4" x 3/4" x 15-1/2"	2
G	Frame Side	3/4" x 3/4" x 21-1/2"	2
H	Mirror	1/8" x 14-1/2" x 20-1/2"	1
I	Door Back	1/8" x 14-1/2" x 20-1/2"	1
J	Side Molding	1/4" quarter round x 20-1/2"	2
K	Top and Bottom Molding	1/4" quarter round x 14-1/2"	2
L	Peg	1/4" dia. x 1	8
M	Glass Shelf	1/4" x 3-1/2" x 13-7/8"	2

## Contemporary Medicine Cabinet Step-by-Step Instructions

### Step 1: Cut the Two Sides (A)

1. Cut the two sides (parts A), and the top and bottom (parts B) to 1" over length and 5" wide.
2. Set the table saw blade to a 45-degree angle.
3. Cut the stock to exact length.
4. Reset the blade to 90 degrees.
5. Rip a 3/4" strip from one side of each piece. Later, this strip will be used for the door frame.
6. Set the blade to a 45-degree angle again.
7. Use both the miter gauge and rip fence to guide the stock through the blade and cut the spline groove as shown.
8. Make another pass to achieve the 1/4" width.
9. Set the grain direction of the four splines needed to join the corners of the carcass to run perpendicular to the joint line.
10. Cut the four splines, each 5" long x 3/4" wide x 1/4" thick.
11. Measure 4-3/4" from the bottom of the sides and 5-3/8" from the top to begin laying out the 24 1/4" holes to be drilled for the shelf pegs (part L), which are located 5/8" from the back and 2-1/8" apart, as shown.

12. Lay out and mark a point 1" in both directions, again on the vertical lines.
13. Use an awl to make a starter hole at each of the 24 points.
14. Set up the drill press with a 1/4" bit and bore each hole 3/8" deep.
15. Lay out the locations for the mortises for the long and short shelves (parts C and D).
16. Use a drill press to bore a 1/2" diameter hole in the center of each mortise.
17. Use a sharp chisel to square the corners.

### **Step 2: Cut the Shelves (C and D)**

1. Allow about 1" extra on the length for the shelves (including the tenons) and cut the shelves to length.
2. Cut the shelves to width.
3. Set up the table saw with the dado head.
4. Cut a 1/8" deep by 1/2" wide shoulder on the faces of each shelf.
5. Cut a 1/4" deep by 1/4" wide shoulder on each edge.
6. Locate each shelf in its proper position.
7. Transfer the tenon locations.
8. Use a dovetail saw and sharp chisel to remove the waste stock. Some paring may be necessary for a good fit.
9. Add the four toothbrush holes to the small shelf on the lower right side.
10. Trim all shelves to final length.

### **Step 3: Assemble the Carcass**

1. Sand the inside of the carcass.
2. Apply a coat of wax to the inside corners. The wax will make it easier to clean up any glue squeeze-out.
3. Apply glue and assemble the carcass parts together.
4. Clamp using two or three band clamps for even pressure.
5. Allow the glue to dry overnight.
6. Trim the excess spline stock.
7. Plane the back edge flat
8. Use the table saw to cut the carcass to its final depth of 4".
9. Set the router table with a 1/4" rabbet bit
10. Make the 1/4" by 1/4" rabbet around the back of the carcass to accept the back piece (part E).
11. Square the corners.
12. Sand the shelves and the outside of the carcass.

13. Glue and clamp the shelves in place.
14. Check for squareness.
15. Cut and fit the back.
16. Glue and screw in place.

#### **Step 4: Make the Door**

1. Take the four strips cut from the frame and glue them together.
2. Use a band clamp to apply even pressure.
3. Build a jig to cut the splines on the table saw:
  - a) Cut a piece of 3/4" particleboard to 12" by 10".
  - b) Cut two pieces of 3/4" stock to 1-1/2" wide by 14" long.
  - c) Miter one end.
  - d) Glue the two mitered pieces to the particleboard as shown in Fig. 1.
4. Set the table saw blade to 1".
5. Position the jig against the rip fence.
6. Set the fence to cut a 1/8" groove 3/16" from both faces.
7. Repeat the process on all four corners.
8. Use a 3/8" cove bit to cut a door pull on the inside edge of the door.  
**NOTE: The cove is 4" x 3/8" x 3/8" and is centered on the frame.**
10. **NOTE** the grain direction and cut eight 2-1/2" x 1-1/4" by 1/8" splines to fit the grooves.
11. Begin to glue in place.
12. Make sure the splines rest flat against the bottom of the groove.
13. Clamp face to face.
14. Allow the glue to dry.
15. Hand plane the excess spline.
16. Sand the frame.
17. Set up the router table with a 1/4" rabbet bit.
18. Make three passes to cut a rabbet 1/4" wide by 1/2" deep.
19. Cut and fit the door back (part I) and the quarter-round molding.
20. Apply several coats of polyurethane to the frame, back, and molding.
21. Begin assembling by placing the mirror in.
22. Use 5/8" by 18-gauge brads to tack the predrilled back molding into place.  
**NOTE: Use four brads on parts J and three brads on parts K.**
23. Locate and mark two points 7-3/4" from the top and bottom of the door and centered on the frame to layout the position of the magnetic door catches.
24. Bore a 9/16" hole 3/4" deep.

25. Epoxy the catch in place.
26. Lay out and mortise the hinges in place 1" from the top and bottom edge.
27. Close the door and mark the location of the strike plate.
28. Pre-drill the hole.
29. Screw the strike plate in place.

### **Step 5: Make the Cabinet Hanger**

1. Cut two pieces of 3/4" by 1/8" aluminum to 25-1/2" long and eight pieces to 3/8" long.
2. Measure in 1" from each end and mark a point 3/16" from one edge.
3. Do the same thing at 6-3/8" and 3-7/8"
4. Mark a point in the center of each of the eight small pieces.
5. Bore a 1/8" hole at each of the points.
6. Countersink the holes on the long strips.
7. Place the 3/4" member against the back and mark the holes.
8. Pre-drill the holes.
9. Stack the 3/4" member on top of the 3/8" members and screw to the back of the cabinet.
10. Attach the mating member to the wall by screwing into the studs.

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