

Project 16912EZ: Tapering Corner Whatnot Shelf

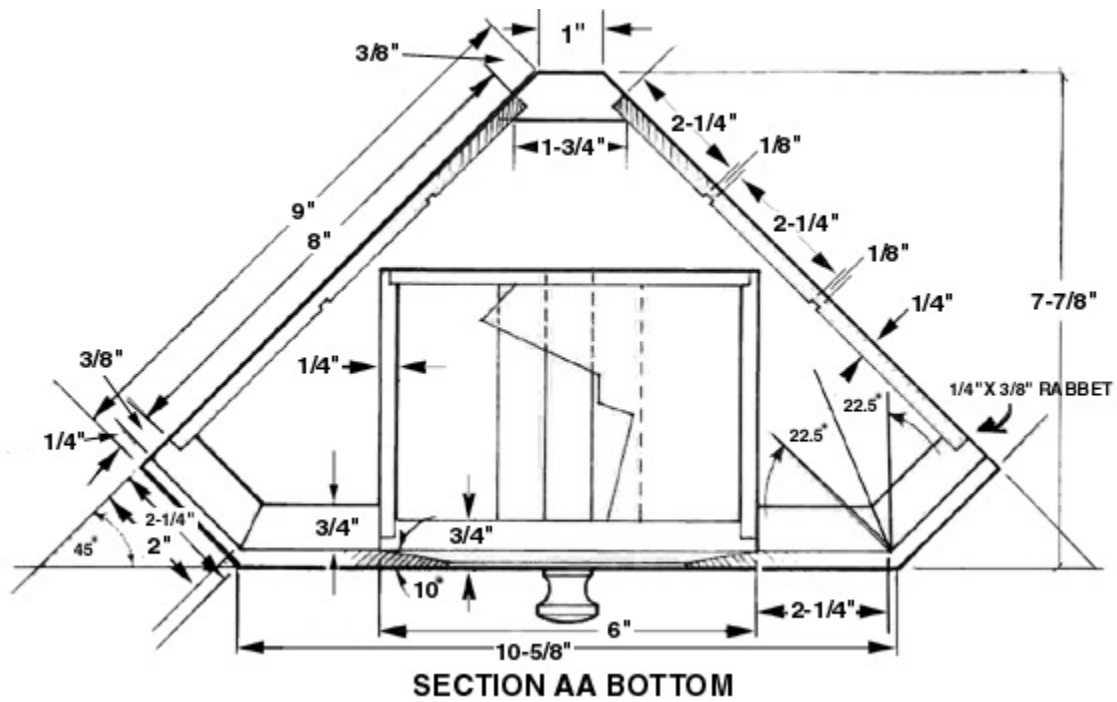
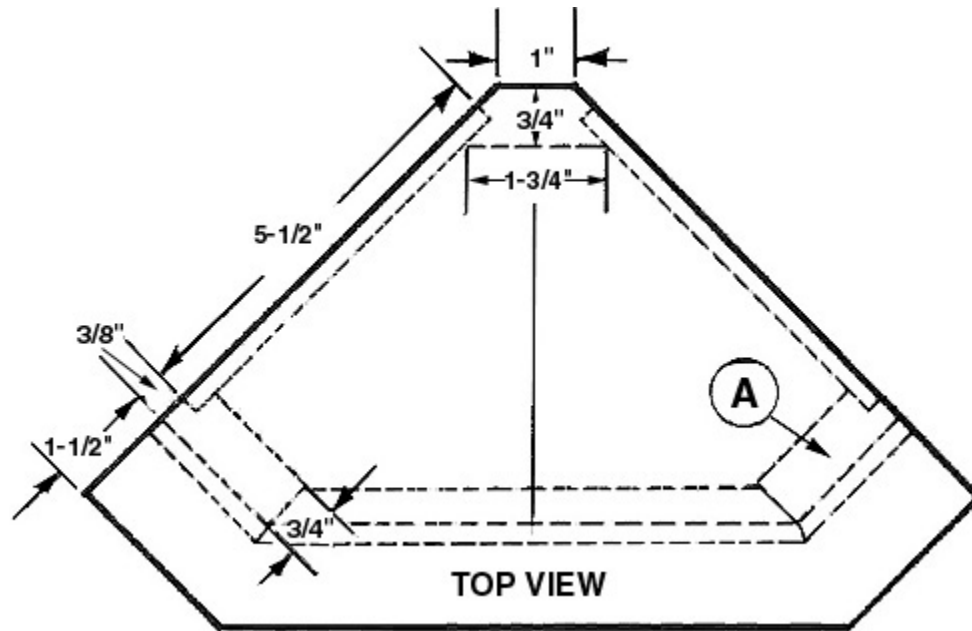
While the tapering structure of this pine corner shelf poses a challenge, you'll have no problem putting the piece together once you understand its angular construction.

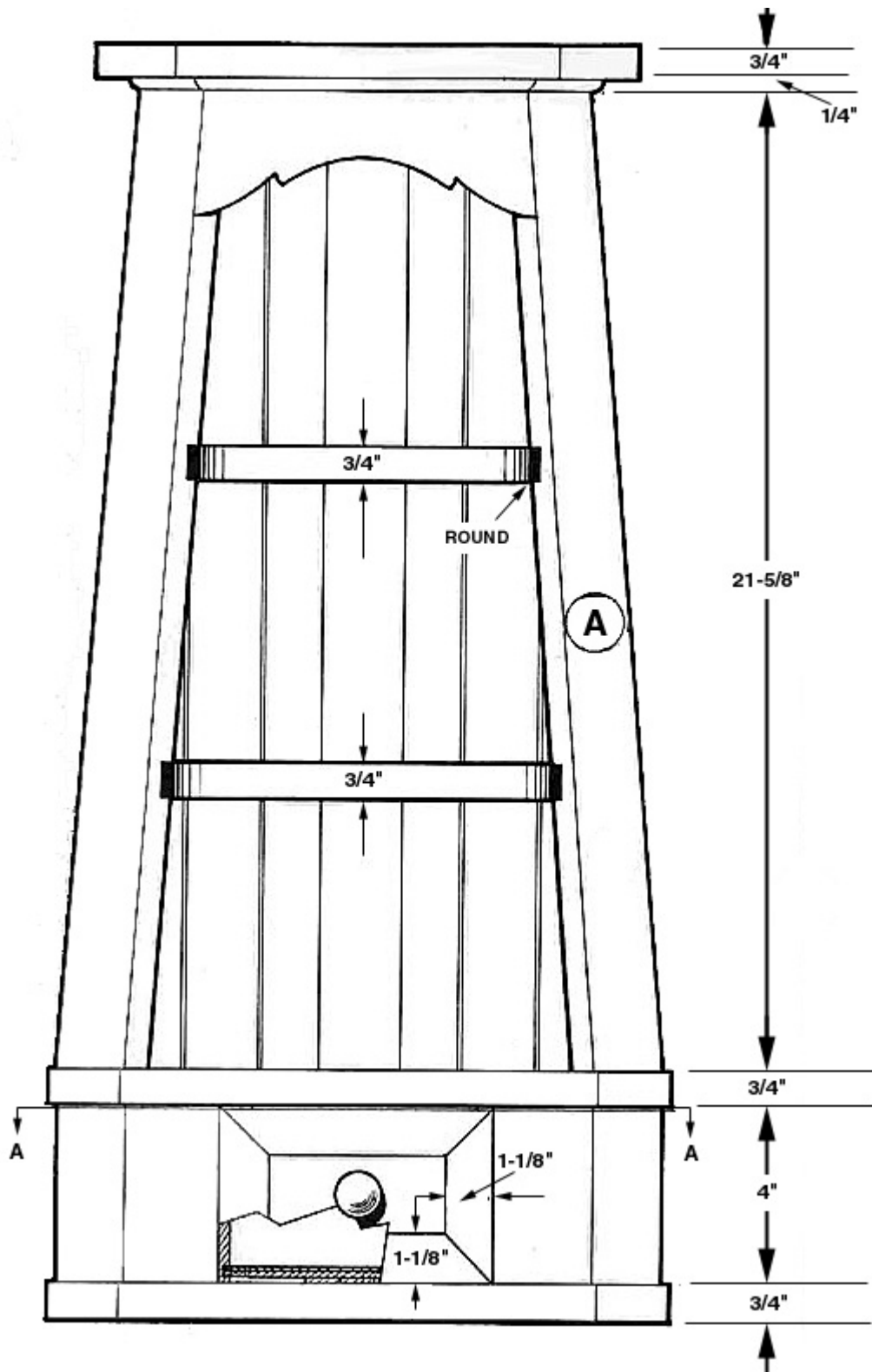


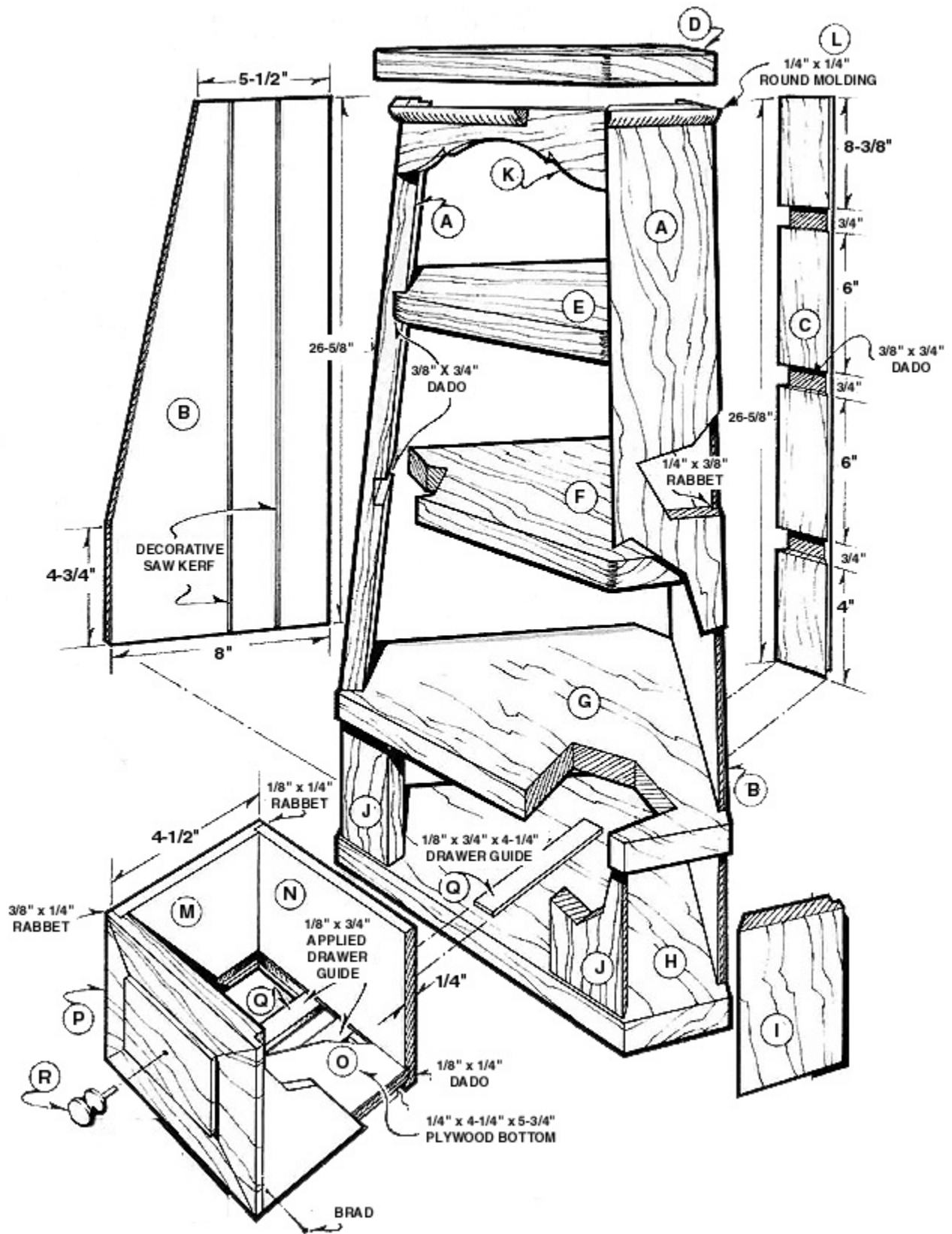
Corner Shelf Materials List

Part	Description	Size	Number Required
A	Side (upper)	3/4" x 2" x 22"	2
B	Back	1/4" x 8" x 26-5/8"	2
C	Back Support	3/4" x 2-1/2" x 26-5/8"	1
D	Top	see Table 1	1
E	Top Shelf	see Table 1	1
F	Middle Shelf	see Table 1	1
G	Lower Shelf	see Table 1	1
H	Bottom	see Table 1	1
I	Side (lower)	3/4" x 2" x 4"	2
J	Front	3/4" x 2-1/4" x 4"	2
K	Valance	3/8" x 3" x 7-1/2"	1
L	Molding	1/4" x 1/4" round	12 in.
M	Drawer Side	1/4" x 4" x 4-1/2"	2
N	Drawer Back	1/4" x 4" x 5-3/4"	1
O	Drawer Bottom	1/4" x 4-1/4" x 5-3/4"	1
P	Drawer Front	3/4" x 4" x 6"	1
Q	Drawer Guide	1/8" x 3/4" x 4-1/4"	3
R	Knob	see Figure 11	1

Corner Shelf Complete Schematic







Corner Shelf Instructions

Step 1: Cut the Two Sides (A) and Two Back Pieces (B)

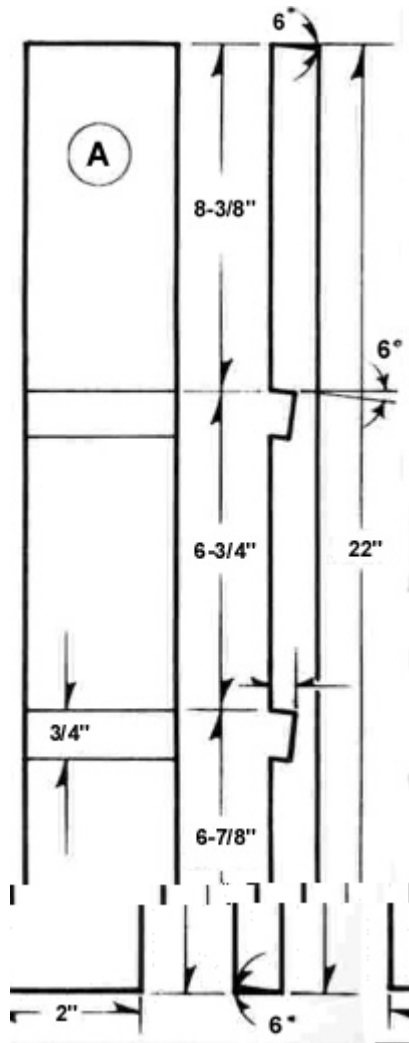


Figure 1: Side Pieces (A)
Detailed Layout

1. Cut the two side pine pieces (A) according to the specified dimensions.
2. Use the dado-head to cut the shelf grooves and ends at a 6-degree angle on both side pieces (A) (see **Figure 1**).
3. Choose the wood from which you would like to cut the back pieces (B): scrap wall paneling or 1/4" plywood are two possibilities.
4. Measure the actual thickness of the wood for the back pieces (B).
5. Make a rabbet the thickness of the back pieces x 3/8" along the back edges of the side pieces (A) (see **Figure 2**) to accept the back pieces (B).
6. Cut the two back pieces according to the specified dimensions.

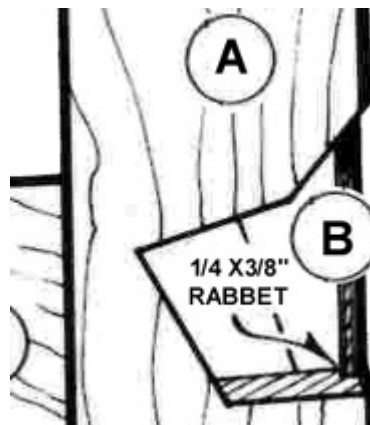
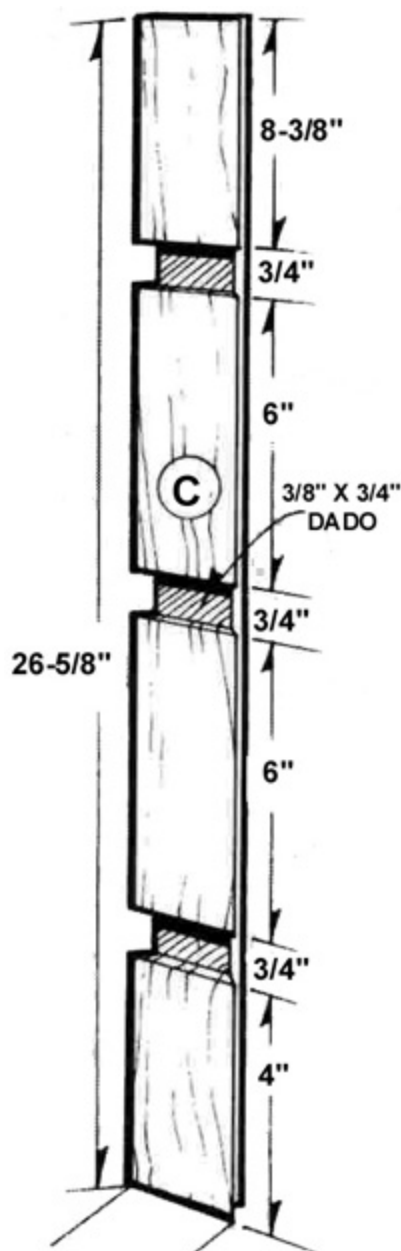


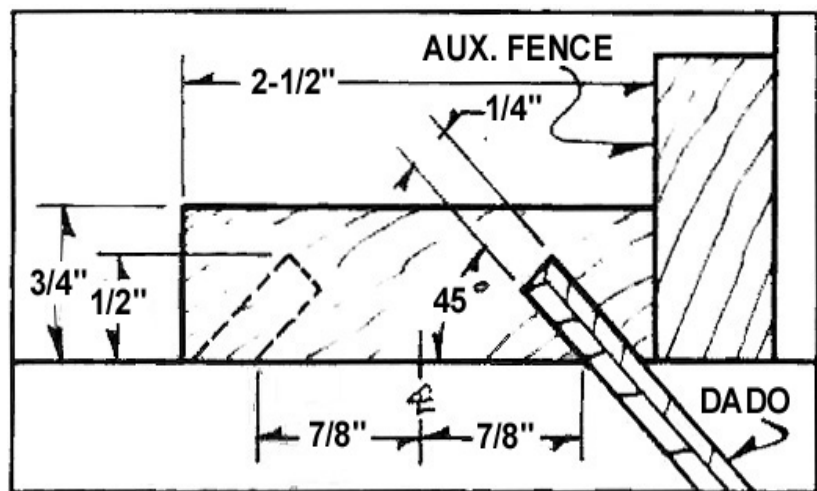
Figure 2: Side Pieces
(A) Rabbet

Step 2: Cut the Back Support (C)

1. Cut the back support (C) according to the specified dimensions.
2. Mark the back support (C) according to the dado layout in **Figure 3**.
3. Use the dado-head to cut the dados.
4. Reset the dado-head to equal the thickness of the back pieces (B).
5. Incline the blade to 45 degrees.
6. Make the 1/2" cut to accept the back pieces (B) (see **Figure 4**).
7. Set the blade at 45 degrees again.
8. Rip the waste away from the back support (C) (see **Figure 5**).
9. Rip the waste away.



**Figure 3: Back Support (C)
Dado Layout**



**Figure 4: Making the 1/2" Cut in the Back Support (C)
to Accept the Back Pieces (B)**

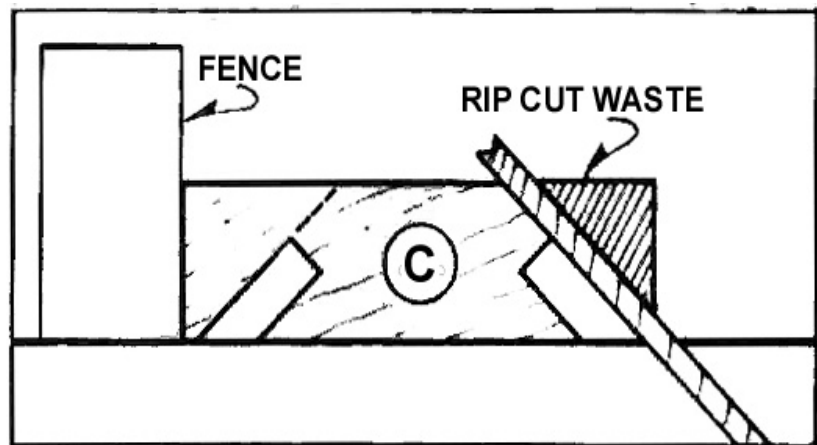


Figure 5: Trimming the Back Support (C) Waste

Step 3: Cut the Shelves

1. Cut the top piece (D), top shelf (E), middle shelf (F), lower shelf (G) and bottom piece (H) to the shape shown in **Figure 6** using the dimensions listed in **Table 1**. **NOTE: The bottom piece (H) has the same front and side profile as the bottom shelf, BUT extends under the back support (C).**
2. Notch the lower shelf (G) to fit around the back pieces (B).

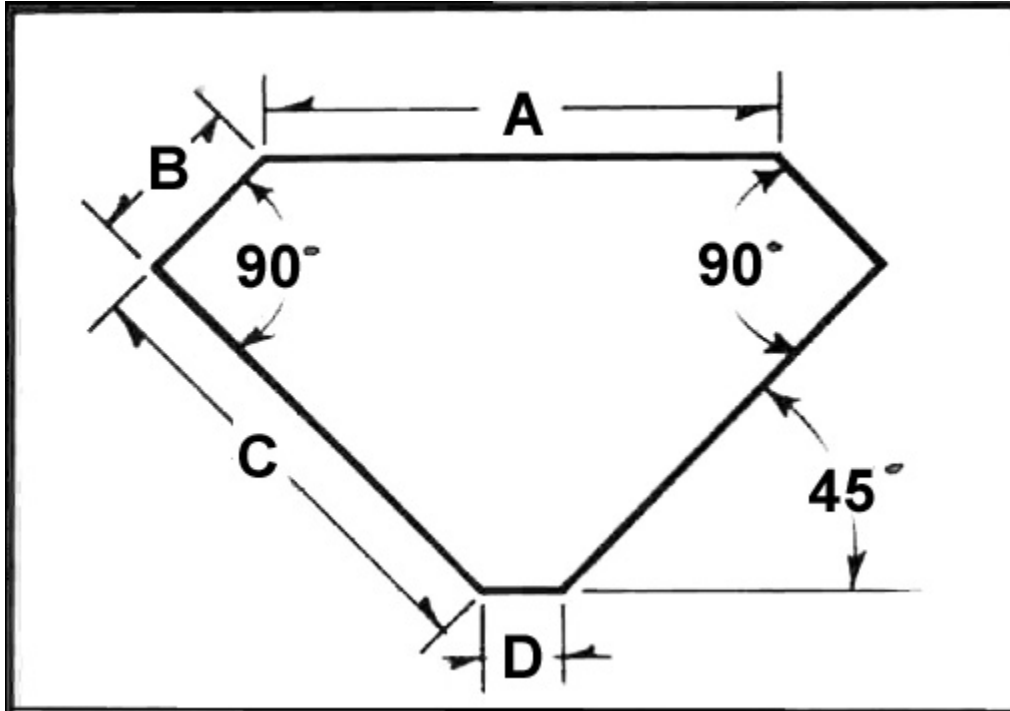


Figure 6: Shape of Top Piece (D), Shelves (E, F, G, and Bottom Piece (H)

Table 1. Top Piece (D), Shelves (E, F, G,) and Bottom Piece Dimensions

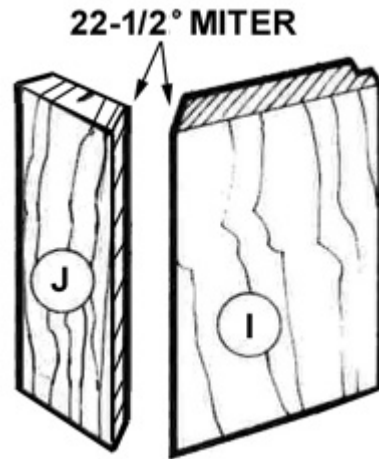
	A	B	C	D
Top (D)	8-1/2"	2-1/2"	7-3/4"	1"
Top Shelf (E)	7-5/16"	2"	6-3/8"	1-1/8"
Middle Shelf (F)	8-3/8"	2"	7-1/8"	1-1/8"
Lower Shelf (G)	10-5/8"	2-1/4"	8-5/8"	1-1/8"
Bottom (H)	10-5/8"	2-1/4"	9"	1"

Step 4: Cut the Lower Sides (I) and Front Parts (J)

1. Cut the lower sides (I) according to the specified dimensions.
2. Make a rabbet the thickness of the back pieces x 3/8" along the back edges of the lower sides (I) (see **Figure 7**) to accept the back pieces (B).
3. Miter the front edges of the lower sides (I) at 22-1/2 degrees to meet the front parts (J) (see **Figure 8**).
4. Cut the front parts (J) according to the specified dimensions.
5. Miter the outside edges of the front parts (J) at 22-1/2 degrees to meet the lower sides (I) (see **Figure 8**).



**Figure 7: Lower Sides (I)
Rabbet**



**Figure 8: Mitering the
Lower Sides (I) and Front
Parts (J)**

Step 5: Assemble

1. Test assemble the parts that you have cut so far.
2. Adjust any parts that do not fit properly.
3. Use glue and brads to make the final assemble.

Step 6: Cut and Fit the Valance (K)

1. Select a 3/8" x 3-1/4" x 6" piece of stock.
2. Set the table saw at a 6-degree tilt.
3. Rip along the top edge of the stock to create the valance's (K) final 3" width (see **Figure 9**).
4. Hold the valance (K) in place on the case.
5. Mark for the two side cuts. **NOTE: You MUST make the side cuts at 47 degrees, as opposed to the 45-degree cut that you would make if the sides were NOT inclined inward.**

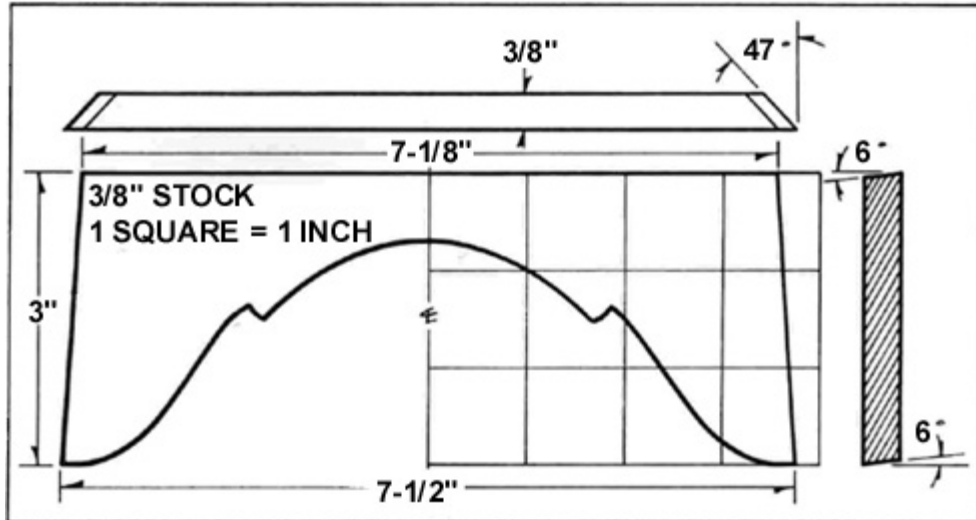


Figure 9: Valance Layout

6. Make the two side cuts.
7. Refer to the grid pattern in **Figure 9** to lay out the valance profile.
8. Band saw the valance profile.
9. Use glue and brads to mount the completed valance (K) to the case.
10. Miter the quarter-round molding (L) as needed.
11. Apply the molding (L) to the valance (K), side pieces (A), and back pieces (B) with glue and small brads. **NOTE: Because the quarter-round molding (L) is small, you do NOT need to adjust it further to make it comply with the taper.**

Step 7: Make the Drawer

1. Cut the drawer parts (M, N, O, and P) according to the specified numbers and dimensions.
2. Use standard rabbeted drawer construction techniques to complete the edges of the drawer parts (M, N, and P).
3. Use the table saw to bevel the drawer front (P) (see **Figure 10**). **NOTE: The blade height at a 10-degree angle is 1-1/8".**
4. Use glue and small brads to assemble the completed drawer parts (M, N, O, and P).
5. Cut the drawer guides (Q) according to the specified numbers and dimensions.
6. Mount two of the drawer guides (Q) to the drawer bottom (O) (see complete schematic for correct placement).

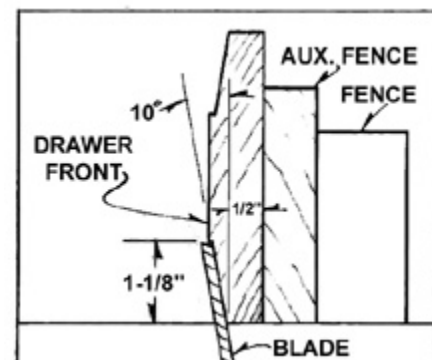


Figure 10: Drawer Front Bevel

7. Mount the third drawer guide (Q) to the center of the case bottom (see complete schematic for correct placement).
8. Place a turned knob (R) or a porcelain knob 1" in diameter in the drawer front (P) to complete the drawer (see **Figure 11**).

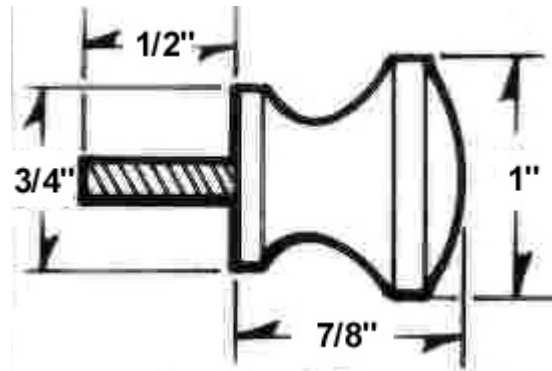


Figure 11: Drawer Knob Placement

Step 8: Stain and Finish to Suit

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