Project 16580EZ:
Three-Drawer Jewelry Chest

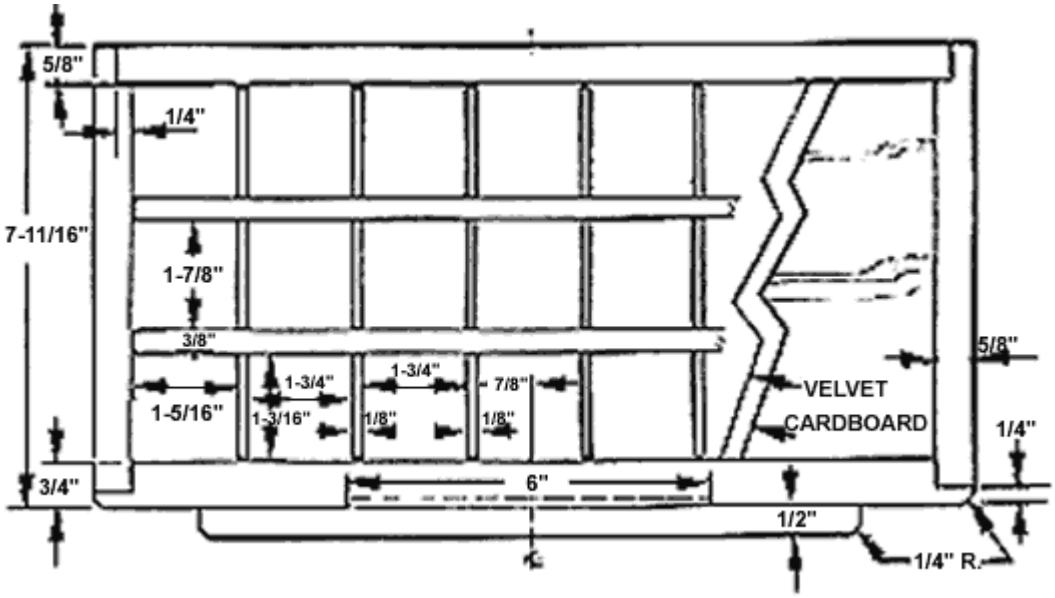
This jewelry chest is proof positive that good designs need not be complex or feature elaborate joinery. The chest is of Hawaiian koa, with a spectacular curly figure featured on the edge facings.

Jewelry Chest Materials List

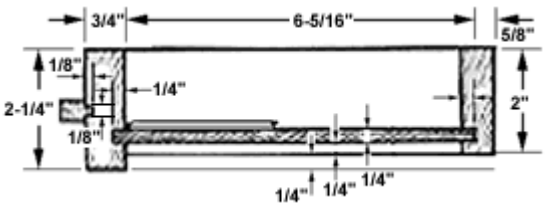
Part	Description	Size	Number Required
A	Top	3/4" x 7-3/4" x 15-1/4"	1
B	Side	3/4" x 7-3/4" x 7-5/8"	2
C	Back	1/4" x 7-1/8" x 15-1/4"	1
D	Bottom	1/4" x 6-7/8" x 15-1/4"	1
E	Drawer Guide	1/2" x 3/4" x 7-3/8"	4
F	Edge Facing	3/16" x 3/4" stock*	as required
G	Filler Block	1/4" x 1/4" x 5/8"	2
H	Drawer Front	3/4" x 2-1/4" x 14-3/4"	3
I	Drawer Side	5/8" x 2" x 7-7/16"	6
J	Drawer Back	5/8" x 2" x 14"	3
K	Drawer Bottom	1/4" x 6-3/16" x 14"	3
L	Pull	3/8" x 5/8" x 11"	3
M	Cardboard	6-1/4" x 13-7/16"	3
N	Velvet	9" x 17"	3
O	Divider (long)	3/8" x 3/4"	as required
P	Divider (short)	1/8" x 3/8"	as required

* Edge facing at back can be 7/8" wide.

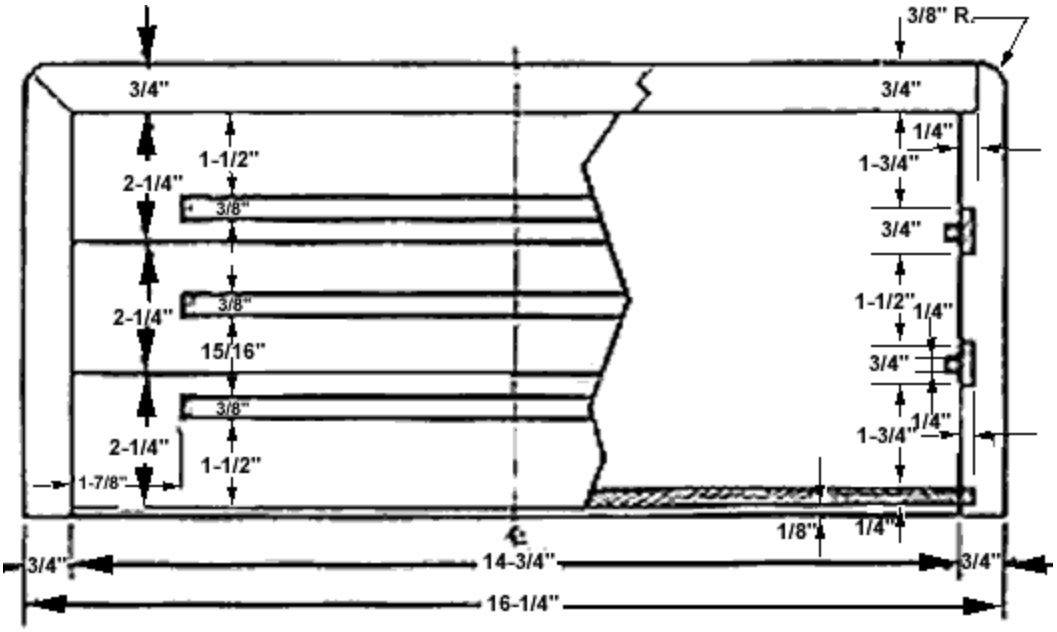
Jewelry Chest Complete Schematic



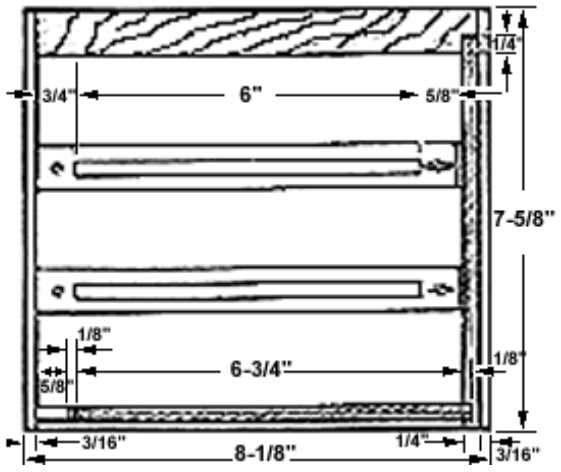
Drawer Top View



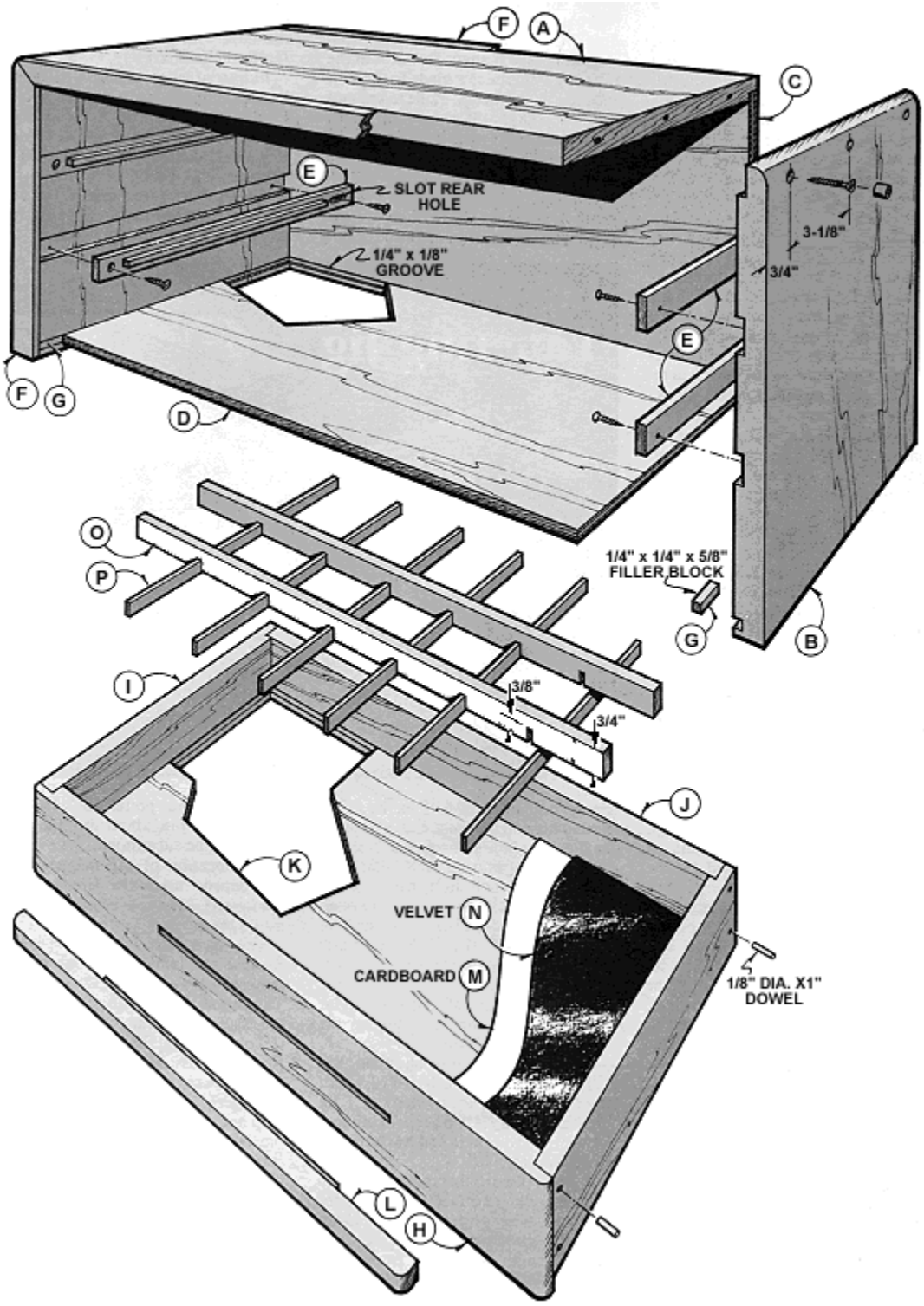
Drawer Section



Front View



Section


F
A
C
E
SLOT REAR HOLE
1/4" x 1/8" GROOVE
3-1/8"
3/4"
E
F
G
D
O
P
1/4" x 1/4" x 5/8" FILLER BLOCK
G
B
I
3/8"
3/4"
J
K
VELVET N
CARDBOARD M
1/8" DIA. X1" DOWEL
L
H

Jewelry Chest Instructions

Step 1: Make the Top (A), Two Sides (B), and Back (C)

1. Start with a board that is jointed perfectly straight and smooth and that measures about 8" x 32".
2. Use a thickness sander to produce a nice flat, smooth surface.
3. Crosscut the board into the two sides and top in this order: side, top, side. **NOTE: This layout helps create a nice effect of visual continuity in the grain of the wood**.
4. Use an 8" jointer to rip each piece to 7-3/4" wide. **NOTE: By crosscutting before ripping, you will be able to achieve greater accuracy in the final width**.
5. Use a dado head in your table saw, and making the first cut across the grain and the second with the stock standing on end, make the rabbets on the top inside end of each side that form the edge that the top piece will fit on.
6. Make the depth of the rabbet a hair deeper than the thickness of the top, so that you'll have some extra to sand off flush.
7. Choose any 1/4" plywood or even solid stock to make the back (C).
8. **NOTE: Because 1/4" thick plywoods are actually measured in millimeters, and may not be the exact equivalent of 1/4" thick, it is important in the next step to make the depth of the rabbet equal to the actual thickness of the plywood**.
9. Rabbet the rear edges of the top (A) and sides (B) to accept the plywood back (C). **NOTE: When assembled, the front and back edges of the sides and top must be perfectly flush to accept the facing strips that will be glued over them. Therefore, you don't want any ridges here**.
10. Cut a 1/8" by 1/4" dado in the back (C) to accept the bottom (D) as shown in the schematic.
11. Cut the dadoes in the sides (B) and drawer guides (E).
12. Take care not to chip out the remaining 1/8", which is fragile until the bottom is in place, and then cut the dadoes for the bottom (D).
13. Set up the drill press to drill holes for the screws and plugs that hold the sides to the top.
14. Counterbore a shallow hole (about 1/4" deep) with a 3/8" drill bit.
15. Drill a through hole measuring the same diameter as the shank of whatever screw you're using.

16. Use a 3/8 x 1/4" plug cutter to make the plugs (see **Figure 1** for plug cutting detail), **OR** use pre-manufactured dowels if you are using a standard hard-wood.

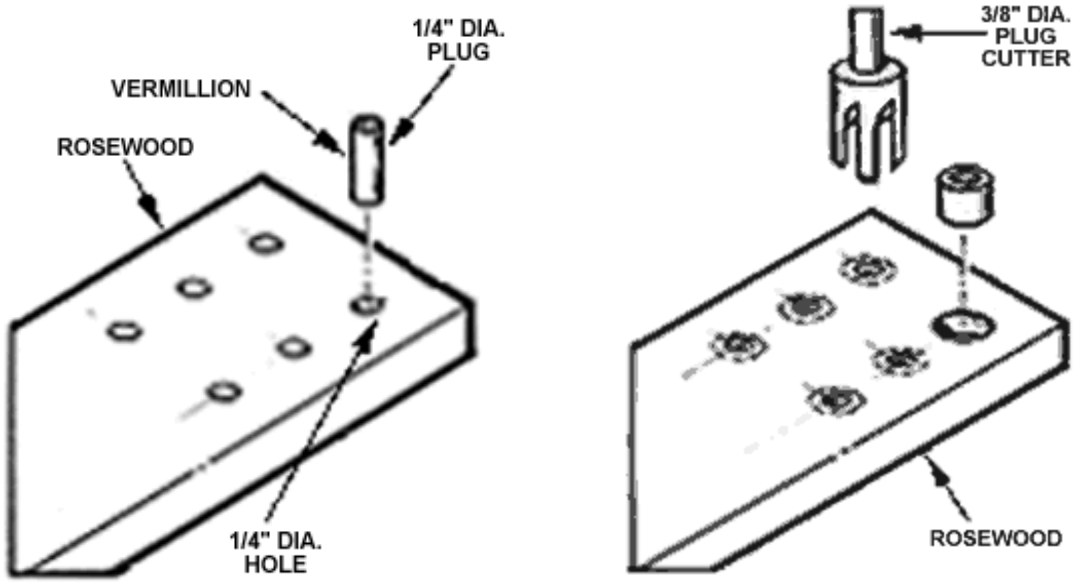


Figure 1. Plug Cutting Detail

17. Drill 1/4" holes spaced about 1" apart in the stock.
18. Make 1/4" plugs of vermilion and pop them out (see Figure 1).
19. Glue the plugs into the holes in the stock.
20. Allow the glue to dry overnight.

Step 2: Assemble the Carcase

1. Use either white or yellow glue to assemble the carcase.
2. Use a staple gun, small screws, or brads, keeping them close to the edge so they will later be covered by the edge facings, to fasten the back (C) to the side (B) rabbets.

Step 3: Mill the Edge Facing Strips (F)

1. Start with the same or constrasting stock for the facing, preferably standard surfaced 4/4 lumber.
2. Rip the 4/4 lumber a tad wider than the edges you're facing.
3. Sand the lumber to width. **NOTE: Make the facing for the back about 7/8" wide to give yourself more material for covering the fasteners and glue joint.**
4. Cut the miters.
5. Rip off the strips to about 3/16" thick.

6. Use masking tape or duct tape to tape the facings onto the carcase after they're glued.
7. Put glue in the screw countersink holes and hammer the plugs in, leaving them proud of the surface so you can sand them flush.
8. Glue the two 1/4" x 1/4" x 5/8" filler blocks (G) in place at the front end of the bottom dado in the sides. The blocks fill the ends of these dadoes.
9. Leave the 1/8" space between the filler blocks and the plywood bottom to allow for any contraction that might take place across the width of the sides (B).
10. Start at the back (C) and glue the bottom (D) into place along the back edge and along the sides (B) for several inches.

Step 4: Mill and Screw in the Drawer Guides (D)

1. Select any type of wood to make the drawer guides (D).
2. Size the drawer guides 1/8" less than the dado length.
3. Place a slotted screw hole at one end to allow for movement in the sides (B).
4. See **Figure 2** for cutting detail on how the drawer guides are milled.

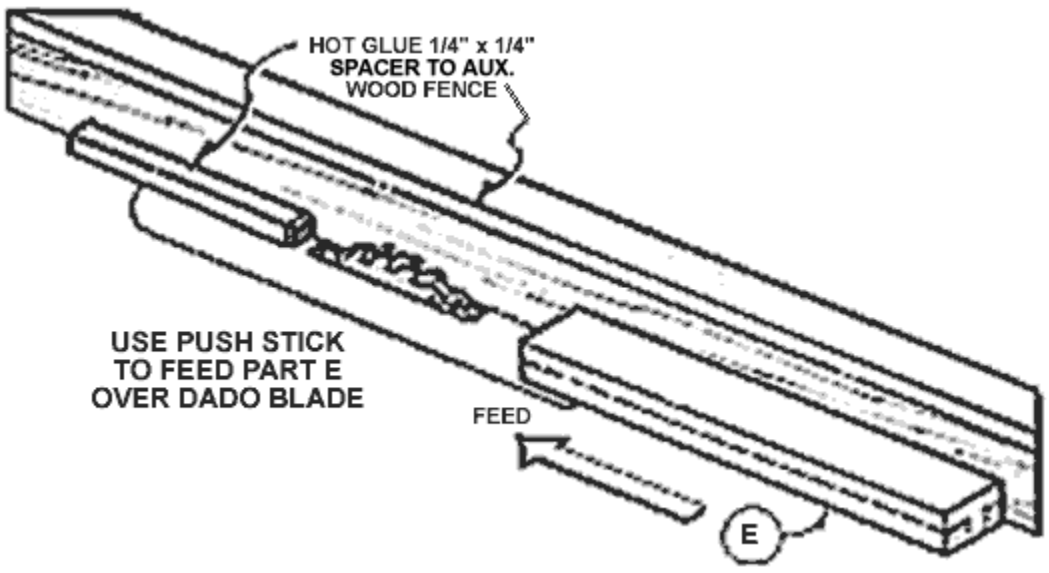


Figure 2. Drawer Guides Cutting Detail

5. **NOTE: Be especially careful milling the drawer guides as it is a fussy operation.** You can mill the drawer guides by bringing the dado-head up through a fresh table saw insert and by using a push stick to maintain firm control at all times, **OR** by using the same basic setup on a router table, which is advantageous because you eliminate the potential for kickback.

6. Chamfer the spacer on the fence end so the drawer guide will not catch.
7. Screw the drawer guides in place with 1/2" long screws.
8. Use a stationary belt sander to establish the 3/8" radius round-over on the top shoulders of the drawer guides (D).

Step 5: Make the Drawers

1. **NOTE** that the bottom of the drawer front must overhang 1/4" to conceal the butt ends of the drawer guides and the space between.
2. Make the drawers so that they just fit into the carcase, using conventional construction techniques and either rabbeting or dovetailing the drawer cases. **NOTE: When final sanded, the drawers should have the right amount of "play."**
3. Mill the drawer fronts to fit the drawer sides and back. **NOTE: When unsanded, the drawer front when should be slightly oversized, so that when you're done it will be flush. If you don't quite get it right you can always glue a spacer to the back of the drawer to bring it flush**.
4. Use the table saw, along with a pair of stop blocks — one in front of and the other behind the blade — to cut the slots in the drawer fronts (see **Figure 3**).
5. Mill 5/8" by 3/8" thick Indian rosewood stock to make the drawer pulls (L).

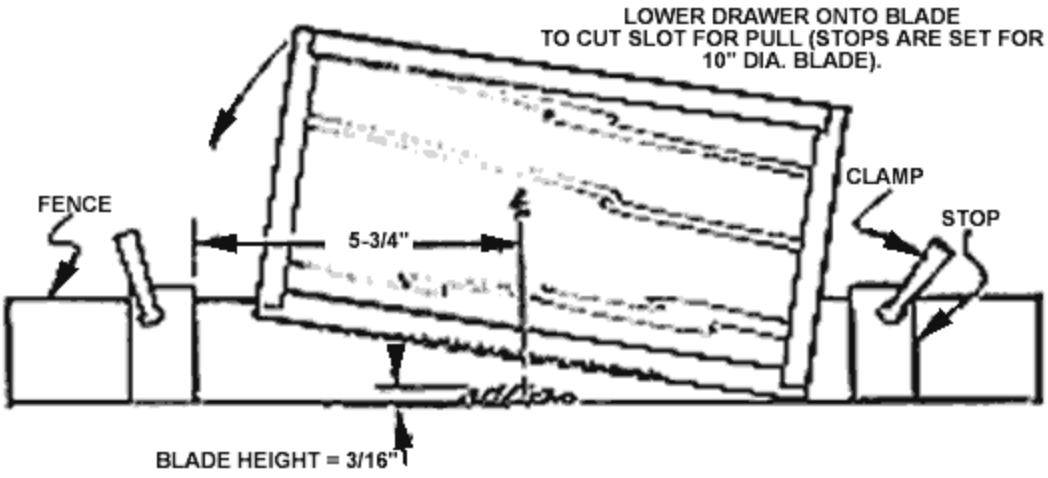


Figure 3. Drawer Front Slot Cutting Detail

6. Use a push stick and cut tongues a hair less than the depth of the slots you just milled in the drawer front on one edge of each drawer pull (L) (see **Figure 4)**.
7. Fit the tongue into the corresponding slot cut into the drawer fronts.

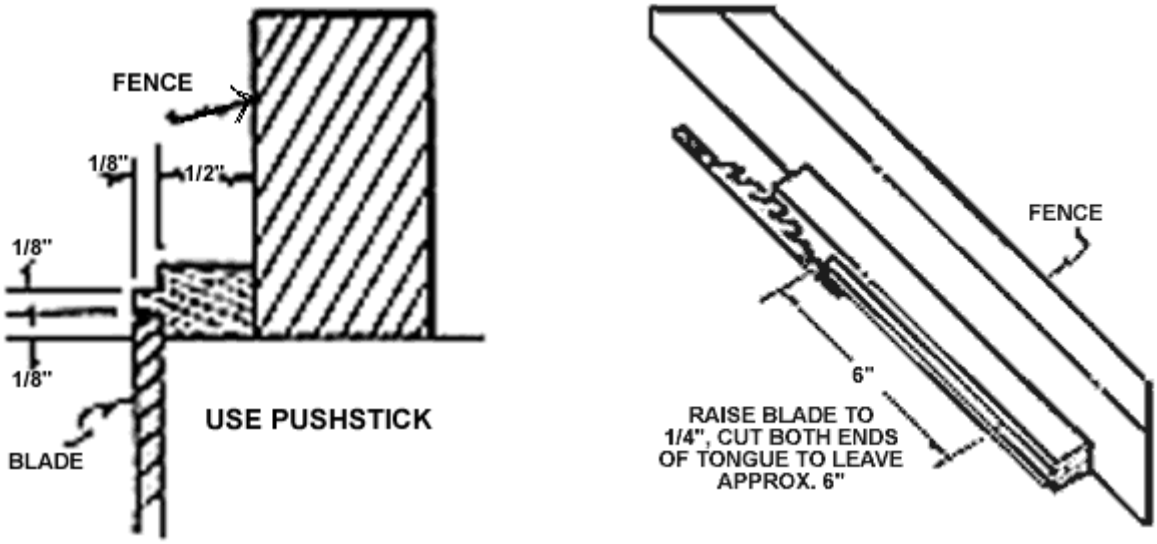


Figure 4. Drawer Tongues Cutting Detail

8. Final glue the drawer pulls in place, using spring clamps to properly align them.

Step 6: Finish

1. Saturate the surface of the carcase and drawers with a single application of Watco oil.
2. Use 00 steel wool and plenty of elbow grease to work the oil into the surface. Use paper towels to wipe of the excess oil.
3. Let the piece dry for at least 48 hours at 70 degrees.
4. Use 00 steel wool again to remove the Watco crust.
5. Wax the drawer and carcase surfaces well with any good quality furniture paste wax.
6. Wrap velvet over stiff mat cardboard and tape it to the underside to create the drawer bottom liners.
7. (Optional) Make the drawer dividers from 1/8" and 3/8" thick stock. You can make dividers for only one drawer, or size them to compartmentalize the drawers for a particular type of jewelry collection.

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