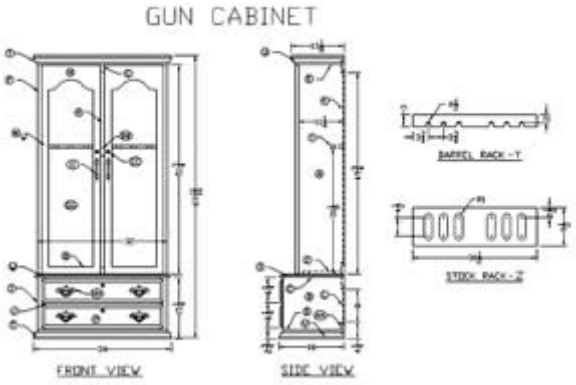
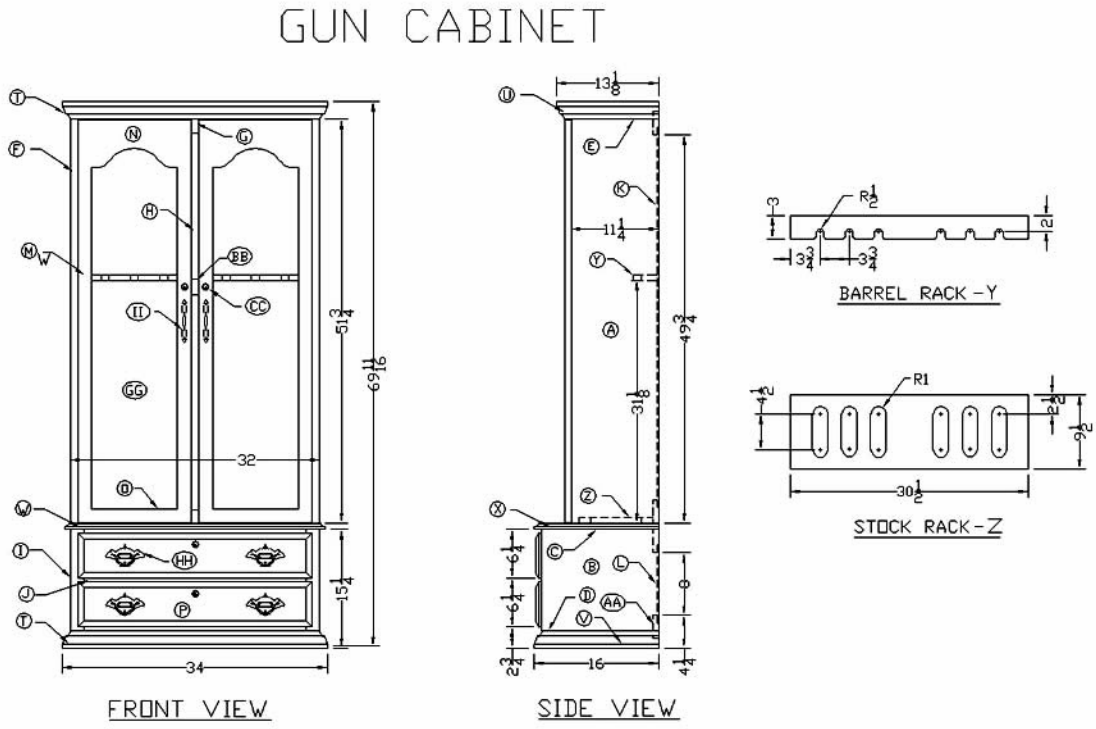
How to Make a Wooden Gun Cabinet





Technical Information for Making a Wooden Gun Cabinet

A. Materials List:

QUANTITY	LETTER	NAME	SIZE	MATERIAL
1	E	Top	3/4" x 13 1/2" x 30 1/2"	Cherry
2	F	Upper Vertical Frames	3/4" x 1 3/4" x 53"	Cherry
2	G	Upper Horizontal Frames	3/4" x 1 3/4" x 28 1/2"	Cherry
1	H	Upper Verticall Frame	3/4" x 2" x 48 1/4"	Cherry
2	I	Lower Vertical Frames	3/4" x 1 3/4" x 14"	Cherry
3	J	Lower Horizontal Frames	3/4" x 1 1/4" x 28 1/2"	Cherry
1	K	Upper Back	1/4" x 31 1/4" x 48 3/4"	Cherry Plywood
1	L	Lower Back	3/4" x 31 1/4" x 10"	Cherry Plywood
4	M	Vertical Door Frames	3/4" x 1 3/4" x 51 1/2"	Cherry
2	N	Horizontal Door Frames	3/4" x 6 1/16" x 11"	Cherry
2	O	Horizontal Door Frames	3/4" x 1 3/4" x 11"	Cherry
2	P	Drawer Fronts	3/4" x 5 3/4" x 30"	Cherry
4	Q	Drawer Fronts & Backs	1/2" x 4" x 27 1/4"	Cherry
4	R	Drawer Sides	1/2" x 4" x 12 3/8"	Cherry
2	S	Drawer Bottoms	3/8" x 11 7/8" x 27 3/4"	Plywood
2	T	Front Crown Moldings	3/4" x 2 1/4" x 34"	Cherry
2	U	Side Crown Moldings	3/4" x 2 1/4" x 13 1/8"	Cherry
2	V	Side Crown Moldings	3/4" x 2 1/4" x 16"	Cherry
1	W	Front Molding	3/4" x 3/4" x 33 1/2"	Cherry
2	X	Side Moldings	3/4" x 3/4" x 16"	Cherry
1	Y	Barrel Rack	3/4" x 3" x 30 1/2"	Cherry
1	Z	Stock Rack	3/4" x 9 1/2" x 30 1/2"	Cherry
4	AA	Back Frames	3/4" x 3" x 30 1/2"	Cherry
1	BB	Lock Block	1/2" x 1" x 2"	Cherry
4	CC	Locks	!" Diameter	Brass
4	DD	Drawer Glides	12"	Metal
4	EE	European Hidden Hinges		Stainless Steel
2	FF	Magnetic Door Catches		Metal
2	GG	Glass Panels	1/4" x 11 3/4" x 46 15/16"	Tempered Glass
4	HH	Drawer Pulls	5"	Brass
2	II	Door Pulls	5 1/2"	Brass
1	JJ	Barrel & Stock	12" x 12"	Felt

		Covering		
12	KK	Glass Panel Clips		Plastic
20	LL	Dowel Pins	3/8" x 2"	Birch

B. Patterns:

1. Scale the upper door frames (N) to the sizes specified in the materials list. This can be accomplished by measuring the drawing print out and dividing those sizes into the sizes in the materials list. This will give a multi-factor that can be used to figure the enlargement size for the pattern. This can be easily done at home if you have a copier capable of making enlargements. If not, most companies that do duplicating can make the enlargements required for the pattern.
2. Trace the pattern onto a poster board or Mylar and use a pair of scissors to cut out the pattern.

C. Cutting Procedures:

1. Use a radial arm saw to cut two 53” long pieces for the upper sides (A) from a 3/4” x 12” x 9’ cherry board. Joint one edge of each board.
2. Use a table saw to rip both boards 11 1/4” wide.
3. Joint one edge of a 1” x 8” x 10’-2” cherry board.
4. Use a radial arm saw to off cut four boards, each equal to 14 1/2” for the lower sides (B), and two boards 32 1/2” for the lower top (C). Cut a 1/4” x 3/8” rabbet joint the length of the back inside edge of each upper side (A) and each lower side (B).
5. Align the four 14 1/2” boards edge to edge, and use a framing square to aide in drawing lines across the boards 3” from each end Use a horizontal boring machine to drill a 3/4” x 1 1/16” dowel hole into the jointed edges of each board where marked for lower sides (B). Repeat the process for the lower top (C), except drill a third dowel hole at the mid point of each board in addition to the ones 3” from the ends.
6. Place wood glue on the jointed edges of the boards and pound a dowel pin into each hole. Place glue on the exposed dowel pins and use bar clamps to clamp the boards together. Allow the glue to dry over night.
7. Remove the clamps and plane the boards 3/4” thick.
8. Use a radial arm saw and a table saw to cut the lower sides (B) and the lower top (C) to their respective sizes.
9. From a 3/4” x 7” x 10’-4” cherry board cut out and dowel the bottom (D) and the top (E) similar to the procedures #5, #6 and # 8.
10. Use a planer to trim the boards on each side.
11. From a 3/4” x 12” x 60” cherry board cut out the upper vertical frames (F), upper horizontal frames (G), the upper vertical frame (H), lower vertical frames (I), and the lower horizontal frames (J) to their respective sizes.
12. Cut the vertical door frames (M), and the horizontal door frames (O) to their respective sizes.
13. Cut the horizontal door frames (N). Trace the pattern on each frame and cut out the shapes with a band saw and finish the edges to the desired smoothness with a spindle sander.
14. Use a table saw and a dado blade to cut 1/4” x 3/8” rabbet joints in the back inside faces of the vertical door frames (M), and the horizontal door frames (O). Cut 1/4” x 2 7/8” rabbet joints in the back inside faces of the horizontal door frames (N). These rabbet joints are to accommodate the glass panels (G/G).

15. Use a boring machine to drill 3/8" x 1 1/16" holes for the dowel pins (L/L) in the inside edges of the upper vertical door frames and the ends of the upper horizontal door frames (N) an (O).
16. Use a table saw and a radial arm saw to cut out the upper back (K) and the lower back (L) to their respective sizes from 1/4" cherry plywood**. Note: This procedure should be done after the assembly has been completed in order to insure a proper fit.**
17. Cut the drawer fronts (P), sand the edges. Use a hand router and a 1" Roman Ogee Bit to shape edges.
18. Cut the drawer fronts & backs (Q) and the drawer sides (R). Use a hand router and a 3/8" straight bit set to a depth of 1/4" to route the grooves for the drawer bottom (S).
19. Use a mortise machine to cut a 1/2" x 1 3/8" x 2/8" notch in the top/center front face of the two drawer fronts (Q) to accommodate room for the drawer locks (C/C).
20. From 3/8" plywood cut the drawer bottoms (S) to proper size.
21. Use a power miter saw to cut the lengths and 45 degree angles for the front and side crown moldings (T), (U), & (V).
22. Use a power miter saw to cut the lengths and 45 degree angles for the front and side moldings (W), & (X).
23. Cut the barrel rack (Y) to proper size. Measure 2" from the back edge and draw a line the length of the rack parallel to the back edge. Measure 3 3/4", 7 1/2", & 11 1/4" from each end. Draw perpendicular lines to intersect the parallel line to locate the six centers. At the centers, use a 1/2" Foerstner Bit to drill the holes. Use a band saw to cut out the areas for the barrel slots. Use a spindle sander to smooth out the slots. Refer to Barrel Rack Detail – Y.
24. Cut the stock rack (Z) to proper size. Measure in 2 1/2" from each the and rear edges. Draw lines the length of the rack. Measure 3 3/4", 7 1/2", & 11 1/4" from each end. Draw lines to intersect the previous lines to locate centers. At the center marks, use a 1" Foerstner Bit to drill the twelve holes. Use a scroll saw to cut the slots. Use a spindle sander to smooth out the slots. Refer to stock rack – Z.
25. Cut four boards, each equal to 3/4" x 3" x 30 1/2", to make the back frames (A/A). Use a table saw with a dado blade to cut rabbet joint 1/4" x 1" x 30 1/2" in each board.
26. Cut a board 1/2" x 1" x 2" for the lock block (B/B). Raise the table saw blade to cut a depth of 3/8". Adjust the fence 1/8" from the blade and cut a 3/16" groove the length of the block to accommodate blade portion of the lock.
27. Use a drill press and a 1" Forestner Bit to drill holes for the locks (C/C) in the upper cabinet doors and the lower cabinet drawers. The centers for the in the doors should be drilled 7/8" in from the edges and 30 3/16" from the bottom edge of the doors. The holes should be centered horizontally and 7/8" down from the top edges of the drawers.
28. Drill two holes through each drawer front (P) to accommodate the drawer pulls (H/H). **NOTE: The diameter and positioning of the drawer pulls will be determined by the size and type of drawer pulls used.**
29. Drill two holes through each inside vertical door frame (M) to accommodate the door pulls (I/I). **NOTE: The diameter and positioning of the door pulls will be determined by the size and type of door pulls used.**
30. On the inside surface of the cabinets measure 3/4" in from the back edge and 3" from the top and bottom to find the centers for the holes needed for the European hidden hinges (E/E). Use a drill press and a 1 1/4" Foerstner Bit drill a 1/2" deep hole at each center.

D. Gun Cabinet Sanding Procedures:

1. Rough sand all solid parts with an orbital sander and 80 grit sandpaper.
2. Intermediate sand with an orbital sander and 120 grit sandpaper.
3. Rough and intermediate, sanding should be completed before assembly procedure.
4. Finish sand all parts with an orbital sander and 220 grit sandpaper **after the assembly procedure.**
5. Hand sand all edges, and details, with 220 grit sandpaper.

E. Assembly Procedures:

1. Align the upper horizontal frames (G) between the ends of the upper vertical frames (F). Align the center vertical frame (H) in the center between the upper horizontal frames. Use a pencil and a square to draw lines 7/8" from the top & bottom of the upper vertical frames & 3/8" from the edge of the center vertical frame to locate placement of dowel pins. Use a horizontal boring machine to drill 3/8" x 1 1/16" holes for the dowel pins into the ends of the upper horizontal, sides of the vertical frames and ends of the center vertical frames where marked.
2. Place wood glue in the holes of center vertical frame (H) and tap a dowel pin (LL) into each hole. Place glue on the ends of the center vertical frame and the exposed portion of the dowel pins and tap the upper horizontal frames (G) onto it. Place glue in the ends of the upper horizontal frames and tap dowel pins into them. Place glue on the ends of the upper horizontal frames and the exposed dowel pins and tap the upper vertical frames (F) into position. Use bar clamps to secure the cabinet frame assembly together. Remove excess glue and allow to dry over night. **NOTE: Use a framing square to assure the upper frame assembly is perfectly square.**
3. Repeat procedure #2 to make the lower frame assembly, using the lower vertical frames (I) and the lower horizontal frames (J). The three lower horizontal frames should be positioned between the ends and in the center of the lower vertical frames
4. Place glue on the outer edges of the lower vertical frames (I) and use a nail gun with 1 1/2" nails to nail the lower sides (B) onto the lower frame assembly.
5. Place glue on the ends of the four back frames (A/A) and nail the lower sides (B) onto them. The bottom edge of each back frame should be positioned 1 1/4", 12 1/4", 16", and 65 3/4" from the bottom of the cabinet.
6. Place glue on the top edges of the bottom cabinet assembly and nail the lower top (C) onto it. Glue the outer edges of the bottom (D) and nail it in place. Glue and nail the top (E), barrel rack (Y), and the stock rack (Z) in their respective places in the upper cabinet assembly.
7. Glue and nail the top and bottom crown moldings (T), (U), and (V) in their respective positions on the upper and lower cabinet assemblies
8. Glue and nail the front and side moldings (W) and (X) in their respective positions.
9. Nail the back panels (K and (L) in place using 3/4" nails.
10. Glue and nail the drawer sides (R) onto the drawer fronts and backs (Q). Before nailing the drawer backs in place slip the drawer bottoms (S) into the grooves provided.
11. Use two #8 x 1 1/2" flathead wood screws to attach the drawer assemblies onto the drawer fronts (P). Use a #8 x 1 1/2" countersink to place the screws flush with the inside surfaces of the drawer fronts (Q).
12. Install the drawer glides (DD) according to the manufacture's instructions. Use a pair of scissors to cut out the shapes of the protective felt coverings (J/J), and glue them in the slots cut in the barrel rack (Y) and the stock rack (Z).
13. Glue and pound the dowel pins (L/L) into the ends of the upper horizontal door frames. Glue and clamp the upper door frames (M) onto the upper horizontal door frames. Use a

framing square to assure that the door frames are perfectly square. Clean up excess glue and allow to dry over night.

14. Use a hand router and a 1" Roman Ogee Bit to route the inside edges of each door frame.
15. Install the locks (C/C), drawer pulls (H/H), and the door pulls (I/I). **NOTE: The locks for the drawers should be installed prior to connecting the drawer fronts (Q) onto the drawer fronts (P).**
16. Install the glass panels (G/G) and secure them with the glass panel clips (K/K
17. Install the European Hidden Hinges (E/E) and the magnetic door catches (F/F). **NOTE: Steps 12 through 14 and 17 through 19 should be completed after the finish procedures are complete.**

Finishing Procedures:

1. Use plastic wood dough to fill all nail holes, cracks and imperfections.
2. Use an orbital hand sander and 220 grit sandpaper to finish sand the entire project.
3. Hand sand all edges with 220 grit sandpaper.
4. If stain is desired, apply with a brush and allow to penetrate for 5-10 minutes, and then remove with a clean rag.
5. stain to dry 6 hours and then repeat with a second coat.
6. Apply a clear finish coat such as Varathane, Polyurethane, lacquer, etc. using a pure-bristle brush. Allow to dry 12 hours.
7. Lightly hand sand finish with 220 grit sandpaper.
8. Apply second coat of clear finish.
9. If additional finish coats are desired, repeat steps #6 & 7.
10. Allow to dry 24 hours for the finish to dry.

Notes:

1. **Be sure to match the color of the wood dough to the stain color.**

2. **Use a tack rag after each sanding procedure to remove the dust.**