Top Gun

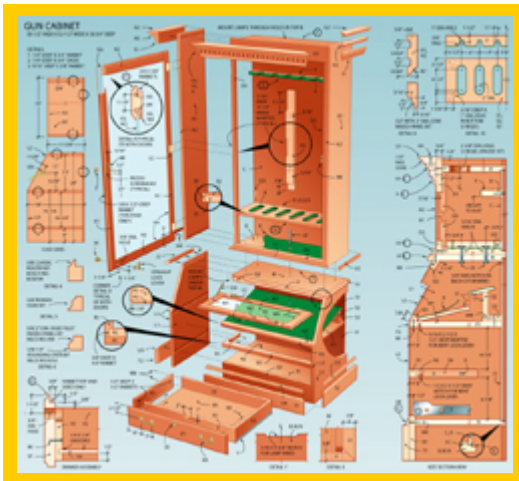
A well-crafted cherry cabinet for long arms and pistols.

Many firearms are laid flat and slid under a bed, or they are stood in a closet or buried in a drawer. Others are simply laid across bland-looking racks. It doesn't have to be that way. Firearms should be stored in a convenient and secure place that allows us to admire and handle them or easily remove them for hunting or target practice. We think this gun cabinet succeeds on all counts. Long arms are stood in the upper case, pistols displayed in the lower case. Supplies and ammunition may be stored in the two drawers below. With security in mind, the upper and lower doors are equipped with locks, as are the drawers. The glazing is impact-resistant acrylic sheet.

A gun cabinet can be an eye-catching piece of furniture, and we've designed this piece to be as elegant as anything else you would want to build. It's constructed of cherry plywood and solid cherry. The upper and lower cases are lighted with 20-watt, low-voltage halogen lamps. And the moldings, hardware and proportions all suggest refinement, not merely storage.

As projects go, this requires rather advanced skills. If you've already built a cabinet of one type or another, then it should be well within your capability. If you haven't built a

cabinet yet, then study the plans and materials list carefully before beginning.

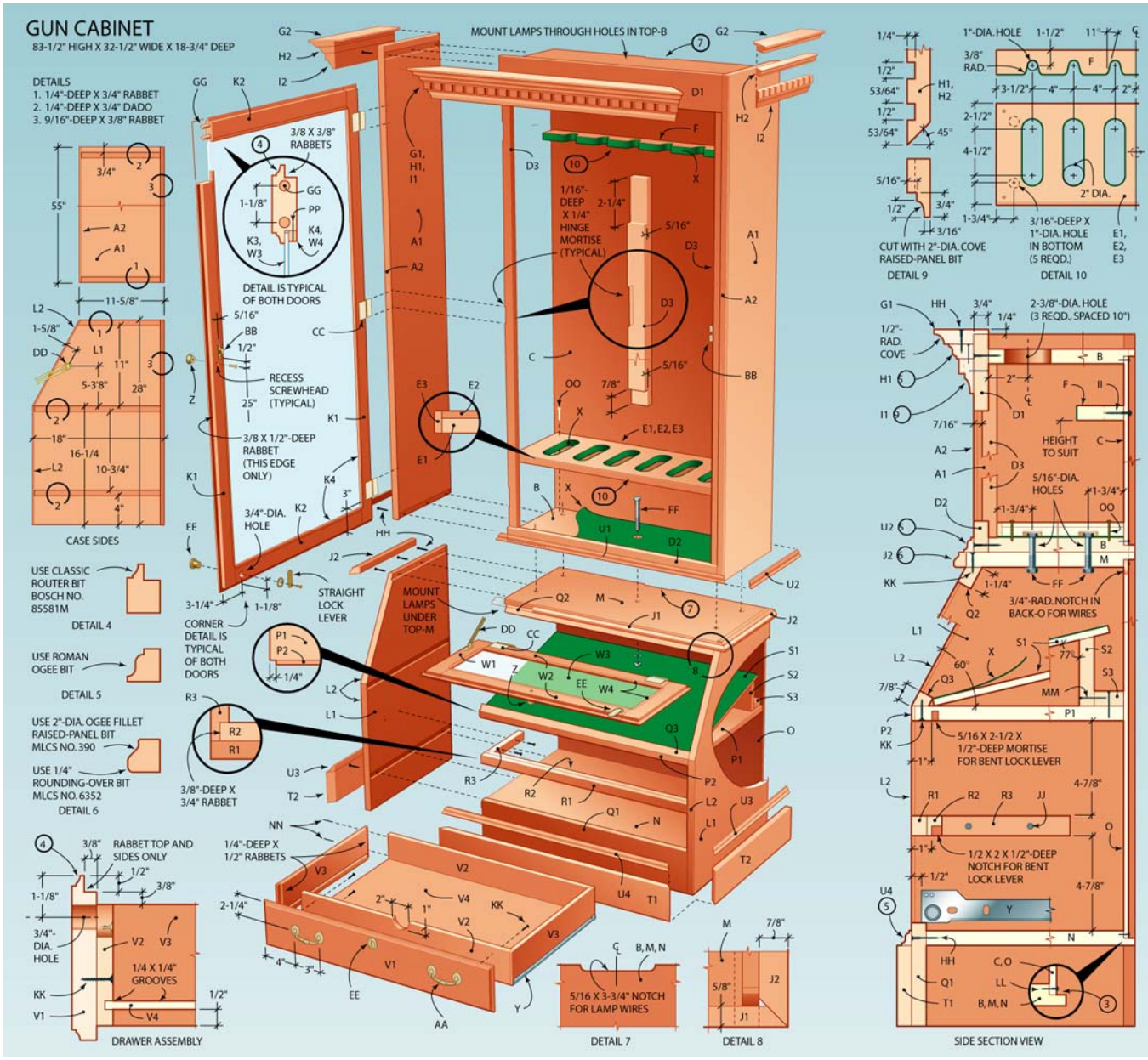


MATERIALS LIST--GUN CABINET		
Key	**No.**	**Size and description**
A1	2	3/4 x 11 7/16 x 55" cherry plywood (side)
A2	2	3/16 x 3/4 x 55" cherry (edge band)
B	2	3/4 x 10 7/8 x 27 1/2" cherry ply. (top/bottom
C	1	1/4 x 27 3/4 x 53 1/2" cherry plywood (back)
D1	1	3/4 x 3 7/8 x 27" cherry (rail)
D2	1	3/4 x 1 5/8 x 27" cherry (rail)
D3	2	3/4 x 1 x 52 3/4" cherry (stiffener)
E1	1	1/2 x 9 7/16 x 27" plywood (butt rest)
E2	1	1/4 x 9 7/16 x 27" plywood (butt rest)
E3	1	3/16 x 3/4 x 27" cherry (edge band)
F	1	3/4 x 21/2 x 27" cherry (barrel rest)
G1	1	3/4 x 2 3/4 x 32 1/2" cherry (molding)
G2	2	3/4 x 2 3/4 x 13 5/8" cherry (molding)
H1	1	3/4 x 1 1/4 x 31" cherry (molding)
H2	2	3/4 x 1 1/4 x 12 7/8" cherry (molding)
I1	1	3/4 x 1 3/4 x 30" cherry (molding)
I2	2	3/4 x 1 3/4 x 12 3/8" cherry (molding)
J1	1	5/8 x 3/4 x 30 1/4" cherry (molding)
J2	2	3/4 x 7/8 x 12 5/8" cherry (molding)
K1	2	3/4 x 2 3/8 x 50 1/8" cherry (stile)
K2	2	3/4 x 2 3/8 x 22 7/8" cherry (rail)
K3	1	1/8 x 23 1/2 x 46" acrylic sheet
K4	1	1/4 x 5/16 x 144" cherry (retainer)
L1	2	3/4 x 17 13/16 x 28" cherry plywood (side)
L2	1	3/16 x 3/4 x 120" cherry (edge band)
M	1	3/4 x 12 x 27" cherry plywood (top)
N	1	3/4 x 17 1/4 x 27 1/2" cherry plywood (botto
O	1	1/4 x 23 1/4 x 27 3/4" cherry plywood (back)
P1	1	3/4 x 17 7/16 x 27 1/2" plywood (shelf)

P2	1	3/16 x 3/4 x 27" cherry (edge band)
Q1	1	3/4 x 5 1/8 x 27" cherry (rail)
Q2	1	3/4 x 1/4 x 27" cherry (rail)
Q3	1	3/4 x 7/8 x 27" cherry (rail)
R1	1	3/4 x 1 x 27" cherry (divider)
R2	1	3/4 x 1 x 26 1/4" cherry (divider)
R3	2	3/4 x 1 x 7 1/4" cherry (divider)
S1	1	3/8 x 16 x 26 7/8" plywood (platform)
S2	1	3/4 x 3 5/8 x 26 7/8" cherry (support)
S3	1	3/4 x 1 1/2 x 26 7/8" cherry (cleat)
T1	1	3/4 x 4 x 30" cherry (molding)
T2	2	3/4 x 4 x 18 3/4" cherry (molding)
U1	1	1/2 x 3/4 x 29 1/2" cherry (molding)
U2	2	1/2 x 3/4 x 12 1/8" cherry (molding)
U3	2	1/2 x 3/4 x 18 1/2" cherry (molding)
U4	1	1/2 x 3/4 x 29 1/2" cherry (molding)
V1	2	3/4 x 5 x 27 5/8" cherry (drawer face)
V2	4	1/2 x 3 3/4 x 25 1/2" plywood (drawer front/back)
V3	4	1/2 x 3 3/4 x 16" plywood (drawer side)
V4	2	1/4 x 15 1/2 x 25 1/2" plywood (drawer bottom)
W1	2	3/4 x 2 3/8 x 11 1/4" cherry (stile)
W2	2	3/4 x 2 3/8 x 22 7/8" cherry (rail)
W3	1	1/8 x 7 1/8 x 23 1/2" acrylic sheet
W4	1	1/4 x 5/16 x 72" cherry (retainer)
X*	1	self-adhesive green felt, part GF 27
Y*	2	drawer slides, part GR 6040
Z*	2	door knobs, part SBH 88
AA*	2 pr.	drawer pulls, part SBH 83
BB#	1	twin-ball catch, part LA 511 3 PB
CC#	3 pr.	hinges, part AO 7697 3
DD*	1	lid support, part 96J6
EE#	4	locks, part N8073 03 642
FF	5	5/16" carriage bolts
GG	16	5/16 x 2" dowels
HH	3	1 1/2" No. 8 fh screws
II	3	1 1/4" No. 8 rh screws

JJ	4	1 1/4" No. 6 fh screws
KK	10	1" No. 6 drywall screws
LL	46	1/2" No. 6 pan head screws
MM	10	1 1/2" finish nails
NN	40	1" finish nails
OO	4	1" 18-ga. brass escutcheon pins, part 853-6
PP	63	5/8" 19-ga. nails

Misc:Watco Danish Oil, semigloss polyurethane, sandpaper, wood glue.
*Constantine's, 2050 Eastchester Rd., Bronx, NY 10461; 800-223-8087.
#Woodworker's Hardware, P.O. Box 180, Sauk Rapids, MN 56379; 800-383-0130.
+Woodworker's Supply, 1108 North Glenn Rd., Casper, WY; 800-645-9292.



Case Construction

The gun cabinet is really two separate cases built from cherry plywood. To make each case look like it is built from solid lumber, edge bands are glued to the front edge of each case panel. The drawer fronts and doorframes are solid cherry.

The first step in case construction is to rough cut the plywood into smaller panels that you then cut to finished size on a table saw. The rough cut is made with a circular saw. Be sure to position the plywood so that the surface that will become the outside is facing down.

The finished cuts are made on the table saw. To

1--Use a strip of wood and a pair of blocks to position the guide strip on the case side. Nail the strip to the panel.

make the angled cuts on the lower case pieces, take each rough-cut panel and nail a 3/8 x 3/4 x 24-in.-long tack strip to it as a guide. The tack strip rides in the saw's miter gauge slot. To position the tack strip accurately, first nail a positioning strip to the panel and then butt spacer blocks to it. Butt the tack strip to the blocks, and nail it in place (Photo 1). Slide the tack strip into the miter gauge slot, and feed the panel through the blade (Photo 2).

2--To cut the angle on each side panel, slide the guide strip in the miter gauge groove and push the panel through the blade.

The next step is to cut the dadoes and rabbets in the case panels with a router and straight bit. When cutting the dadoes for the horizontal panels, be sure to use a 23/32-in. straight bit because this is the actual thickness of 3/4-in. plywood.

Mark the position of the dadoes on each side panel and make a dado jig to guide the router. Note that the jig uses a pair of guide rails that are spaced apart by a distance equal to the router's width. The two guide rails are fastened with crossrails at either end, and these are positioned so the panel slides snugly between them. Use the router and the panel to position the rails. To cut the dadoes, clamp the jig in place and run the router right through the crossrails at either end (Photo 3). This ensures a nice clean cut with no tearout at either end of the dado and a dado of the exact width needed.

3--Use a router with a straight bit and a parallel fence jig to cut the rabbets and dadoes in the case sides.

Next, use a smooth-cutting blade to rip the edge strips. Cut them to finished length, apply glue to them and the panel edges, and then hold them in place with masking tape (Photo 4). Drive a tiny 1/2-in. 20-ga. brad near the end of each strip to help hold it in place. When the glue has dried, carefully plane the strips flush to the panel's surface, and use a chisel to cut the strip away at the top corner of the lower case (Photo 5).

4--The edge banding is glued, and held in place using masking tape. A pair of brads in each band keeps it from slipping.

Before assembling the case, remember to bore holes for the low-voltage lighting in the horizontal panels of the upper case. Also, make the crossrails for the upper case. The upper case sides, crossrails and horizontal panels are glued and clamped together. Drive screws through the case sides and into the horizontal panels. Do the same with the lower case--in both instances the

screws will be hidden by the moldings. Mark, cut and install the stiffeners in the upper case. Note that the stiffeners are notched behind the top rail and the left one is mortised to clear the hinge leaf. Cut and temporarily install the back panel, and then cut the shallow wiring recess in the top horizontal panel.

Glue, clamp and screw the lower case sides to the horizontal panels (Photo 6). Next, attach the beveled upper and lower middle rails with glue and screws. Note that the drawer divider is not permanently installed in the lower case until after the drawers are mounted and the locks are installed in the drawer fronts.

Moldings

The cabinet's dentil molding is made with a router and a 1/2-in.-dia. straight bit. Bolt a fence to the router's base 53/64 in. from the bit. Rip the molding stock and joint its edges so they are parallel and the ends square. Make the first dado cut, move the fence into the groove, make the second cut and continue on in this fashion until the molding is complete (Photo 7). Make several passes on the router table to cut the thumbnail molding on the dentil's lower edge (Photo 8).

5--The edge banding blocks the rabbet at the top of the lower case. Use a chisel to pare away the edge band at this point.

6--Glue and clamp the case sides to the horizontal panels and drive screws into the upper and lower panels.

7--The dentil molding is cut using a router with a guide strip screwed to its base. The strip rides in the previously cut dado.

8--Cut the molding on the lower edge of the dentil molding using a router table and a cove raised-panel bit.

Cut the rest of the moldings for the cabinet on the router table, then rip them off on the table saw (Photo 9).

9--Cut the ogee moldings on the edge of a wide board, then rip the molding off the board on the table saw.

Attach the moldings to the case, beginning with the dentil. Clamp it in place, and mark its miters. Bore pilot holes in it for alignment nails. Glue and clamp the molding and drive the nails through it. Attach the side dentil moldings in the same sequence.

To apply the ogee molding above the dentil, follow the same sequence, but don't nail the molding to the case. Attach it to the dentil molding with nails from above (Photo 10).

10--The ogee molding above the dentil is held in place with glue, and nails driven into the molding below.

Supports, Doors, Drawers And Lighting

Make the butt-rest panel, then bore 2-in.-dia. holes in it, and saw out the waste between them. Trim the cutouts using a router and flush-trimming bit. Run the router against a plywood fence clamped to the panel (Photo 11).

11--Smooth the slots in the butt rest using a flush-trimming bit and a router. Run the router along a fence clamped in place.

Cut out the barrel rest, bore a series of 1-in.-dia. holes in it, and make a series of cuts tangent to the holes using a sabre saw. Make the pistol platform, cover it with felt and leave it aside to be installed after the cabinet is finished.

Next, rip and crosscut the door rails and stiles. Mark the centerlines on the pieces, and use a dowel jig to bore holes in either the rails or the stiles. Insert dowel centers in the holes and align the parts using a framing square. Press the parts together (Photo 12), and use a dowel jig to bore holes on the marks (Photo 13). Insert dowels in the holes, then glue and clamp the assembly. Sand the doors using a random-orbit oscillating sander (Photo 14).

Cut the glazing rabbets inside the doors, and cut the molded edges on them. Cut the door's glazing strips, and round the strip ends to fit the rabbets. Buy acrylic glazing cut to size, then sand the glazing s corners to fit the rabbets. Install the

glazing after the case is finished.

Now, lay the upper and lower cases on their backs, and temporarily install the door hinges. Lay each door in place over the hinge. Press down on the door, so that a small dimple on the hinge marks the hinge's position on the door (Photo 15). Remove the door, and lay it on the workbench. Position a hinge on the dents and use the hinge as a template to bore the screwholes.

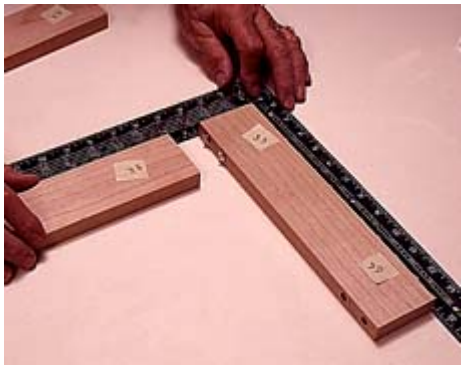
Rip, crosscut and joint the drawer parts, then cut the rabbets and grooves in the parts. Also cut a half circle in each drawer box for lock clearance. Glue and clamp the drawer boxes. Make the drawer fronts and bore a lock hole in each.

Install the drawer slides in the case per the manufacturer's directions. Mount each drawer box in its slides and drive four drywall screws through each drawer front. Hold the drawer front in front of the drawer boxes and press the drawer front against the drywall screws to mark the drawer front location on the box (Photo 16). Bore pilot holes on the marks, mount the locks on the drawer fronts, and install the drawer fronts.

Mark the location of the lock cam levers on the drawer divider and on the bottom of the pistol compartment shelf. Remove the divider and shelf, and then cut the mortises to accommodate the lock cam lever. Reinstall the divider.

Now stack the cases, clamp them together and bore holes for the connecting bolts. Bolt the two cases together and carefully finish-sand. We applied two coats of Watco Cherry Danish Oil Finish, followed by two coats of semigloss polyurethane. The finish was applied on the doors, drawers and case assembly separately. Install these components after you are through applying finish on them. The pistol compartment shelf, the glazing in the doors, the gun supports and the plywood back panels are installed after finishing.

The final touch is to install two 3-light, 20-watt halogen Combilight kits. The product is sold at home centers and lighting showrooms. To locate a distributor, contact Lusa Lighting, 26235



12--With dowel centers inserted, press the door parts together while aligning them with a framing square.

13--Use the marks created by the dowel centers to position the dowel jig. Bore the remaining dowel holes.

14--Sanding door rails and stiles can be tricky. Use a random-orbit oscillating sander to avoid crossgrain sanding.

Technology Dr., Valencia, CA 91355; 800-779-2946.

15--Small dimples on the hinges will mark the location of the screwholes when the door is pressed on top of them.

16--Press each drawer face onto its drawer box. Four screws driven through the box make registration marks on the drawer face.