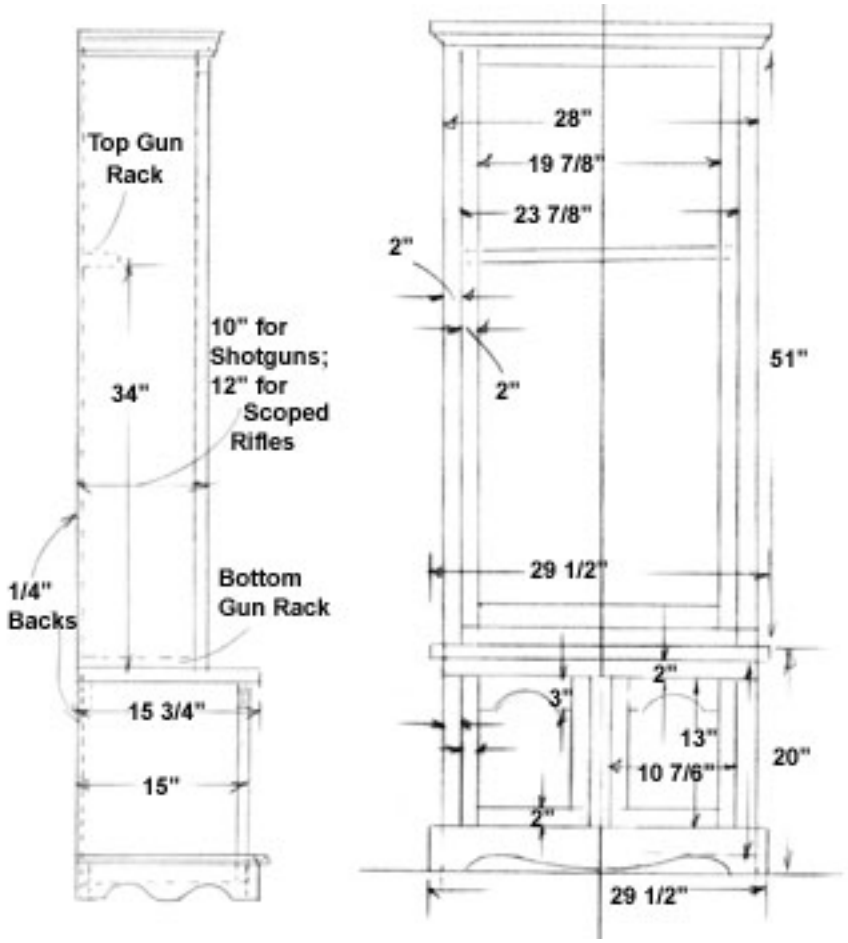
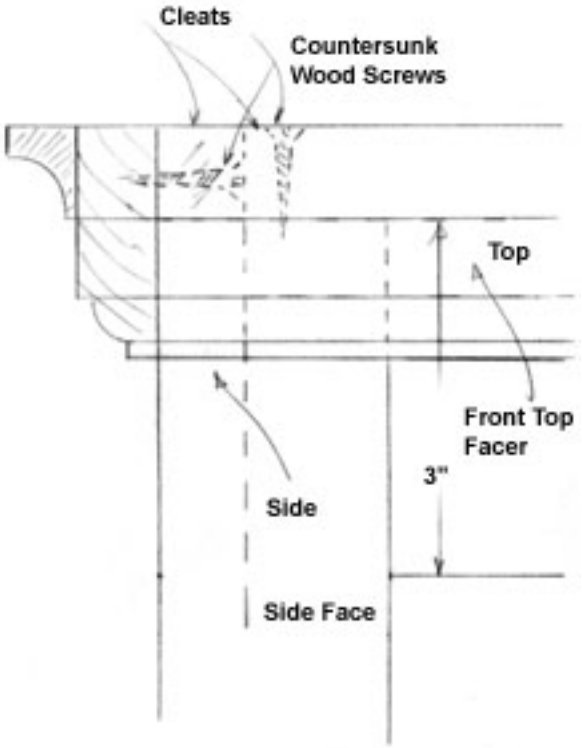
Build a Gun-Trophy Case

A lockable display case can be used to store and display guns, trophies or treasured heirlooms. The case shown is made of walnut, one of the most beautiful woods, and a classic for this type of project. The walnut was grown on the author's farm, harvested and air dried for about five years. The bottom doors are beautifully figured crotch walnut. Oak, pecan or cherry could also be used. The case is constructed in two parts, the bottom and the top sections, and the two fastened together. The top display portion has a keyed lock. You may wish to lock the bottom as well. The top portion is designed to store and display long guns, the bottom for ammunition and accessories. The case shown also features a locking storage vault anchored to the inside. This can be used to store and protect a handgun or other valuables.



Included is a GunVault Mini Vault that features a computer-operated, touch-control panel that opens the spring-loaded vault door in seconds at a touch of your fingers in your own private security code. The Auto Lock protects children and defeats intruders. The GunVault is battery powered, also comes with backup key.



Although the construction appears to be classic casework, new techniques and tools make it much easier to build. Techniques include biscuit joinery as well as the Kreg Pocket-Hole system and a new Raised Panel Door System from Woodline USA.

Left: *First step in construction is to surface plane all pieces that are to be joined to the same thickness.*
Right: *Create Wide boards by using a biscuit joiner to cut slots for the biscuits.*

Because several “wide” boards are needed, first step in construction is to plane all rough wood to the same dimension, in this case 3/4 inch. This makes final sanding and smoothing of the glued-up boards much easier. Surfaced boards can also be purchased. You will still need to joint one edge smooth in order to rip to the sizes needed. This can be done on a jointer or with a hand-held power planer, such as the Ridgid cordless.


Left: *Install biscuits and glue and clamp boards using Titebond Dark Wood Glue.*
Right: *Use a belt sander or drum sander to remove squeezed out glue and smooth the joints.*

Beginning with the bottom section, rough cut the boards to length and width to make up the sides. Lay all boards for one side on a smooth flat surface and mark across their face edges for the biscuits. Letter or number the boards with the same number or letter on joining edges. This makes it easier to assemble when gluing up. Set the biscuit joiner to half the thickness of the boards and cut the biscuits.


Left: *Then progressively, use finer grits of sandpaper to smooth all boards.*
Right: *Kreg Pocket-Hole techniques make it easy to assemble the case, beginning with the face frame for the bottom section. Bore the holes in the uprights.*

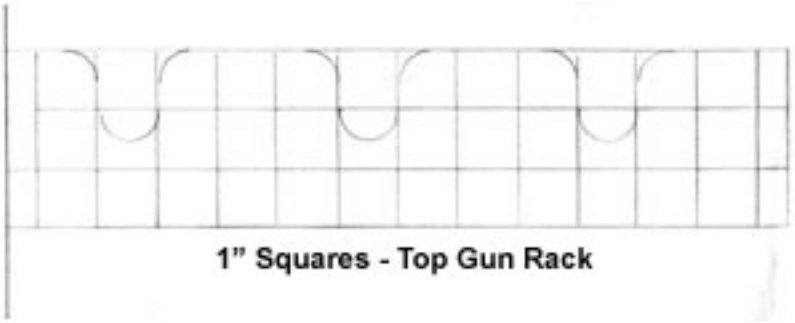
Place newspaper on a workbench top or other smooth flat surface. Position the clamps in place and lay the boards down on the clamps, making sure they align properly. Then, beginning with one board, place glue in the biscuit holes. In this case Titebond Dark Wood Glue was used to go with the dark walnut. Place biscuits in the holes. Place glue in the biscuit holes of the board edge as well as on the joining edge. Continue gluing and adding biscuits until all boards are ready to clamp.

Make sure all face frames and doors are assembled square.

Beginning at each end, pull the boards together with the clamps, making sure the biscuits align. Also make sure all four corners of the glued-up board are down flat on the clamps. Then add clamps between the two end clamps until a bit of glue is squeezed out along the entire joint lines. Allow to dry overnight.

Glue and clamp the face frame pieces together, making sure the assenbly is square, and then install pocket-hole-screws.


Cut rabbets in the rear of the bottom section sides for the back.



The front face frame of the bottom cabinet is assembled as one piece, and then fastened to the sides. In classic construction, this would be joined with mortise-and-tenon joints. A faster and simpler method is to use pocket-hole joints with screws and glue. Place an end of the uprights in the pocket-hole jig and bore holes. Bore holes in the opposite end, and then repeat for all uprights. Place the pieces on a set of clamps, place glue on the ends of the uprights and clamp together. Use a carpenter's square to make sure the assembly is square and all corners are down snug on the clamps. Then fasten solidly together with Kreg hardwood screws. Allow to set overnight.

Left: *Fasten the bottom section sides to the face frame with pocket-hole screws and glue.*
Right: *Install bottom and top back supports. Fasten cleats on the inside of the case and install the bottom.*

Smooth the glued-up bottom sides, removing any squeezed out glue and irregularities in the joints. This can be done with a portable belt sander, power planer, drum sander or with a hand plane. Rout a 1/4-by-1/4-inch rabbet on the inside back edges of the sides. Make sure both inside and outside surfaces are smooth. Cut the bottom sides to final width and height and sand smooth inside and out. To assemble the bottom section, first drill pocket holes in the inside front edges of the sides as well as the top edges. Then, drill pocket holes in the inside edges of the top piece of the frame and the top back support. These will be used to join the top to the bottom section. Apply glue to the front edges of the sides and clamp the front frame to the sides. Install the Kreg hardwood screws to further anchor the parts together. Cut 3/4-by-3/4-inch wood cleats and fasten to the inside of the sides and the bottom front face frame. These are used to anchor and support the case bottom. Cut the case bottom from 3/4-inch plywood. Note it is cut the width of the sides, less the 1/4-inch rabbet. Fasten the bottom in place down on the cleats with glue and screws. Fasten the upper back cross support in place with pocket-holes into the upper

edges of the sides. Again make sure the case is assembled square. Allow to dry overnight, then sand the sides and face edges smooth as well as the front joints of the face frame.


Left: *Cut the bottom case aprons to shape on a bandsaw and sand them smooth.*
Right: *Use a router in a router table to create decorative edges on the aprons, the bottom section top and all trim pieces.*

The face frame for the top section is assembled with glue and pocket-hole joints in the same manner. The back edges of the top side pieces are also routed to receive the back. If using solid wood, rout to the wood thickness. If using walnut plywood, rout to 1/4-by-1/4-inch. If you plan to make the case double-duty as in the one shown, drill holes for shelf pins. If you intend to use it only as a gun case, shelf pins are not needed. To drill the holes, position both upper section side pieces side by side and mark the locations on both at the same time using a carpenter's square. Then use a try-square to mark the distances from the edges. Bore the holes only to the depth needed for the shelf pins. Use a piece of masking tape on the drill bit to mark the depth and make sure you don't bore through the sides.

Assemble the top section by again, using pocket-hole joinery for the face frame, then joining the face frame to the sides with biscuit joints.

Shelf pin holes in the sides provide for shelves if the case is to be a trophy or bookcase.

Assemble the upper case sides and face frame, using biscuit joints, again making sure it is assembled square. Cut the glued-up top piece to fit between the sides, again making it 1/4-inch narrower so it fits flush with the side rabbets. Install with countersunk wood screws through the sides and top frame piece into the top. These will be covered with the top trim pieces. Cut and install the bottom back support piece with glue only, clamping solidly and allowing it to set.



Left: *The bottom section top is fastened to the top section with screws from the underside.*
Right: *Then the bottom section is fastened to the underside of the top with pocket-hole screws.*

Glue up the top piece of the bottom section, again using biscuits to join the pieces. Sand and smooth and cut to final size. Then rout the decorative edge.



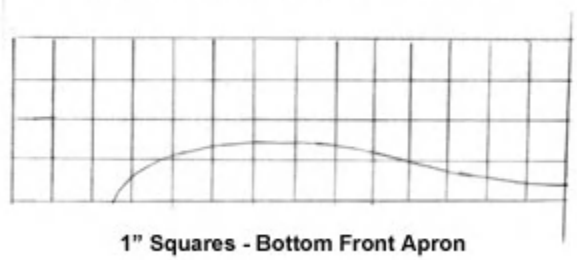
Left: *Install the bottom aprons with glue and screws from the back side.*
Right: *All trim pieces are installed.*

To assemble the cases, fasten the bottom case top piece to the underside of the top case sides, front frame bottom and bottom back support with screws up through the underside of the bottom case top and into the upper case bottom edges. Then fasten the bottom case to the underside of the bottom case top piece with screws through the pocket holes drilled in the sides, top back support and front case top piece.


Left: *The upper door is created using rail-and-stile joinery, strengthened on the back side with pocket-hole joinery. Shown is the profile cut by Woodline.*
Right: *A unique router bit from Woodline is used to cut out the glass channel. This results in a wood strip ready for glue to hold the glass in place.*

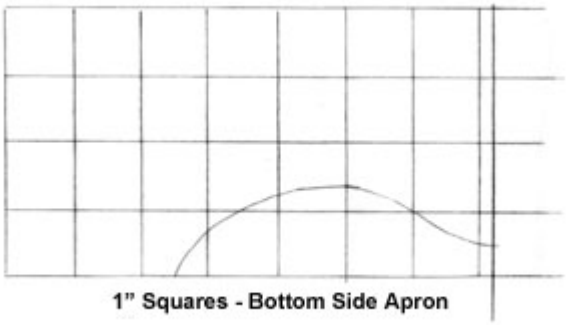
Cut the bottom trim pieces to rough length. Rout the decorative top edges. Then enlarge the squared drawings and create patterns. Cut to shape using a saber saw or bandsaw. Sand all curved surfaces. Cut 45-degree joints for the front edges and fasten to the case bottom with wood screws from the inside of the case sides into the trim pieces. Cut the top trim pieces and rout their edges. Install the top outer trim piece to the inner trim pieces with glue and wood screws. Cut their corner edges at a 45-degree angle and fasten to the top of the case with glue and countersunk wood screws from the inside of the case. Cut walnut plugs and glue over the screws.

Bottom raised panel doors are created using Woodline's new Raised Panel Door System.

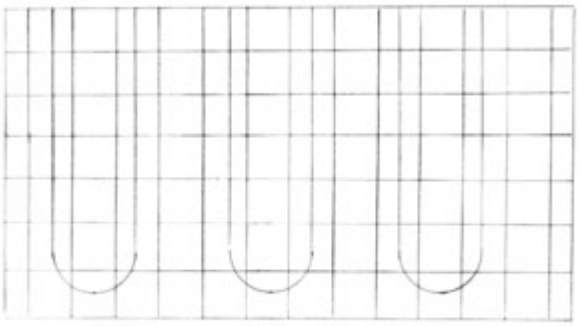


1" Squares - Bottom Front Apron

The next step is to create the upper case door. This is basic rail-and-stile construction. The pieces are routed with the appropriate bits and then glued together. Again, make sure the frame is assembled square. Note: more information on creating rail and stile doors is shown in the article on Creating Frame-and-Panel Doors. After the door has set overnight, cut out the back edge to receive the glass. Woodline USA has made this extremely easy with a special bit designed just for the purpose. And, when you finish, you have a wooden glass-holding strip that can be used to fasten the glass in place. Create the raised panel doors for the bottom section, again using the detailed information in the accompanying article.



1" Squares - Bottom Side Apron



1" Squares - Bottom Gun Rack

Enlarge the squared drawings for the upper and lower gun supports and cut these to shape, then sand smooth. Install the supports in place. Finally install the upper and lower case backs. These can be installed with glue and wood screws or staples or brads.

Note if you're using the case as a trophy case, sand and finish the shelves and install in place on the shelf-holding pins. Or you may prefer to use glass shelves and even add a light to the inside top. Sand and finish the case as well as the doors, install the glass in the upper door and hang the doors.