

A Coffee Table Display Cabinet

Neil Helsby



This coffee table display cabinet makes an interesting piece of furniture that could also be used to display a collection of miniatures in your dolls' house.



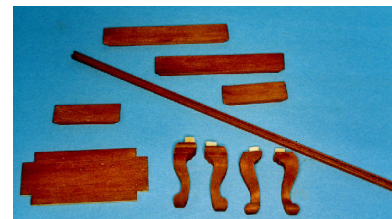
Dimensions can be adjusted, making the cabinet longer, wider or deeper to meet your requirements.

Step 1: Preparing cabinet parts

For the body, cut two long sides 2-1/2" (64 mm) and two short sides 1-1/4" (32 mm) long with 45-degree mitres at each end. Cut the base 2-1/4" x 1" (58 x 26 mm) and undertake a dry run to check all pieces fit neatly. The legs used have a 3/16" (4.75 mm) square shank and corners are cut from the base to allow these to fit. Reduce the leg shanks to 3/32" (2.5 mm), the thickness of the base. Sand all faces of these pieces together with the outer faces of the "U" channel strip.

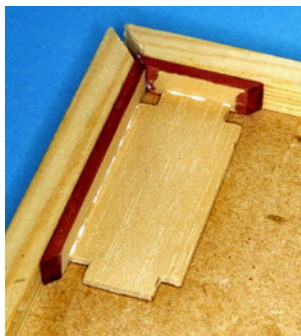
Step 2: Staining

Stain the outer faces and edges of the box sides, the bottom of the base, all but the shanks on the legs and all outer faces of the "U" channel. "Victorian Mahogany" water based stain was used on the miniature illustrated.



Step 3: Assembly

(a) To assemble the cabinet body, glue one long side, an end and the base together in the corner of the gluing cabinet.



(b) When the glue has set, fit the remaining two sides.

(c) Turn the cabinet upside-down, spread glue over the shank of



each leg and press them into place, checking that the curved faces point outwards. Mark the top faces of a pair of leg shanks on diametrically opposite corners "1" and "2" for later orientation.

Step 4: Varnishing

Sanding between coats, apply two coats of varnish to all stained surfaces of the assembly and the "U" strip. The legs may be porous and will require a third coat to obtain a satisfactory finish.

Step 5: Preparing the lid

The lid is made to fit the cabinet body. Checking the size of your miniature, cut four pieces from the "U" channel with mitred corners, marking a mitre end on each part where it coincides with a leg shank "1" or "2". Place them on the cabinet body to check each piece will be fit to the correct side and the right way up. Touch up the mitred ends with stain.



Step 6: Cutting the "glass" top

Measure the depth of the "U" channel and, knowing the overall dimensions of the display cabinet, calculate the size of glazing. Sawing slowly so as not to generate heat, cut the glazing to size with a coping saw slightly smaller than the calculated dimensions to ensure a neat fit when glued in position.

Step 7: Assembling the lid

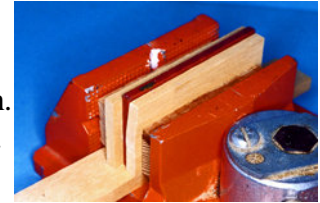
To perfectly match the lid to cabinet, assemble the parts on the cabinet top taking care that no glue oozes onto the cabinet. First mix a small amount of epoxy resin. Using the number annotation to ensure correct assembly, spread a thin layer wood glue over a mating pair of one corner joint and immediately use the tip of a cocktail stick to drop several spots of the resin into the base of the "U" channel of these parts. Slide the glazing into these parts, pushing them to meet in the corner and, placed on top of the cabinet, check alignment. When the glue has set, fit a third side by spreading wood glue over the mitred corner and another mix of epoxy resin into the channel. Temporarily push the last side into position using this to ensure the lid locates accurately. When this resin has set, attach the fourth piece in the same way.

Step 8: Fitting out

To line the interior of the cabinet, cut and shape a rectangle of the carpet material to fit the base. Remove the backing and press it firmly into place. Measure the depth of the cabinet and cut a strip to that width and slightly longer than the total length of all four sides. Before removing the backing, place one end of the strip into a corner and press it against the side. Pressing it firmly into each corner with an off cut of timber, position the strip round the cabinet sides. Mark the place where it meets the start and cut it to length. Removing a short length of backing at a time, firmly push the material into place. Use the timber again to force the strip into the corners and hold it in place as the remainder of that side is fitted.

Step 9: Hinges

Hinges are fixed with two-part epoxy resin using only a small quantity to ensure none creeps into the mechanism. Mark the face of the lid where the hinges fit and carefully scrape away the varnish. Using scraps of timber to protect the lid, hold it vertically in a vice. Mix a small amount of epoxy resin and smear a thin layer of the adhesive on the lid face. Using a pair of tweezers to hold a hinge, and, aligning it accurately, drop it into position. Hold it in place with the tip of a cocktail stick until the adhesive hardens sufficiently to retain it in position. Mixing another batch of adhesive, fit the second hinge and leave the assembly until it has fully hardened.



Step 10: Final assembly

Place the lid onto the cabinet body and mark the location of the hinges. Scrape away the varnish and, keeping it clear of the mechanism, smear the backs of both hinges with a thin layer of adhesive. Placing the lid on the cabinet, push the hinges against the cabinet sides and allow the adhesive to harden.

Step 11: Completion

Place items to be displayed in the coffee table cabinet. To enable the cabinet to be picked up for closer appraisal, display items could be permanently fixed in place.

Buying List

Timber Strips (1 length each, 12" [305 mm] long):

Sides: 3/8" x 1/8" (9.5 x 3 mm)

Base 1" x 3/32" (25.4 x 3 mm)

"U" channel: 1/8" x 1/8" (3 x 3 mm)

Perspex: 1/16" (1.5 mm) thick

Hinges: Less than 1/8" (3 mm) leaf width and 3/16" (4.5 mm) long

Cabriole legs: 1-1/8" (28 mm) nominal leg length

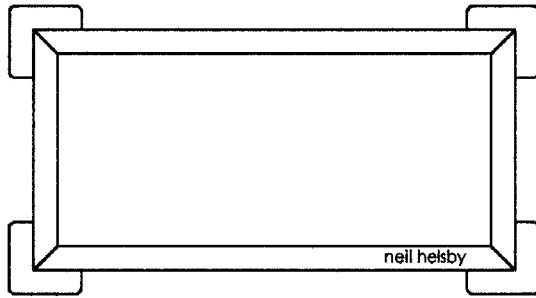
Interior cover: Self adhesive backed carpet, colour as required

Suggested Suppliers

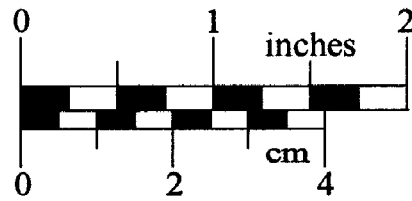
Jelutong timber: Wood Supplies of Wallington.

1/16" (1.5 mm) perspex: Wood Supplies of Wallington.

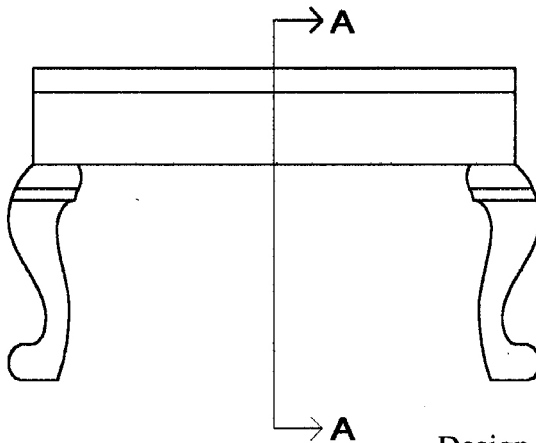
Plan View



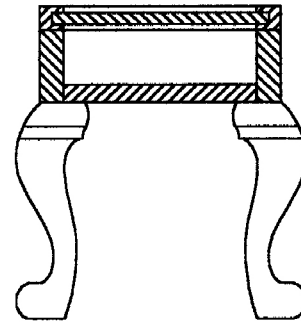
Coffee Table Display Cabinet



See text for dimensions



Side View



Design by **neil helsby**
For personal use only - Not to
be used for commercial gain.
© 2008

Section on A - A