

Do It Yourself

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Mahogany Headboard -- Stock for Legs and Rails

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episode WWK-403 -- [More Projects »](#)

Templates and Mahogany Stock for the Legs and Rails

In this episode of *DIY Wood Works*, host David Marks builds a sturdy headboard of mahogany, with richly grained quilted-mahogany panels. A time-honored technique of frame and panel construction is used to build this original and distinctive headboard. A sturdy frame of solid mahogany surrounds highly figured veneered panels.

Mortise and loose-tenon joinery is used in combination with biscuit joints to bring the assembly together. David shows how to seamlessly join thin sheets of commercial veneer and gives tips on how to use a vacuum press to glue veneers onto a substrate.

The finished headboard is 68 inches wide, and the top of the legs stand 50 inches tall. The center of the headboard sweeps just above the legs, to a final height of 51 inches.

Materials:

Mahogany stock
MDF for mockup
Table saw
Multi-router
Band saw
Table router
Disc sander
Straight-edge; ruler
Carpenter's pencil
Safety glasses or goggles

Note: Cut sizes may vary. For exact measurements, please contact David Marks through his Web site -- information below under Resources.



This headboard combines the natural art of deeply grained mahogany with sturdy frame-construction.



The book-matched veneered panels of quilted mahogany are a stunning feature of this piece.



Figure A

Safety Alert: *Always* wear safety goggles or safety glasses when working with wood, power-tools, saws, drills, routers, etc.

Steps:

- The project begins with a full-scale drawing laid out on a sheet on 1/4-inch MDF (**figure A**). Once the design is deemed satisfactory, it is used to create MDF templates for the crest-rail and the top of the leg. The drawing also assists in determining the layout of the joinery.
- Once the stock has been cut to size, it is laid out according to the drawing (**figure B**). For the legs, mahogany 12/4-stock is used, and is milled to 51 inches long. The leg-stock has been cut slightly long to allow for the shaping. The bottom rails are cut from 8/4-stock, and are 61 inches long. The two center-stiles are thinner, and are 28 inches long. The crest-rail is the same thickness and length as the bottom rail, but is 8-1/2 inches wide -- leaving room to cut in the curve. The pieces of the frame will be connected using mortise and loose-tenon joinery. The full-scale drawing is used to mark the placement of the mortises. The joinery is cut while the stock is still square.
- Using the MDF template based on the drawing, trace out the curve of the crest-rail onto the mahogany crest-rail stock (**figure C**). By laying out the curve on the crest-rail in this fashion, exact positioning and marking of the mortise-cuts is possible.
- Using the other template, trace the complementary curve onto the leg stock (**figure D**).
- For strength, two mortises are cut on each end of the crest-rail. These are laid out and marked 1/2-inch up from where the curve begins (**figure E**). This leaves room for a dado that will be cut later. The dado will hold the veneered panels in place.
- Once the layout marks are made, use the multi-router to batch-cut all of the mortises in the ends of the crest-rail (**figure F**), bottom rails, legs and stiles.
- The multi-router makes easy work of this repetitive task, and makes accurate, uniform mortise-cuts. Each of the mortises is 1-



Figure B



Figure C



Figure D



Figure E



Figure F

1/2 inches long, 1 inch deep and 3/8-inch thick (**figure G**).

Note: If you don't have access to a multi-router, you could cut the mortises using a plunge router. If you use this technique, make sure that you make appropriate use of fence and jigs to ensure precision.

- Once the mortises are cut, you can begin work shaping the crest-rail and legs. Begin by cutting the curve on the crest-rail using the band saw (**figure H**). Cut the curve about 1/16-inch shy of the layout mark to leave room for shaping.
- Use the same technique on the band-saw to cut out the curved shape on the top of the leg (**figure I**).
- Flush the curved edges of the crest-rail smooth at the router table, using the curved template as a guide (**figure J**). Use a spiral carbide router-bit, with a 2-3/4-inch cutting surface. Since this bit is so large, it's advised that you use a variable-speed router, set at a lower speed (10,000 to 16,000 rpm).
- Smooth the curve on the top of the legs using the disc sander (**figure K**). Since the curve at the top of the leg is end-grain, this method helps avoid splintering.

In the segment that follows, the quilted-mahogany veneered panels are edge-glued together.

[Click here](#) to order your tools and materials for this project from **Woodcraft!**

RESOURCES:

Fine Woodworking

A magazine devoted to high-quality craftsmanship in woodworking.

The Taunton Press Inc

Newtown, CT 06470

Phone: 203-426-8171

Fax: 203-426-3434

Email: service@taunton.com



Figure G



Figure H



Figure I



Figure J



Figure K

Woodworking Techniques: Best Methods for Building Furniture from Fine Woodworking

Model: 1561583456

Author: Fine Woodworking Magazine

The Taunton Press Inc

Newtown, CT 06470

Phone: 203-426-8171

Fax: 203-426-3434

Email: service@taunton.com

Mastering Woodworking Machines (Fine Woodworking Book)

Model: 0942391985

Author: Mark Duginske

David Marks Website

David Marks, DIY's *Wood Works* host, is a master woodworker. For more information on cut sizes and project details, please contact him via his Website at www.djmarks.com

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