

Do It Yourself

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Contemporary Headboard -- Shaping and Finishing

From "[Wood Works](#)"

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With the frame assembled and the glued, and the back-panel cut to fit, the mahogany headboard is nearly complete. The finishing touches include using a variety hand-tools for finely shaping the curved-rail portion of the frame, installing the back panel and applying a dark wood finish.

Materials:

Hand-held router; 3/4-inch radius bit

Wood-shaping hand tools -- e.g., wood rasp, scraping plane, micro-plane

Potassium dichromate dye

Paint brushes

Clean rags

Protective rubber gloves

Mahogany trim strips; wood screws

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

Safety Alert: Always wear protective gloves when working with wood stains and solvents.

Shaping the Curved Rail

Steps:

- With the headboard profile established, the final bit of artistry required is the three-dimensional shaping of the curved rail. A hand-held router with a 3/4-inch radius bit is used first in order to trim away the sharp edges (**figure A**), and begin bringing out the oval shape of the rail. With one side of the rail rounded with the router, the headboard is flipped so that a matching rounded shape can be achieved on the other side.



The completed mahogany headboard is given a dark, chocolate stain by using a potassium dichromate finish.



Exposed-spline joinery is used to hold the frame-members together, creating the curved form.



The dark finish warms

- After the router has been used to smooth off the outside edges of the frame, it is used to do the same to the inside edges -- stopping short of the bottom portion of the arch where it joins with the leg. A wood rasp is then used to blend the 3/4-inch radius of the rail with the 1/8-inch radius on the inside of the leg (**figure B**). In our demonstration, David Marks used a #49 pattern-maker's rasp for this detail work.
- With the radius-trimmed portions of the frame blended together, a combination of hand tools are used to finish off the rest of the frame, creating a tapered oval shape for the curved rail. In our demonstration, a Japanese scraping plane (**figure C**) was used first.
- A micro-plane (**figure D**) and hand-scraper were then used to further smooth the contour.
- After some hand-sanding, the headboard is complete and ready to accept the wood finish.

Potassium Dichromate Finish

Steps:

- For the finish on this piece, a dark-staining potassium dichromate was selected. Brushed onto mahogany, this finish gives the wood a deep, dark chocolate color. The dye comes in the form of orange-colored crystal that dissolves in water.
- Several coats of dye (**figure E**) will be required to achieve the desired rich, dark finish.
- Once the potassium dichromate has been applied and had time to dry, apply a treatment of tung oil to produce a warm, hand-rubbed finish.
- **Important:** When using water-based dyes, the water will tend to raise the grain of the wood. To compensate for this, the wood was wetted slightly, allowed to dry and then sanded smooth.
- **Safety Alert:** Potassium dichromate is a toxic chemical. Read and

the figure of the wood, and accentuates the hand-shaped curve of the rail.



Figure A



After some preliminary shaping with a router and radius bit, David Marks uses a wood rasp to finish giving the curved rail a graceful oval shape.



Figure B



follow all safety precautions that come with the dye chemicals.

Thin strips of mahogany trim (**figure F**) are used to attach the back-panel to the backside of the finished frame. The trim pieces are dyed and finished to match the rest of the headboard.

To fix the panel in place, glue is applied to the edge of the panel and into the rabbet cut into the backside of the frame. The panel is then lifted into position (**figure G**), and the trim is attached with screws to hold it in place. When the glue dries, the headboard is complete.

This contemporary design exhibits understated elegance. The exposed-spline joinery adds strength and subtle visual accents, and the dark finish warms the figure of the wood.

Tip: For maintenance, rub the piece with a soft cloth with a few drops of lemon-oil applied. This will remove dust and help maintain the rich glow of the wood.

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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

The Small Wood Shop (The Best of Fine Woodworking)

Model: 1561580619

Author: Helen Albert (Editor)

Woodworking Techniques: Best Methods for Building Furniture from Fine Woodworking

Model: 1561583456

Author: Fine Woodworking Magazine

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Figure C



Figure D



Figure E



Figure F



Figure G



Host David Marks shows

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off the completed
mahogany headboard.

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

Beds and Bedroom Furniture: The Best of Fine Woodworking

Model: 1561581917
Author: Editors of Fine Woodworking
(1997)

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The Complete Woodworker's Companion

Model: 0823008665
Author: Roger Holmes
(1996)

Watson-Guptill Publications
Lakewood, NJ 08701-9914
Phone: 908-363-5679
Fax: Private

The Complete Book of Wood Joinery

Model: 0806999500
Author: Richard J. Descistoforo
(1997)

Sterling Publishing Co. Inc.

New York, NY 10016
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Fax: 800-542-7567

Advanced Woodworking

Model: 0783539126
Author: Editors of Time Life Books
1998
Time-Life Books Inc.
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Phone: 703-838-7000
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Popular Woodworking Magazine (F & W Publications, Inc.)

F & W Publications, Inc.
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