

WOODWORKER'S JOURNAL

"America's leading woodworking authority"™

Classic Project



In this plan you'll find:

- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

Oak Plate Rack



Oak Plate Rack



To download these plans, you will need **Adobe Reader** installed on your computer. If you want to get a free copy, visit: <http://adobe.com/reader>.

Having trouble downloading the plans?

Right click on the download link and select "Save Target As..." or "Save Link As..." (depending on the web browser you are using) to download to your local drive.

Our Mission-style oak rack is the perfect place to display those prized plates and cups or collectibles. A 10 ft. length of $\frac{3}{4}$ in. thick by $6\frac{1}{4}$ in. wide stock will provide all the wood parts. A source for the hand-forged cup hooks (F) we used is listed in the Bill of Materials.

Start by laying out and cutting the sides (A) and shelves (B, C) to length and width. Then cut the mortises and tenons. Use a drill to remove most of the mortise waste, and square the mortises with a chisel. The tenons on the top end of the sides and on the bottom shelf are all 3 in. wide, so you can use the same table saw setup for the shoulder cuts. Raise your blade to a $1\frac{1}{2}$ in. height and use the miter gauge to make one shoulder cut, then flip the stock and cut the opposite shoulder. Use a stopblock to insure accuracy.

Use a sharp handsaw to make the ripping cuts that complete the tenon. An easy way to get a square cut is to clamp a length of scrap on the tenon side of the cut as a guide. Make your cut just off the line, then clean up the cut with a chisel. The $\frac{1}{16}$ in. radius plate grooves in the two shelves are cut with a $\frac{1}{8}$ in. diameter core box bit using the router and an edge guide.

Use the full-size pattern to lay out the decorative cutouts in the sides. A $\frac{1}{2}$ in. diameter drill bit will produce the circles at

the ends of the center cutouts, and a $\frac{3}{16}$ in. diameter bit will cut the round end of the teardrops, but the rest of the cuts will require either a scroll or coping saw. Use files to clean up any roughness.

The remaining details are mostly handwork. A dovetail saw and a chisel will cut the notches in the sides for the rail (D), which slides in and out to allow access for the plates on the bottom shelf. The keys (E) are cut to size and then shaped with rasps and files. Cut the $\frac{1}{2}$ in. by $\frac{1}{4}$ in. key mortises so they are $\frac{1}{16}$ in. from the tenon shoulders. Since the side and shelf stock is $\frac{1}{2}$ in. thick, the $\frac{1}{2}$ in. offset that results will allow the keys to apply pressure as they're inserted.

Chamfer the ends of the tenons and rail and final sand all parts. Then apply an oak stain and lacquer topcoat and, when dry, assemble the shelf.

The hand-forged cup hooks add an authentic look, and we like their large diameter, which easily accepts the big handles found on coffee mugs. However, to save a little money, you can always substitute a hardware store variety cup hook.

The shelf is sized to mount on studs that are 16 in. on-center. Keyhole hangers mortised into the back edge of the sides are the best way to mount the shelf securely.

Published in *Woodworker's Journal* July/August 1990

Copyright *Woodworker's Journal* © 2010
This pattern is copyrighted by *Woodworker's Journal*.
Purchasers of this plan may make three copies for personal use in the shop. The pattern itself, however, is the property of *Woodworker's Journal* and is not to be reproduced for distribution or resale. Doing so, including via any electronic methods, is a violation of copyright law.

www.woodworkersjournal.com

\$1.00
WJC035



Oak Plate Rack

Our Mission-style oak rack is the perfect place to display those prized plates and cups or collectibles. A 10 ft. length of $\frac{3}{4}$ in. thick by $6\frac{1}{4}$ in. wide stock will provide all the wood parts.

Start by laying out and cutting the sides (A) and shelves (B, C) to length and width. Then cut the mortises and tenons. Use a drill to remove most of the mortise waste, and square the mortises with a chisel. The tenons on the top end of the sides and on the bottom shelf are all 3 in. wide, so you can use the same table saw setup for the shoulder cuts. Raise your blade to a $1\frac{1}{8}$ in. height and use the miter gauge to make one shoulder cut, then flip the stock and cut the opposite shoulder. Use a stopblock to insure accuracy.

Use a sharp handsaw to make the ripping cuts that complete the tenon. An easy way to get a square cut is to clamp a length of scrap on the tenon side of the cut as a guide. Make your cut just off the line, then clean up the cut with a chisel. The $\frac{3}{16}$ in. radius plate grooves in the two shelves are cut with a $\frac{3}{8}$ in. diameter core box bit using the router and an edge guide.


Use the full-size pattern to lay out the decorative cutouts in the sides. A $\frac{3}{8}$ in. diameter drill bit will produce the circles at

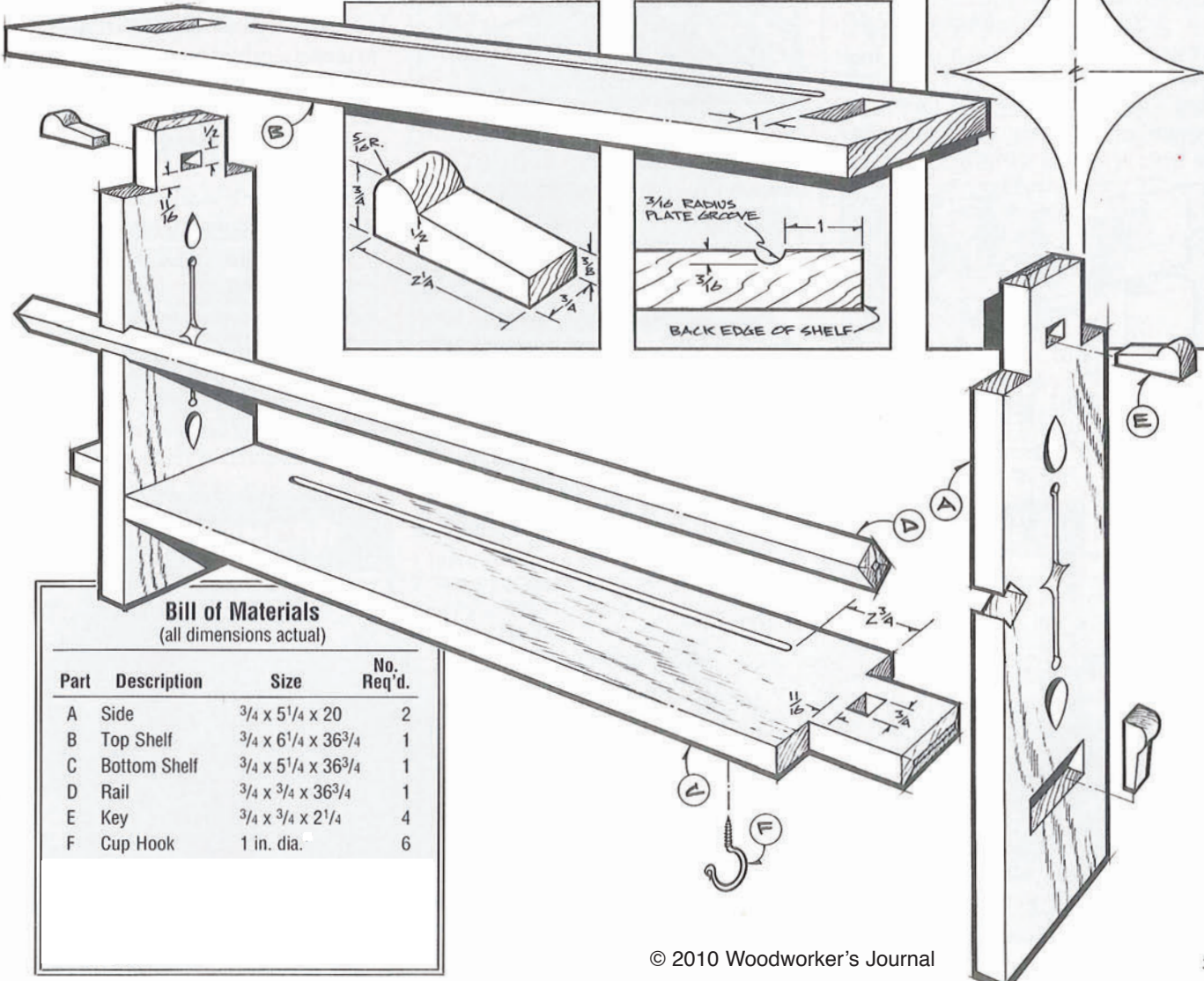
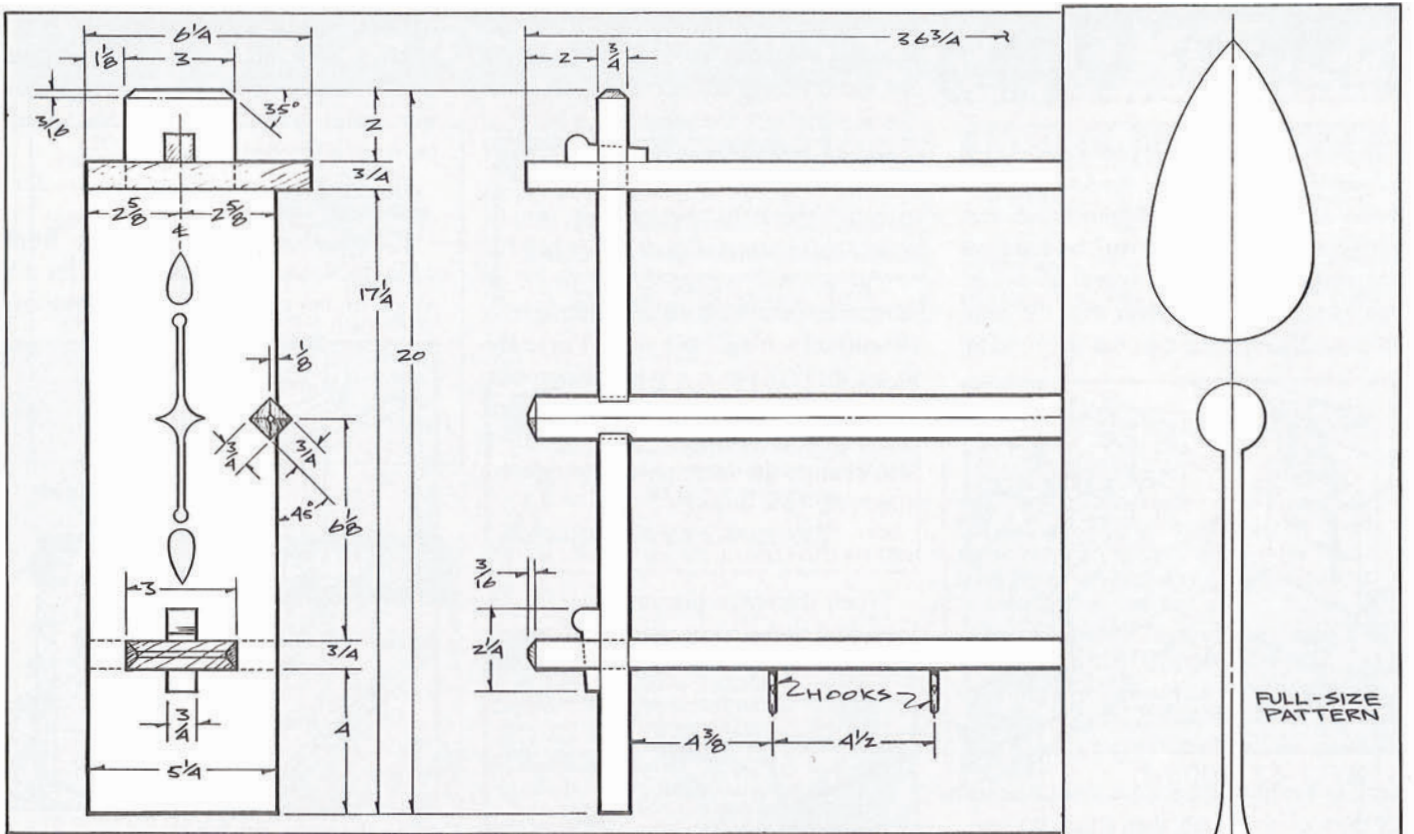
the ends of the center cutouts, and a $\frac{7}{8}$ in. diameter bit will cut the round end of the teardrops, but the rest of the cuts will require either a scroll or coping saw. Use files to clean up any roughness.

The remaining details are mostly handwork. A dovetail saw and a chisel will cut the notches in the sides for the rail (D), which slides in and out to allow access for the plates on the bottom shelf. The keys (E) are cut to size and then shaped with rasps and files. Cut the $\frac{1}{2}$ in. by $\frac{3}{4}$ in. key mortises so they are $\frac{11}{16}$ in. from the tenon shoulders. Since the side and shelf stock is $\frac{3}{4}$ in. thick, the $\frac{1}{16}$ in. offset that results will allow the keys to apply pressure as they're inserted.

Chamfer the ends of the tenons and rail and final sand all parts. Then apply an oak stain and lacquer topcoat and, when dry, assemble the shelf.

The hand-forged cup hooks add an authentic look, and we like their large diameter, which easily accepts the big handles found on coffee mugs. However, to save a little money, you can always substitute a hardware store variety cup hook.

The shelf is sized to mount on studs that are 16 in. on-center. Keyhole hangers mortised into the back edge of the sides are the best way to mount the shelf securely. 



Bill of Materials
(all dimensions actual)

Part	Description	Size	No. Req'd.
A	Side	3/4 x 5 1/4 x 20	2
B	Top Shelf	3/4 x 6 1/4 x 36 3/4	1
C	Bottom Shelf	3/4 x 5 1/4 x 36 3/4	1
D	Rail	3/4 x 3/4 x 36 3/4	1
E	Key	3/4 x 3/4 x 2 1/4	4
F	Cup Hook	1 in. dia.	6

WOODWORKER'S WJOURNAL

Thank you for purchasing this *Woodworker's Journal* Classic Project plan.

Woodworker's Journal Classic Projects are scans of much-loved woodworking plans from our library of back issues. Please note that specific products and sources cited in a plan when it originally appeared may no longer be available.

If you experience any problems with this plan, please contact: info@woodworkersjournal.com

or

Attn: Classic Projects
Woodworker's Journal
4365 Willow Drive
Medina, MN 55340

Thank you again for your purchase, and happy woodworking!

Matt Becker
Internet Production Coordinator