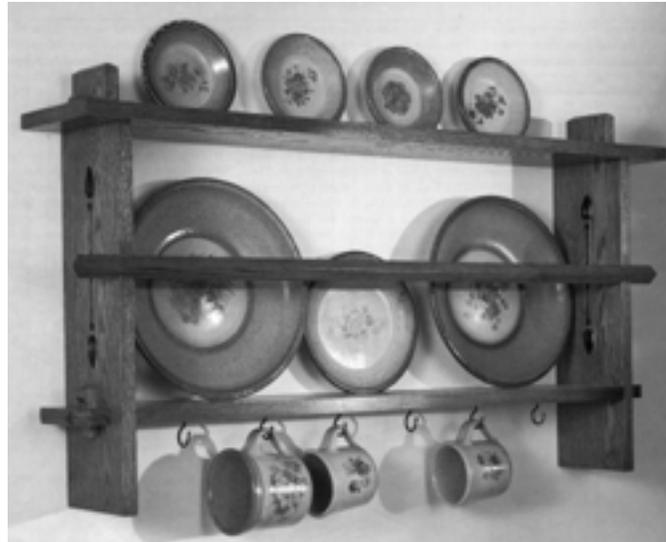


# Project 15185EZ: Oak Plate Rack

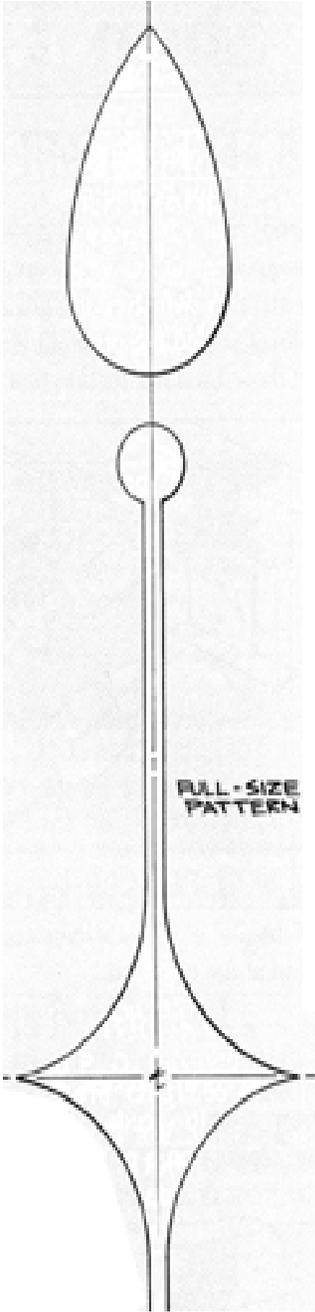


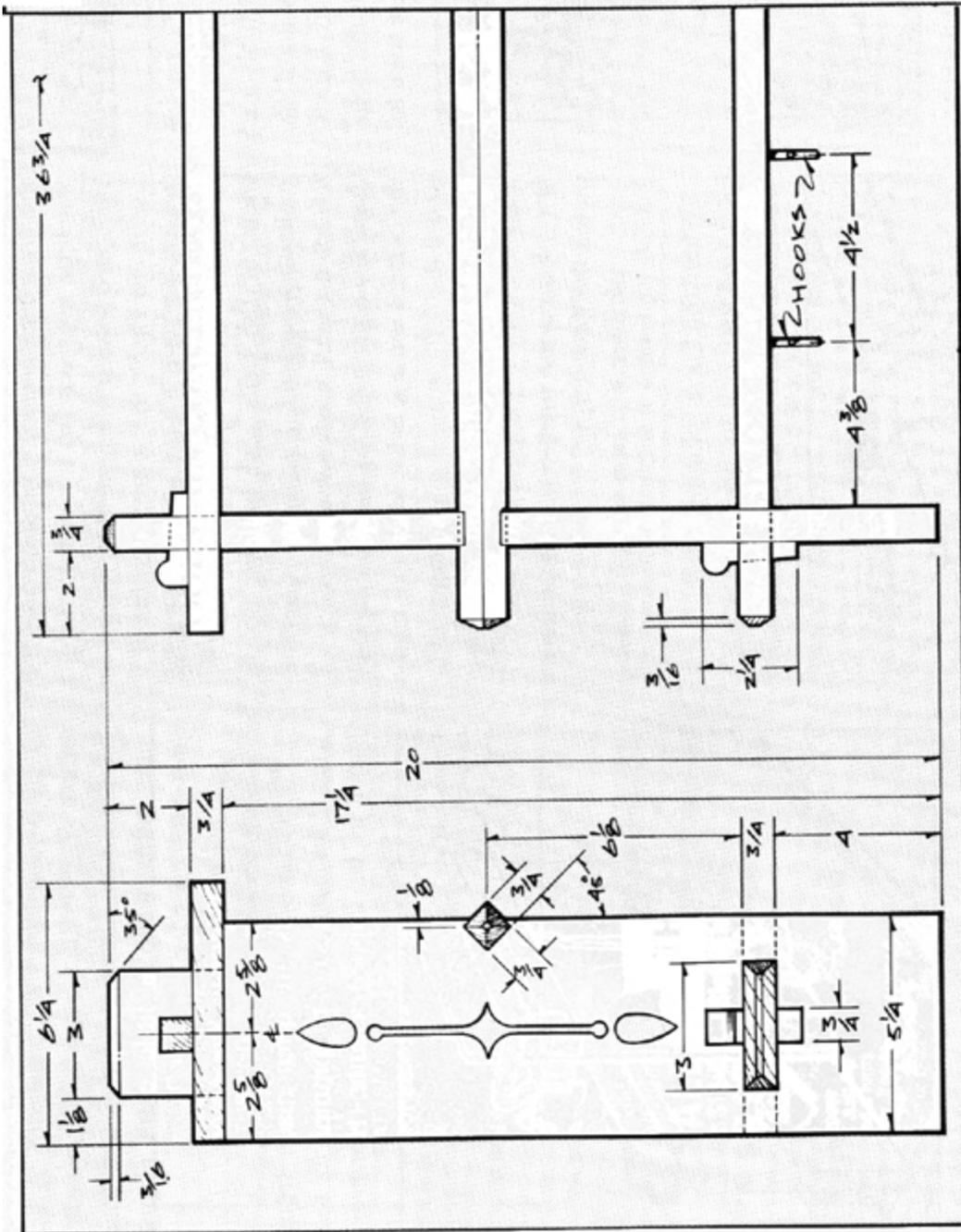
*Our Mission-style oak rack is the perfect place to display those prized plates and cups or collectibles. A 10' length of 3/4" thick by 6-1/4" wide stock will provide all the wood parts.*

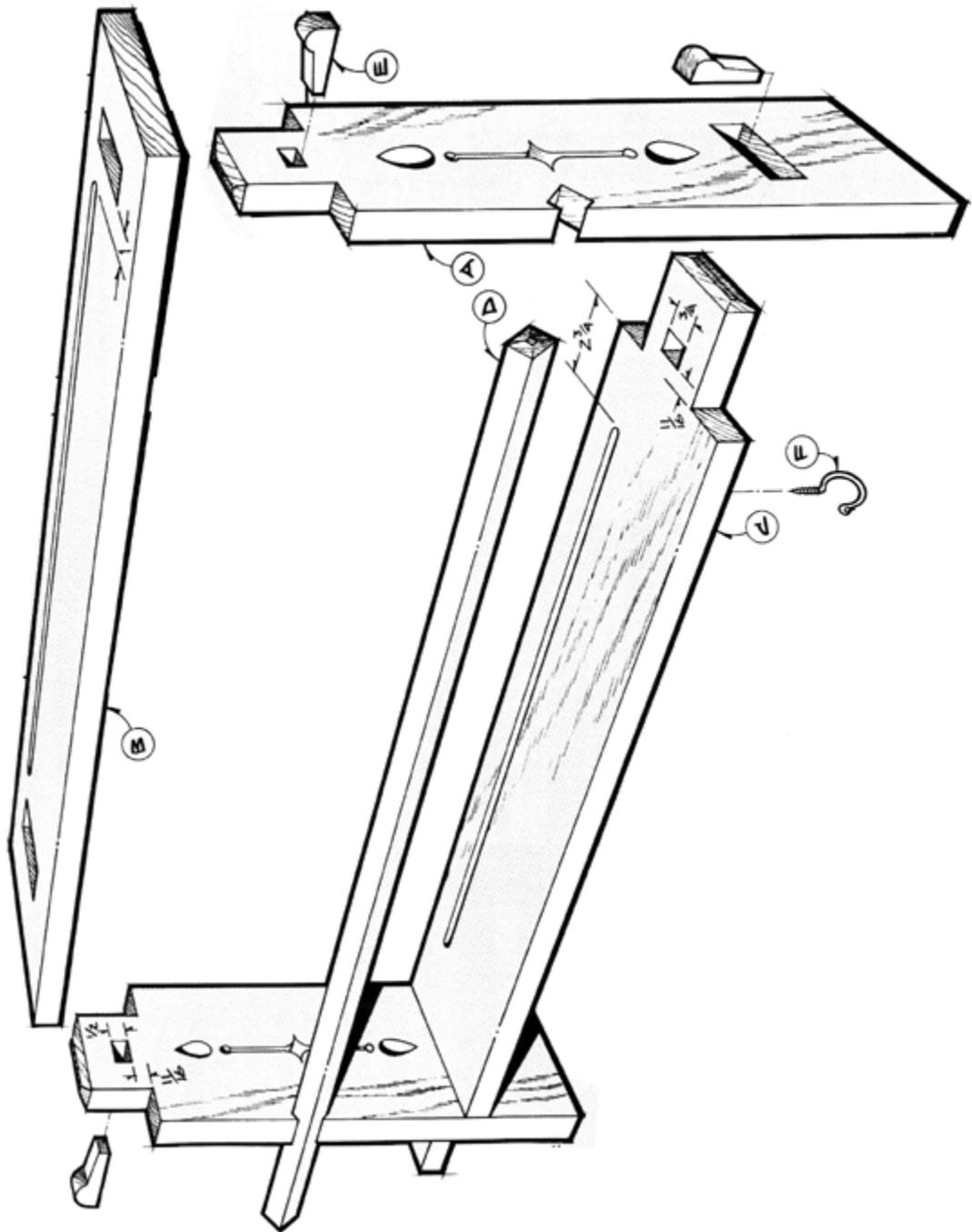
## Oak Plate Rack Materials List

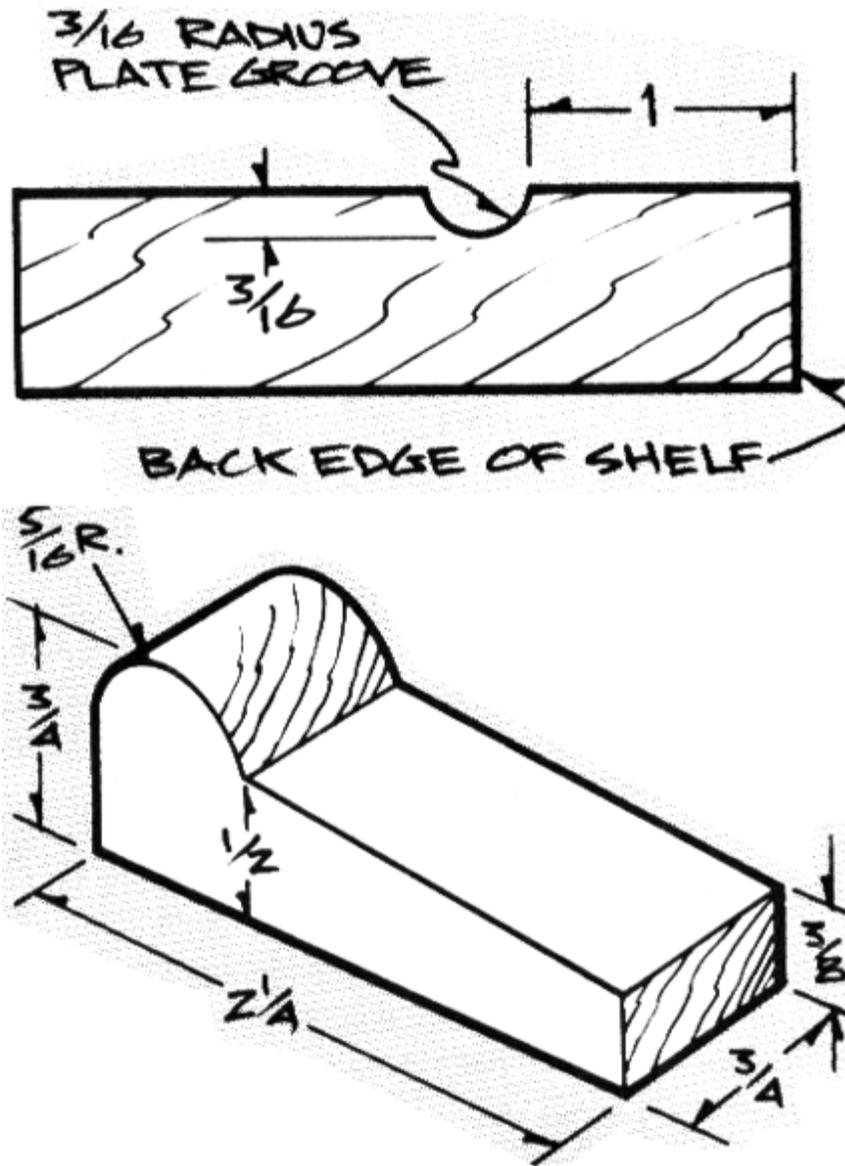
Part	Description	Size	No. Req'd
A	Side	3/4" x 5-1/4" x 20"	2
B	Top Shelf	3/4" x 6-1/4" x 36-3/4"	1
C	Bottom Shelf	3/4" x 5-1/4" x 36-3/4"	1
D	Rail	3/4" x 3/4" x 36-3/4"	1
E	Key	3/4" x 3/4" x 2-1/4"	4
F	Cup Hook	1" dia.	6

# Oak Plate Rack Complete Schematic









## Oak Plate Rack Step-by-Step Instructions

1. Lay out and cut the sides (A) and shelves (B, C) to length and width.
2. Cut the mortises and tenons.
3. Use a drill to remove most of the mortise waste.
4. Use a chisel to square the mortises.
5. **NOTE** that the tenons on the top end of the sides and on the bottom shelf are all 3" wide, so you can use the same table saw setup for the shoulder cuts.

6. Raise the blade to a 1-1/8" height.
7. Use the miter gauge, along with a stopblock to insure accuracy, to make one shoulder cut.
8. Flip the stock and cut the opposite shoulder.
9. Clamp a length of scrap on the tenon side of the cut to serve as a guide for the next step.
10. Use a sharp handsaw to make the ripping cuts that complete the tenon, making the cut just off the line.
11. Use a chisel to clean up the cut.
12. Use a 3/8" diameter core box bit, the router, and an edge guide to make the 3/16" radius plate grooves in the two shelves.
13. Use the full-size pattern to lay out the decorative cutouts in the sides.
14. Use 3/8" diameter drill bit to produce the circles at the ends of the center cutouts.
15. Use a 7/8" diameter bit to cut the round end of the teardrops.
16. Use a scroll or coping saw to make the rest of the cuts.
17. Use files to clean up any roughness.
18. Use a dovetail saw and a chisel to 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.
19. Cut the keys (E) are to size.
20. Shape the keys with rasps and files.
21. Cut the 1/2" by 3/4" key mortises so they are 11/16" from the tenon shoulders. **NOTE: Since the side and shelf stock is 3/4" thick, the 1/16" offset that results will allow the keys to apply pressure as they're inserted.**
22. Chamfer the ends of the tenons and rail.
23. Final sand all parts.
24. Apply an oak stain and lacquer topcoat.
25. Allow the finish to dry.
26. Assemble the shelf.
27. Add hand-forged cup hooks for an authentic look and a large diameter that will easily accept big handles on coffee mugs.
28. Size the shelf to mount on studs that are 16" on-center.
29. Mortise keyhole hangers into the back edge of the sides to mount the shelf securely.

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These plans were originally published in Volume 14, Issue 4 of *The Woodworker's Journal* (July/Aug. 1990, pages 52-53).