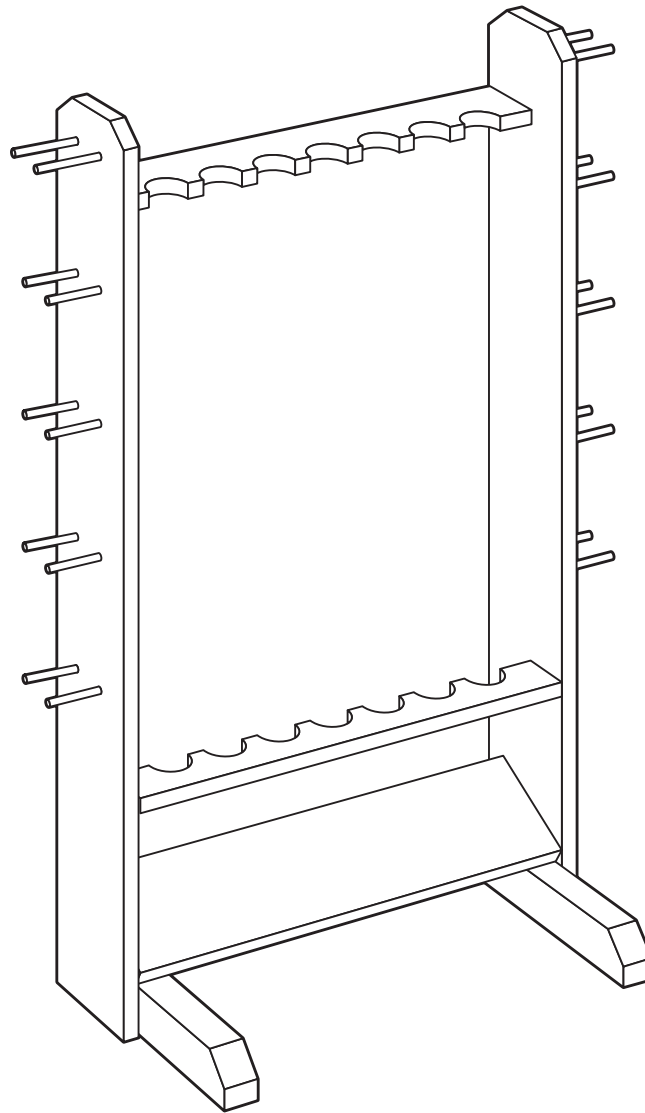


WOODWORKS: BEGINNER PROJECT 2005-2006
FISHING POLE RACK



Storing fishing rods and reels can be quite difficult unless you have a special rack for them. Here's a simple, easy-to-build design for a rack that not only works but will also look great wherever it's kept. Perfect for beginning woodworkers, this project will hone your layout, cutting and drilling skills. And after it's assembled, you'll learn more about applying stains and finishes to enhance the wood's natural beauty and ensure that it's well-protected.

TOOLS REQUIRED

Hand Tools

- Crosscut handsaw or miter saw
- Rip handsaw
- Bar clamps

Power Tools

- Electric drill with 2" hole saw, 3/8" drill bit and countersink drill bit
- Table saw

Miscellaneous

- Tape measure
- Pencil
- Safety glasses
- 120-, 150- and 220-grit sandpaper
- Clean, lint-free cloths
- Respirator
- Gloves for finishing
- Mineral spirits (for oil-based stains and finishes)

- Water-filled metal container with tight-fitting lid (for oil-based stains and finishes)
- Minwax™ Polyurethane Brush or other good quality, natural bristle brush (for oil-based stains and finishes)
- Minwax™ Polycrylic™ Brush or other good quality, synthetic bristle brush (for water-based stains and finishes)
- Carpenter's glue

SHOPPING LIST

Item	Quantity
1 x 6 x 6' oak	2
3/8" x 36" dowel rod	2
#8 x 1-1/2" flat head wood screws	16
3/8" oak plugs	16

CUTTING LIST

Overall Dimensions: 41-1/2"H x 22"W x 5-1/2"D				
Key	Part	Pcs.	Dimensions	Material
A	Sides	2	5-1/2" x 40"	3/4" oak
B1	Upper rod rail	1	3-1/8" x 22"	3/4" oak
B2	Lower rod rail	1	2-1/4" x 22"	3/4" oak
C	Feet	2	1-1/2" x 9-1/2"	1-1/2" oak (glued up from 3/4" stock)
D	Bottom	1	5-1/2" x 22"	3/4" oak
E	Reel pegs	20	3/8" x 3-1/2"	dowel rod

Recommended Wood – Oak

Alternate Wood – Pine (stain grade)

WOOD FINISHING PRODUCTS

Recommended Finish

- Prep: Minwax® Pre-Stain Wood Conditioner (if using soft or porous wood)
- Stain/ Finish: Minwax® Polyshades® Pecan Satin (or your choice of 9 Minwax® Polyshades® colors in satin or gloss)

Alternate Finish

- Prep: Minwax® Water-Based Pre-Stain Wood Conditioner
- Stain: Minwax® Water-Based Wood Stain Deep Ocean (or a Minwax® Water-Based Stain of your choice, available in 6 wood tones, a White Wash Pickling Stain, 60 custom colors, and 8 bold Accents™ colors)
- Finish: Minwax® Polycrylic® Protective Finish Semi-Gloss

BEFORE YOU BEGIN

Good craftsmanship begins and ends with good work habits, so make the following steps part of your routine workshop practice. If you have any doubts or questions about how to proceed with a project, always discuss them with your instructor.

- Carefully and fully review plans and instructions before putting a tool to the project lumber.
- Work sensibly and safely. Wear safety goggles and the appropriate respirator whenever making sawdust or working with thinners or other solvents.
- At the end of every work session, clean up your shop area and put away all portable tools.

CUTTING AND ASSEMBLY PROCEDURE

1. Cut one end of each 1 x 6 square.
2. Measuring from the squared-off end, cut the sides (A) to length and cut the 45-degree bevels on the top corners.
3. Lay out and drill for the reel pegs (E). Use a stop collar or piece of masking tape as a depth gauge on the drill bit to prevent the holes from going all the way through the sides.
4. Cut two pieces of 1x6 to length for the bottom (D) and the two rod rails (B1 and B2), which will be ripped from one board. Cut these parts carefully to ensure that they are exactly the same length.
5. On one of the 22" boards, lay out and drill the holes in the rod rail (Fig. 2). After the holes are drilled, rip the rod rail down the centerline of the holes to produce the upper and lower rod holders.
6. Make the feet (C) by gluing together two pieces of 3/4" material. Cut the 45-degree bevel on the front of the feet.
7. Pre-drill the screw holes through the sides. Thoroughly sand all of the pieces, and use hand sanding to put a slight chamfer on one end of the reel pegs.
8. Screw and glue the feet to the inside faces of the sides, keeping the square end of the foot even with the back edge of the side.
9. Assemble the rack by standing it upright, with the front edge of the bottom piece resting on the feet. Use a bar clamp to securely hold the parts together. Then position and clamp the upper rail. Do not allow the bar clamp to cover the screw holes. Drill into the upper rail and drive the screws through, holding it in place.
10. Then, position the lower rod rail and drill, and screw it in place.
11. Loosen the lower bar clamp and position it to allow drilling and screwing the bottom in place.
12. Finally, glue and tap in the plugs and reel pegs, keeping the chamfered ends of the reel pegs facing out. Be sure to carefully remove excess glue before the pieces dry. Sand the plugs flush with the surface of the sides.

STAINING AND FINISHING

Woodworker's Tip: *Though you may be tempted to cut short your sanding, preparation and application time, don't do it. These tasks are very important steps in obtaining a high-quality finish. Remember, it is the finish, just as much as the fit and smoothness of the parts that will have great bearing on how people judge your craftsmanship. To ensure an excellent result, follow the steps listed in this section and also the instructions the finish manufacturer puts on its products.*

FINISHING TIPS

- Test the stains and finishes you are planning to use on scraps of wood. On the back of the scrap, mark the stain/finish combination and the type of wood. Allow all samples to dry thoroughly before making your final finish selection. Save your samples for quick reference on future projects.
- All stains and finishes must be allowed to dry thoroughly between coats. Remember that drying times can vary due to humidity and other climatic conditions.
- If you have some leftover stain or finish, wipe the can rim so that stain or finish in the rim won't dry out and prevent the lid from forming a tight seal.
- Brushes used for water-based products, such as Minwax® Water-Based Wood Stains or Minwax® Polycrylic® Protective Finish, should be cleaned with soap and water; oil-based finishes must be cleaned with mineral spirits.

13. Sand all pieces with 120-grit sandpaper, then move up to 220-grit to complete the pre-finish smoothing. Use an orbital sander and with-the-grain sanding strokes to remove any marks or scratches. Dust off the piece and wipe it carefully with a clean, lint-free cloth lightly dampened with water.

Recommended Finish

14. Apply Minwax® Polyshades® following the directions on the can. Use a good quality, natural bristle brush suitable for use with polyurethane. Stir the can contents thoroughly before starting and periodically repeat stirring during your work session. Allow the first coat to dry overnight.

15. The next day, sand all surfaces lightly with 220-grit sandpaper or very fine (000) steel wool using with-the-grain strokes. Wipe all surfaces with a cloth dampened with mineral spirits. Apply a second coat of Polyshades®. To achieve a deeper color, you may apply a third coat after 6 hours, repeating the application directions. Allow the project to cure for several days before using it.

Woodworker's Tip: *If you achieve the desired color on the first or second coats of Polyshades®, apply a clear coat of Minwax® Fast-Drying Polyurethane or Minwax® Wipe-On Poly for added protection.*

Alternate Finish

Before applying Minwax® Water-Based Wood Stain to a hardwood or softwood, apply Minwax® Water-Based Pre-Stain Wood Conditioner following the directions on the can. Applying it will help to ensure even absorption of stain and prevent blotchiness that can occur with some woods. After 1 to 5 minutes, wipe off all excess conditioner using a clean, soft cloth. Wait 15 to 30 minutes then use 220-grit or finer sandpaper to sand off any “whiskers” raised by the conditioner. Proceed to the staining within 2 hours.

16. Do the staining in two steps, starting on the interior surfaces and then do to the exterior surfaces. Apply the Minwax® Water-Based Wood Stain you've chosen using either a nylon/polyester brush or a cloth. Allow stain to penetrate no longer than 3 minutes. While stain is still wet, wipe off all excess with a clean cloth that's been lightly dampened with stain. Allow the piece to dry for 2 hours before applying a second coat, if desired. Allow the piece to dry overnight before applying the protective clear finish.

Woodworker's Tip: *Minwax® Water-Based Wood Stain is available in 6 wood tones, a White Wash Pickling Stain, 60 custom-mixed colors, and 8 bold Accents™ colors. This means that you are not limited to just traditional wood colors (pine, oak, walnut, etc.). Instead, you can actually pick and apply a color to complement the décor of the room in which the fishing pole rack will be placed. For this reason, make sure you look over all of the Minwax® color charts or go to minwax.com before making your final selection.*

17. After allowing the piece to dry overnight, apply Minwax® Polycrylic® Protective Finish following the directions on the can. Stir the can contents thoroughly before starting and periodically repeat the stirring during your work session.

18. Working a small area at a time to maintain a wet edge, apply the first coat. Work quickly and make the final strokes in each newly finished section using with-the-grain brushstrokes.

19. Allow the finish to dry a minimum of 2 hours. Then sand lightly with 220-grit or finer sandpaper wrapped around a soft backup block. Thoroughly wipe all surfaces with a cloth lightly dampened with water.

20. Repeat steps 18 and 19 to apply the second and final coat.

PRODUCT SAFETY

For your safety and the safety of those you work with, always read the safety warnings, which manufacturers print on their labels, and follow them to the letter. Typical safety advice and instructions will contain information such as the following:

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

When using oil-based wood finishing products:

CAUTIONS: CONTAINS ALIPHATIC HYDROCARBONS. Contents are COMBUSTIBLE. Keep away from heat and open flame. **VAPOR HARMFUL.** Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately.

NOTICE: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.**

When using water-based wood finishing products:

CAUTIONS: Use Only With Adequate Ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved), or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, get medical attention immediately.

WARNING: Contains Alkyl propanols, ethylene glycol, n-methyl pyrrolidone. **VAPOR HARMFUL.** Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved), or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

DO NOT TAKE INTERNALLY.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately.

DELAYED EFFECTS FROM LONG-TERM OVEREXPOSURE.

Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

KEEP OUT OF REACH OF CHILDREN.

SAFE DISPOSAL OF RAGS AND WASTE.

DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

FIG 1. FISHING POLE RACK DETAIL

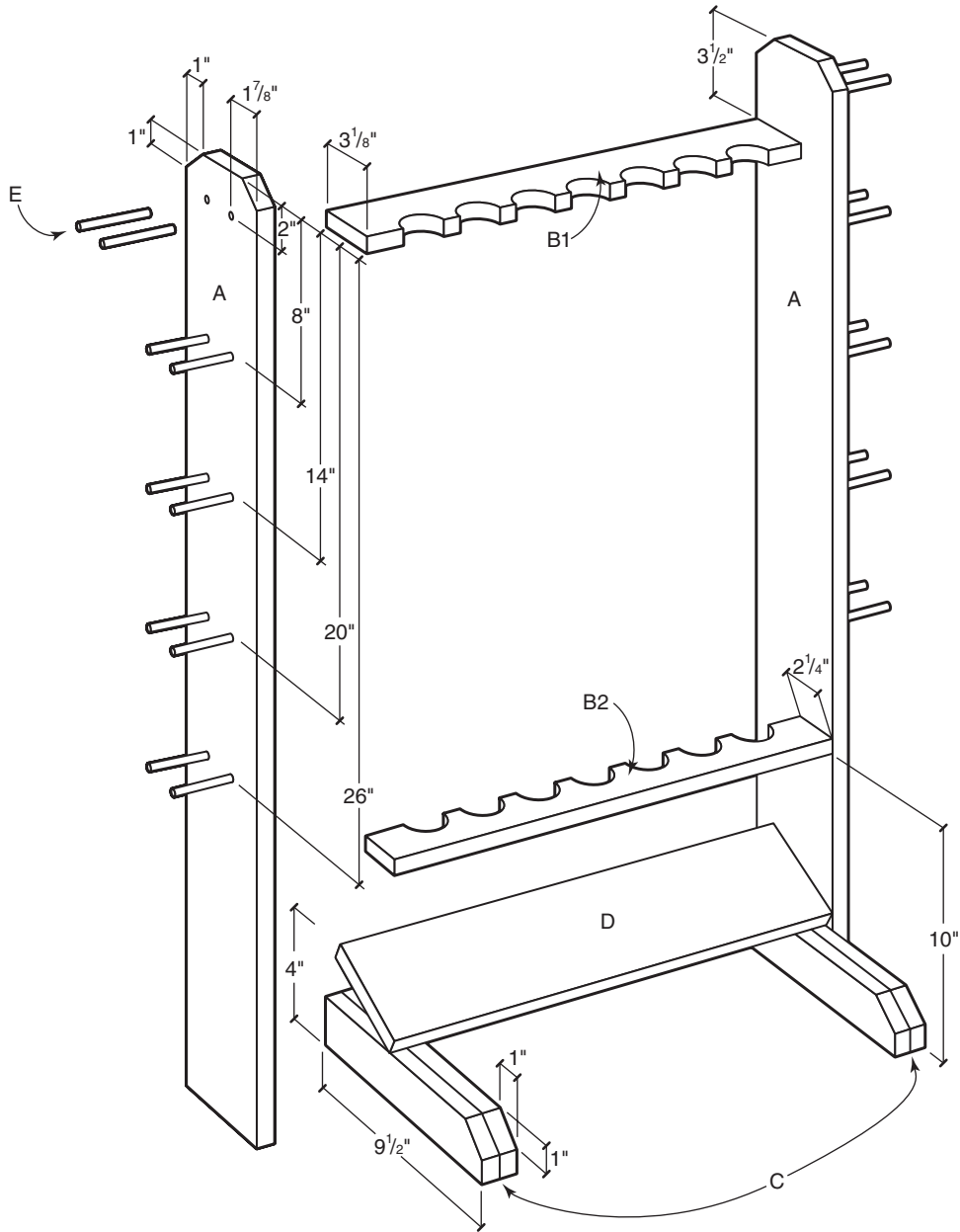


FIG 2. DRILL THE HOLES IN THE ROD RAIL

