

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.

Garden Arbor



Published in *Woodworker's Journal* March/April 1993



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.

Copyright *Woodworker's Journal* © 2011
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

WJC157



Garden Arbor



Gardening is the number one hobby in the United States (yes, even more folks garden than do woodworking), and if you or someone in your house does gardening, chances are you've noticed the recent popularity of arbors. What's an arbor? Well, as we discovered, it can take many forms. We've seen arbors that serve as entryways to a garden path, seats within the garden, or just as a trellis for climbing vines like ivy or honeysuckle.

But you needn't be a gardener or even have a garden to enjoy an arbor. It makes a perfect seat in a quiet corner of the lawn, or it can be an elegant entrance for a walkway. Wherever you decide to place it, an arbor is a distinctive addition to your landscape, no doubt the reason we've seen so many of these in the various gardening catalogs that pass our way.

The Basic Concept

We've tried to design our arbor to be as versatile as possible. Although we show it with a seat, and a trellis formed by a series of shop-built latticework panels, you can build the arbor in any number of configurations. You can even substitute store-bought lattice (typically sold in 4 ft. by 8 ft. panels, which you then cut to size) if you'd rather not spend the time crafting the Chippendale-style lattice panels that we show.

If you decide to use the arbor as an entryway, and opt for the store-bought lattice, keep in mind that this lattice is mainly decorative, and has little strength. Since on our arbor, the lattice panels also serve as the supports joining the front and back pairs of legs, you'll need to add a few support stretchers between the legs. You'll also need to run a molding around the lattice, as a way to hold it in place.

The framework of the arbor is comprised of just three different parts, the posts (A), stretchers (B) and ends (C). The four posts are pressure-treated 4 by 4's; the stretchers and ends, like all the remaining parts, are redwood. We might add here that cedar is an acceptable substitute for the redwood.

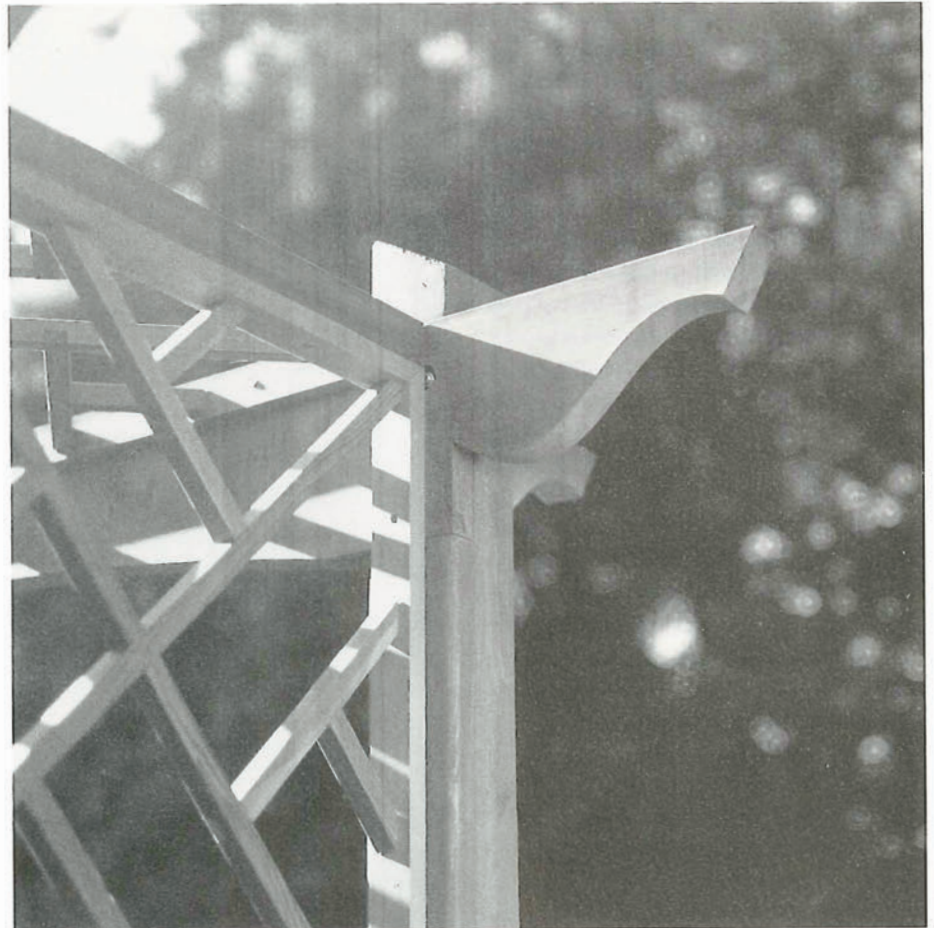
Before you start, consider how the arbor will be used. Although we just rested our arbor on the ground (leveling

pose of this is because the notches in the interlocking parts help to index these parts perfectly at assembly. You could also just notch out the posts to the full 1½ in. notch depth, which will cut down on some of the work required.

Once your notches are cut, lay out and cut the profile on the stretchers and ends. Using the grid pattern, make a template out of hardboard or plywood, then use the template to trace the profile on the

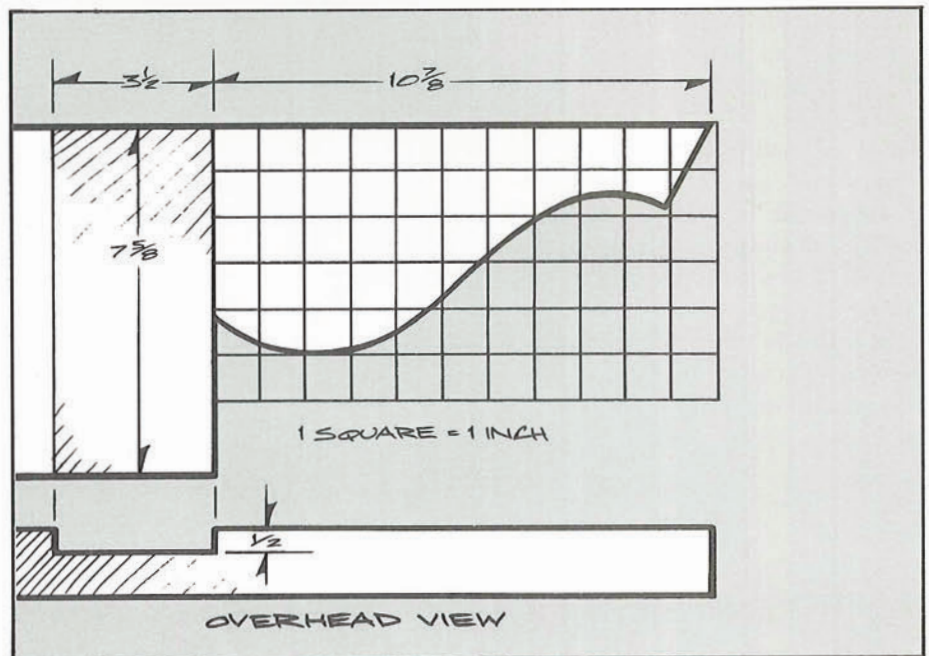
Bill of Materials (all dimensions actual)			
Part	Description	Size	No. Req'd.
Frame			
A	Post	3½ x 3½ x 90½	4
B	Stretcher	1½ x 7⅝ x 71¾	2
C	End	1½ x 7⅝ x 12¾	4
Lattice			
D	Frame	¾ x 1½ x 23	32
E	Long Strip	¾ x ¾ x 32½	16
F	Medium Strip	¾ x ¾ x 10⅝*	32
G	Short Strip	¾ x ¾ x 5¼*	32
H	Filler	1½ x 1½ x 23	2
Seat			
I	Support	1½ x 3½ x 30	2
J	Frame End/Center	1½ x 2⅜ x 25½	3
K	Frame Front/Back	1½ x 2⅜ x 43	2
L	Seat Board	1⅝ x 7¼ x 43	4

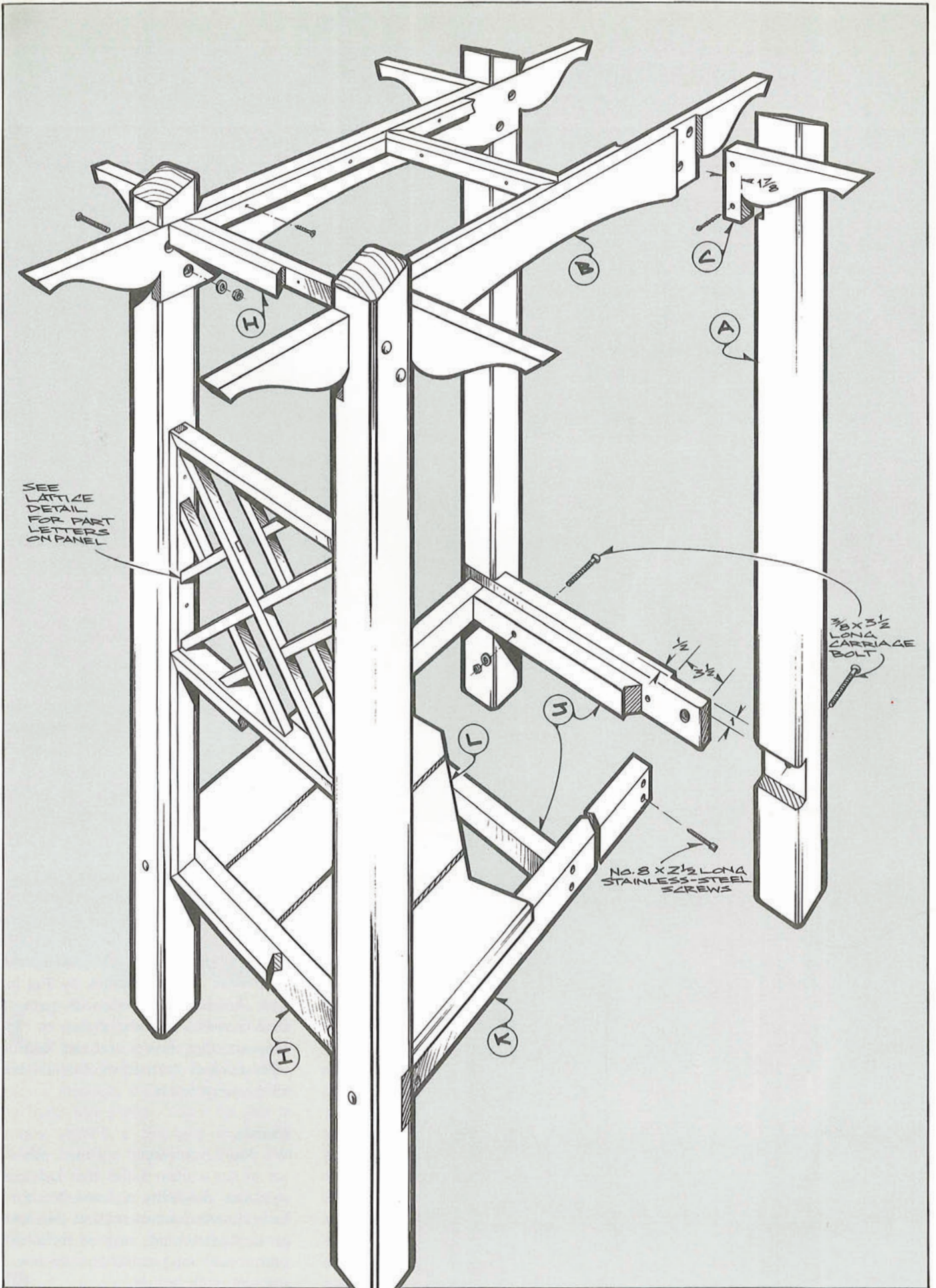
* Length dimensions are to the nearest ⅛ in. The actual length of the medium strip is a little under 10⅝ in., while the actual length of the short strip is a hair over 5¼ in.



stretchers and ends. Cut out with a band saw and sand smooth. To lay out the broad curve in the bottom edge of the stretchers, first scribe a centerline bisecting the stretcher. Tack a nail on the centerline, 5⅛ in. down from the top edge, then tick off two marks along the bottom edge of the stretcher, each mark 20 in. from the centerline. Now, bend a thin strip of wood around the nail so that it touches your two scribed marks, and use a pencil to mark the curve. Once you've cut and sanded the curve in one stretcher, use it as a template to mark the curve in the remaining stretcher.

With the frame parts all cut, now assemble the frame. We used 3½ in. long carriage bolts to mount the seat supports and stretchers to the posts, countersinking for the washers and nuts. The ends are screwed in place with no. 8 by 2½ in. long stainless steel screws, which are also countersunk. Pre-drill for all assembly bolts and screws, lest you split the wood.

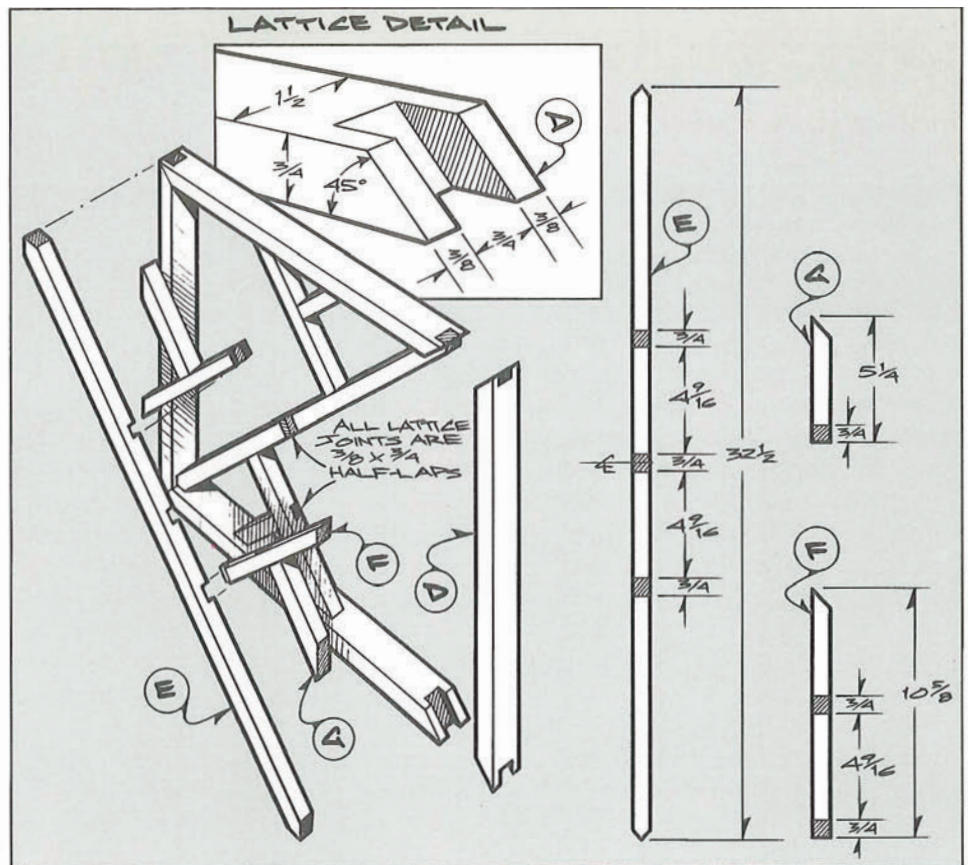
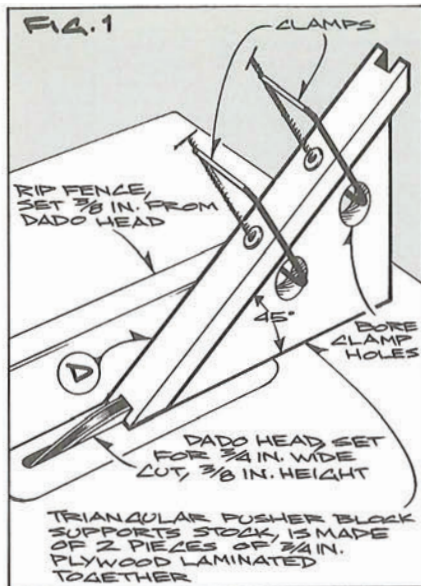




SEE LATTICE DETAIL FOR PART LETTERS ON PANEL

NO. 8 X 2 1/2 LONG STAINLESS-STEEL SCREWS

3/8 X 3/4 X 3/4 CARriage BOLT



The Lattice

There are eight identical lattice panels on our arbor. The Chippendale style panels aren't hard to build, once you are set up. All the work is done on the table saw. As the Bill of Materials shows, the lattice consists of the frame parts (D), long strips (E), medium strips (F) and short strips (G). A pair of filler strips (H) fills out the space at the corner where the top and side lattice panels meet.

To make the lattice, first rip sufficient stock for the various size parts. You'll need only two sizes for the panels themselves—the $\frac{3}{4}$ in. by $1\frac{1}{2}$ in. frame stock, and the $\frac{3}{4}$ in. square stock from which the strips are all cut. As the Lattice Detail shows, the lattice frame is constructed so the two long strips, which half-lap at the center of the panel, extend through the frame corners. You'll need to use a triangular push block and a pair of clamps (see Fig. 1) to support the frame stock as you cut the notches in the frame ends. Your dado head should be set to a $\frac{3}{4}$ in. width and a $\frac{3}{8}$ in. depth of cut for this operation.

Once your frame parts are cut, it's just a matter of cutting the various strips to length, cutting the 45-degree miters on the ends, and cutting the various half-laps by which the strips are joined. Note that there's a double miter on the ends of the long strips, since they extend through the frame at the corners. Of course, the easiest way to cut the strips and make the half-laps is to set up stops on the saw table and cut all like parts with the same setting. There are four identical short strips for each panel, and

four identical medium strips. However the two long strips on each lattice panel are not quite identical, since on one long strip the three half-laps are all on the same side, while on the remaining long strip the center half-lap is on the opposite side of the two other half-laps.

Although we give you specific lengths and notch locations for the lattice strips (see Lattice Detail), any number of factors—such as a slight variation in the thickness of your lattice strips—can affect these dimensions. Your best bet is to make a sample lattice panel first, which will enable you to fine-tune all your table saw setups—and get them just right—before you actually go to work cutting the lattice parts. Whatever adjustments you make in the lattice, keep in mind that the one thing you don't want to change is the overall 23 in. by 23 in. square size of the lattice panels. It's important for the panels to be sized properly if everything is to fit together as intended.

The lattice assembly is a simple matter. We used brass brads and waterproof glue at all joints. The brads help to hold the parts in position as the glue dries. A simple shop-built framing jig (just several cleats nailed to a section of plywood) will come in handy for squaring up and assembling the lattice panels.

The purpose of the jig is to hold everything square and keep it from moving around as you do the assembly.

Once your eight lattice panels are complete, you can mount them to the frame. Using stainless steel screws, mount the six side panels directly to the posts. The two top panels are screwed to the stretchers, and the filler strips fill in the space where the top and side panels meet.

The Seat

In addition to the seat supports, the seat consists of the frame ends and center (J), the frame front and back (K) and the seat boards (L). The frame parts are all $1\frac{1}{2}$ in. thick by $2\frac{3}{8}$ in. wide stock; the boards are all $1\frac{1}{8}$ in. thick by $7\frac{1}{4}$ in. wide. Assemble the frame with stainless steel screws, bolt the frame to the supports, then mount the seat boards with stainless steel screws. Countersink all the screw heads.

Finish

We don't recommend a finish. We've yet to see a clear finish that has true paint-like durability on outdoor furniture. However, arbors such as this look great painted white, or just about any other color—or combination thereof—that suits your fancy.

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