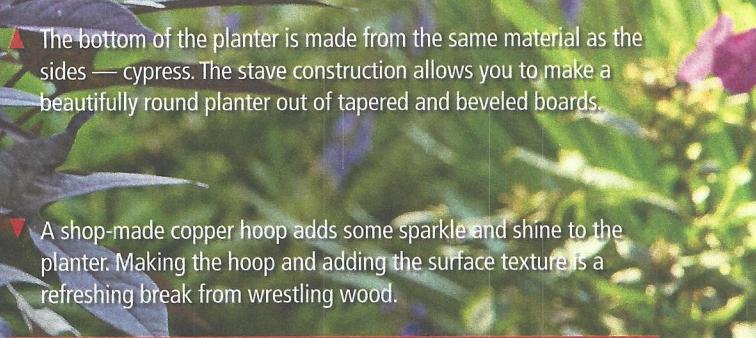


# Patio Planter

This outdoor project will throw you some fun curves in the shop. Once the planter is complete, it's the perfect choice for showing off your gardening prowess.



▲ The bottom of the planter is made from the same material as the sides — cypress. The stave construction allows you to make a beautifully round planter out of tapered and beveled boards.



▼ A shop-made copper hoop adds some sparkle and shine to the planter. Making the hoop and adding the surface texture is a refreshing break from wrestling wood.

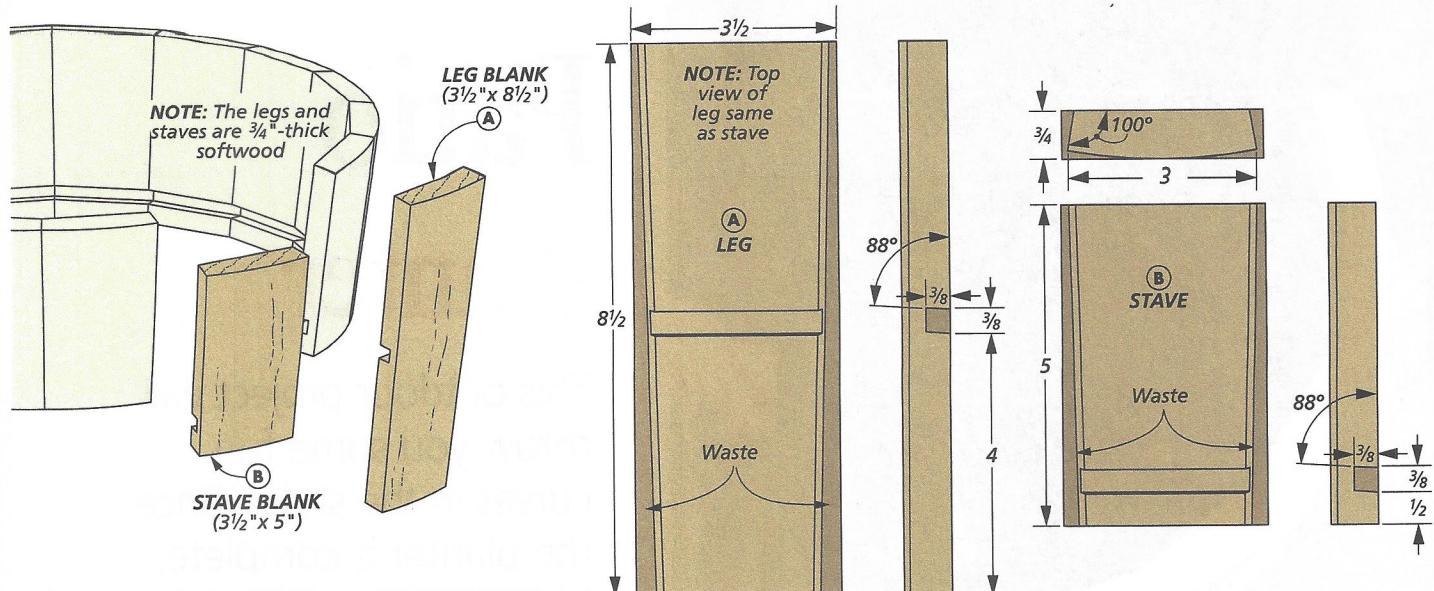


**I**t seems that whenever you want to make a replica of an existing piece, even something as simple as a barrel, there can be lots of upfront work to do. Most of that work has to do with measuring parts exactly and keeping track of how they interact. But that's just not the case with this little gem.

This planter is made out of cypress, and has the look of a barrel that's been salvaged from a previous life and resurrected for a new duty — holding floral decorations in the corner of your patio. Which is a perfect use for cypress. Cypress is easy to work and is a durable option for fences, patio furniture, and birdhouses. You know, outside stuff.

If all those angles you see in the upper inset photo have you scratching your head, not to worry. There's a jig that makes the process as smooth as silk. In fact, other than at the start, you'll find that you're not going to need measuring tapes or rulers hardly at all with this project. A lot of what happens here falls in line with the "build-to-fit" philosophy. You'll make the barrel parts and then dry assemble them to find the size of the bottom. Then, use the completed planter to size the hoop.

The copper hoop on the planter is an homage to the steel "quarter" hoop you would see on an oak whisky barrel. Our version is purely cosmetic. It takes a little work to make, position, and fit the hoop, but it adds a lot to the look of the planter and is a fun side trip from making wood chips in your shop.



## The LEGS & STAVES

As the drawings above show, the body of the barrel consists of two parts — the leg and the stave. The leg is the longer of the two and it does what legs do — lift the planter off the ground and provide ventilation for the underside. The shorter staves make up the sides of the planter. There are five staves between each leg to keep the barrel balanced.

**OVERSIZED BLANKS.** The details above show that the parts are cut to their final length, but left wide for the moment. Also, the top and bottoms of the pieces

are left square. You could say leaving them so adds to the rustic charm of the planter, instead of doing the work of beveling the ends.

**DADO FIRST.** The drawing below shows the next step. To hold the bottom in place, you need a dado in all the pieces. You'll need to account for the tilt of the barrel's sides when cutting the dado. Detail 'a' shows how to set the dado blade before making the cuts.

To make sure the staves and legs align at the top, cut a test piece after resetting the fence.

When you're satisfied that they match, finish cutting the dadoes in the remaining pieces.

### CREATING THE JIG

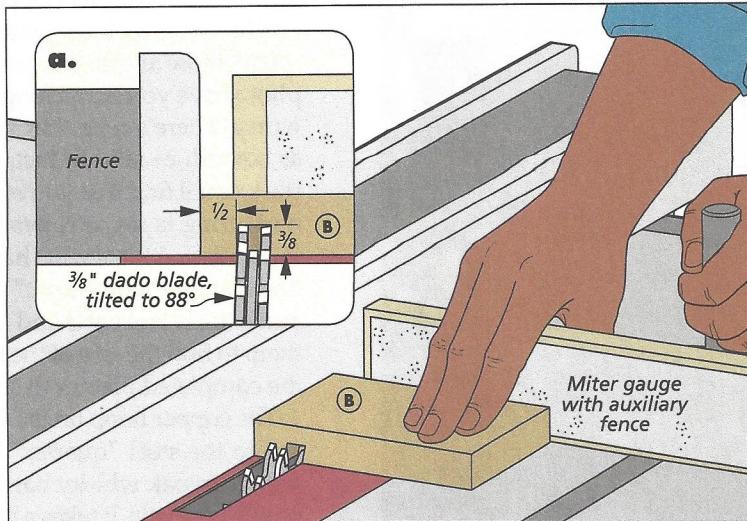
The jig you see on the next page is designed to cut the taper and the bevel on both the legs and the staves. You're going to use both sides of the jig to shape the parts. First, you need to make the base.

To begin, set the blade on your table saw to 80°. Figure 1 on the next page shows this step. Now use your rip fence to cut the base width (about 2 1/2 times the width of the leg). In the upper corner, mark this as side 1.

**LAST OF THE LAYOUT.** At the beginning of this article, I mentioned that you won't be using your measuring tape or ruler a lot on this project, you're coming up on that milestone now. Figure 2 shows the leg blank marked up and ready for the jig.

The next two figures show you how to locate the stops on the jig using the leg blank you just marked up. It starts with Figure 3, you're setting up the jig stops to cut the left side of the leg. When the glue on the stops set, trim that side of the workpiece.

Now flip the jig to side 2. Spin the workpiece 180° and set the stops for the right side of the leg



**Dado for Bottom.** A dado blade in your table saw and an auxiliary fence attached to your miter gauge lets you cut the dadoes in the leg and stave blanks. Then you can move on to tapering the parts.

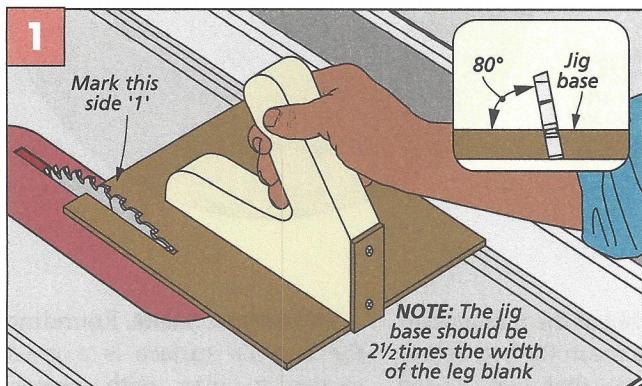
(Figure 4). Then, at the table saw, make the second pass, defining the right side of the leg.

**THE STAVES.** Although the jig was created using the legs, it works

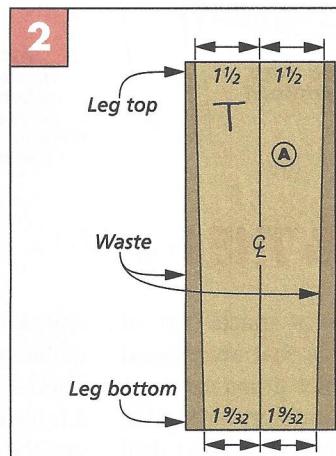
just fine for the shorter staves. It's a good idea to mark the tops of the staves the same way you did the legs, just to keep track of the progression.

I cut all the left sides of the staves (Figure 5) before spinning the jig and staves (Figure 6). Now it's back to the bench to make the planter bottom.

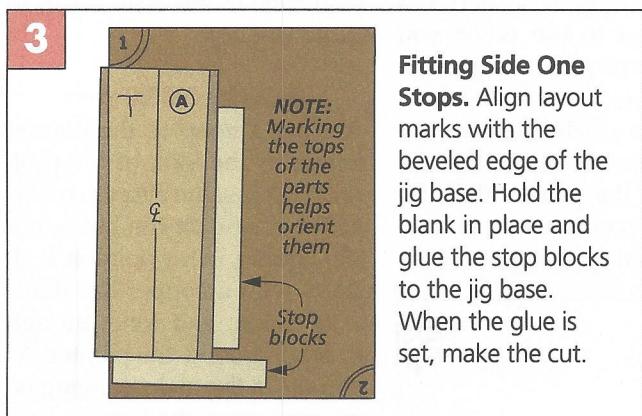
## MAKING & USING THE JIG



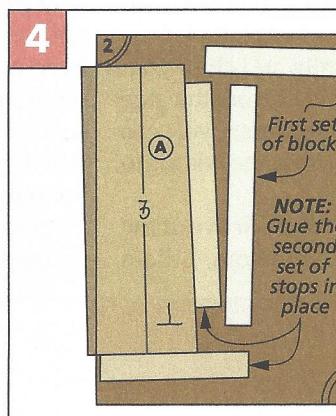
**Size the Base.** Start with a piece of hardboard that is longer than the leg blank and more than twice the width of the blank. Set the saw blade at 80° and rip the first edge.



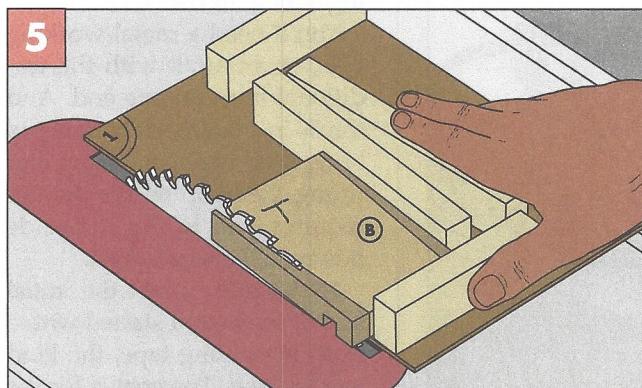
**Layout the Leg Blank.** On an extra-wide leg blank, draw a centerline. Measure and mark the width of the top and bottom of the leg. To layout the outside edges, draw a line between the two marks.



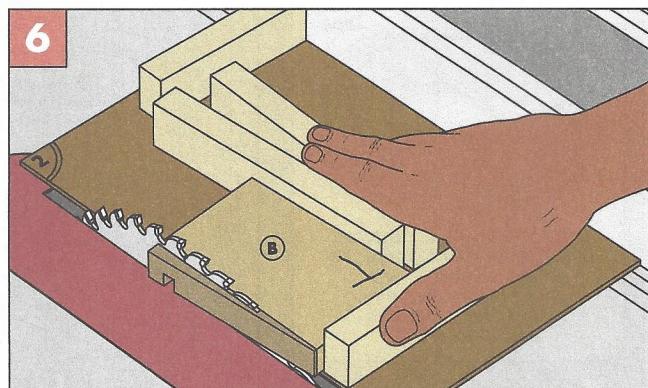
**Fitting Side One Stops.** Align layout marks with the beveled edge of the jig base. Hold the blank in place and glue the stop blocks to the jig base. When the glue is set, make the cut.



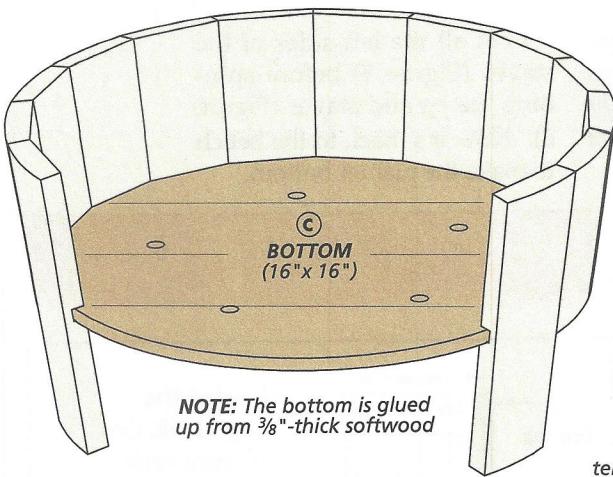
**Fitting Side Two Stops.** Spin the jig and the workpiece 180° and align the other layout marks with the edge. Position the stop blocks against the leg and glue them in place. Then make the second cut.



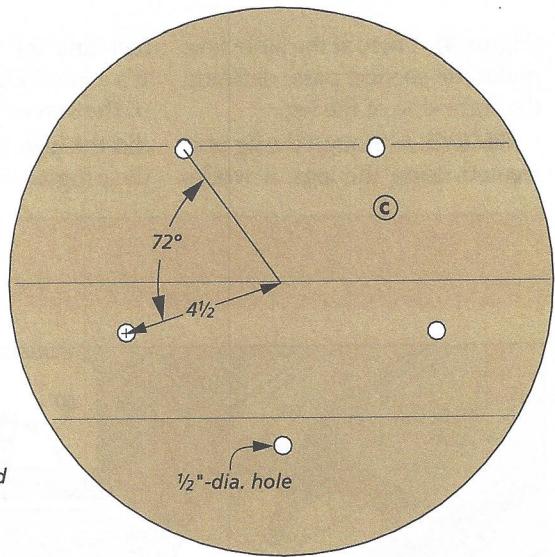
**One Jig for Both Pieces.** After cutting the tapered and beveled sides of the legs, repeat the process for the staves. Cut all of the left sides first.



**Spin & Repeat.** The routine for the staves is the same as the legs. Turn the jig and the stave 180° to taper and bevel the right side of the stave.



**NOTE:** Actual diameter will be determined after parts are cut and temporarily assembled (see box below)



## The BOTTOM & THE HOOP

The bottom is made up of cypress boards that are planed to thickness, then glued up. After creating the round profile to fit in the dadoes, you'll need to drill some weep holes for drainage.

**GLUE UP.** Thin material can buckle easily when clamped up. So, clamp lightly and check that the bottom is flat before the glue sets. If problems arise, you can clamp cauls across the boards to hold them flat.

**SHAPE THE BOTTOM.** To arrive at the final size of the bottom, I did a

dry assembly of the planter barrel like you see in the box below. Then, to create that shape, I used a trammel and my router to cut out the bottom. Note the foam board that protects the bench.

**GO TIME.** A slow-set waterproof glue is best to use when you have a lot of parts to glue up. Eighteen pieces mean 36 edges, so this job easily qualifies for that. One consolation is that the bottom of the planter floats in its groove so there's no glue to worry about applying there.

**SMOOTHING THE PLANTER.** Rounding the barrel's surface is a great excuse to play with planes, spokeshaves, and maybe a scraper or two — goldbricking never felt so good. Just take your time in the early stages to avoid tear out.

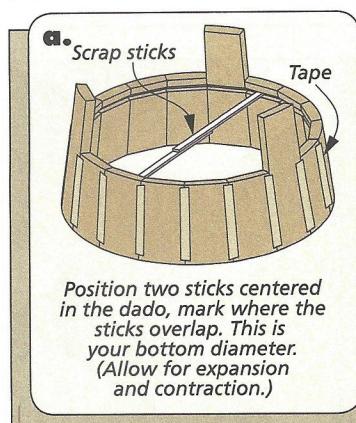
### MAKING A COPPER HOOP

Adding a hoop to the planter enhances the look of the project. It takes some effort to make, position, and fit the hoop, but it's worth it, in my opinion. It all starts with a copper bar that's a  $\frac{1}{2}$ " wide, and long enough to wrap around the planter. As you see in the main drawing on the next page, the hoop is held together with rivets.

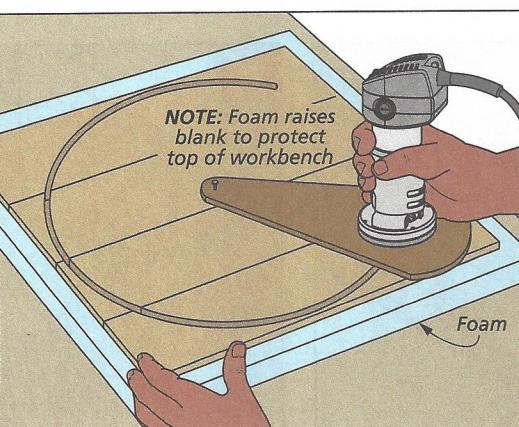
You'll need a metal-working vise, or an anvil with the traditional horn on one end. And throw in a ball-peen hammer to bring it all together. Sizing and fitting the hoop on the planter requires you to flip it upside down on the workbench.

**SIZE THE HOOP.** To get the initial size of the hoop I started with a cloth measuring tape, the kind a tailor uses. The goal is for the hoop to land in the center of staves on the planter, so mark the necessary offset for the top of the hoop in several locations.

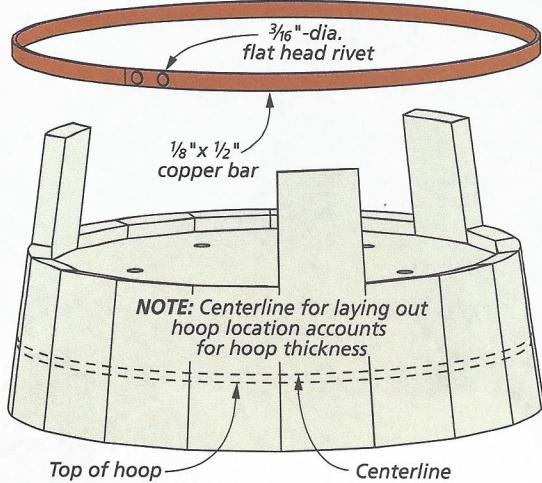
## MAKE THE BOTTOM



**Position two sticks centered in the dado, mark where the sticks overlap. This is your bottom diameter. (Allow for expansion and contraction.)**



**Size It Up.** First, lay out all the parts edge-to-edge and tape joints together on the outside. Roll it up and tape the last joint, then measure inside the dado as shown to determine the bottom diameter (detail 'a'). Then rout the bottom to size.



When you measure with the cloth tape, add  $1\frac{3}{8}$ " to the overall length for the scarf joint that will tie the hoop together.

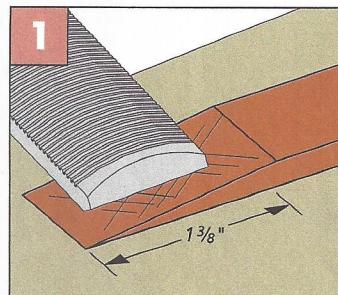
**DRY FIT THE HOOP.** To prepare for the dry fit, transfer the measurement to the strip of copper and cut it to length. If you're so inclined, you can shape a piece of scrap plywood to the needed circumference of the hoop. It doesn't have to be exact, just close enough that it prevents the bar from kinking while you're forming the initial shape.

**COMPLETE THE HOOP.** The steps shown in Figures 1 through 3 above will guide you through

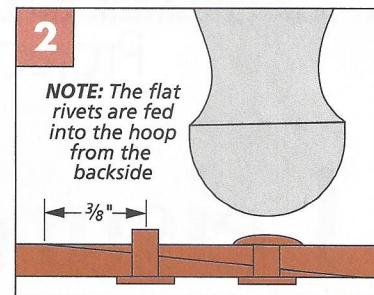
successfully completing the hoop. When that task is done, it's time to attach the hoop to the planter.

**TACKLING A FUSSY FIT.** To start, position the planter upside-down on the bench and try to tap the ring in place evenly on the planter. Use a wood block to avoid marring the edge of the hoop.

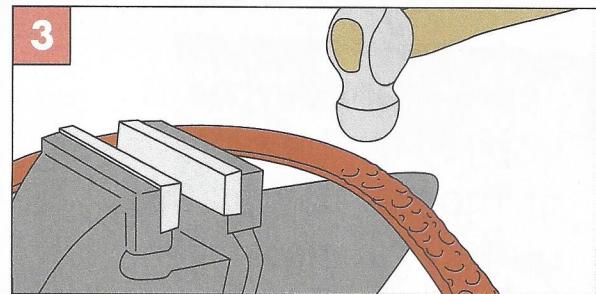
In theory, the hoop should "bite" into the staves and legs, holding it in place. If that works, great, you live a charmed shop life. Then you can epoxy the hoop in place. The reality is that the hoop will want to pop free opposite of where you're working. So, here's another way to skin this cat. First, place the planter on a couple of two-byss that are set on a pair of saw horses. Now you can hold



**Scarf Joint.** File mating tapers on the ends of the hoop. It's good to leave them rough.



**Rivets.** Use your ball-peen hammer to swell the rivets, locking the hoop ends together.

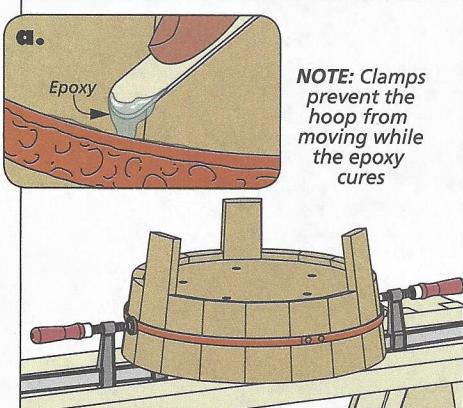


**Peen the Hoop.** To add character to the hoop, gently peen the outside surface and top edge of the copper with your ball-peen hammer.

the hoop in place with clamps. The box below to the left shows this setup. To ensure the hoop stays put, I epoxied it to the barrel in multiple places. Let the epoxy completely set before moving on to the final steps.

All that's left to do is prepare the planter for outdoor life. *Penofin* is applied all over the planter. When it was dry, I painted the inside walls and bottom with black oil paint. When that's dry, pull out your green thumb and fill your new planter with your favorite flora. **W**

## ATTACH THE HOOP



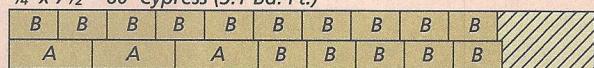
**NOTE:** Clamps prevent the hoop from moving while the epoxy cures

**Get a Grip.** Flip the planter upside-down and place on two two-byss. Clamp the hoop in place while epoxy sets.

## Materials, Supplies & Cutting Diagram

- |               |  |  |
|---------------|--|--|
| A Legs (3)    | $3/4 \times 3\frac{1}{2} - 8\frac{1}{2}$ | • (2) $3/16$ -dia. Copper Flat Head Rivets       |
| B Staves (15) | $3/4 \times 3\frac{1}{2} - 5$            | • (1) $1/8 \times 1\frac{1}{2}$ - 60" Copper Bar |
| C Bottom (1)  | $3/8 \times 16 - 16$ rgh.                |  |

$3/4 \times 7\frac{1}{2} - 60$ " Cypress (3.1 Bd. Ft.)



$3/4 \times 4\frac{1}{2} - 72$ " Cypress (2.3 Bd. Ft.)

