



Planter Box & Trellis



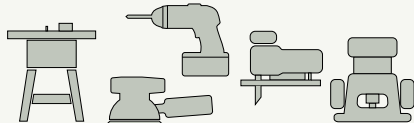
The planter box by itself makes a handsome addition to your landscaping.



BASIC-BUILT

GREAT PROJECTS MADE SIMPLE.

WHAT YOU'LL NEED



■ **Materials:** ¾" cypress, ¾" copper pipe.

PROJECT HIGHLIGHTS

■ Cypress and copper pipes endure all types of weather.

Plant this box wherever you'd like a splash of greenery, and perhaps some added privacy. An open grid inside the box supports plant containers while allowing water, leaves, and dirt to fall through. Build just the box (*inset*), or add the wood-and-copper-water-pipe trellis to support vines. We built ours from cypress [Source, page 7], but cedar or redwood, or fir with a coat of paint will also stand up to the elements.

Stack slats to build a box

1 Machine the box front, back (A), and side (B) slats to size [Materials List, page 7]. Rout a ⅜" chamfer on the top outside edge of six front and back slats and six side slats [Drawing 1]. Use a squaring brace [More Resources, page 7] to help assemble four slat frames [Photo A]: three with chamfered edges and one unchamfered.

2 Cut the front/back corner trim (C) and side corner trim (D) to size.

Quick Tip! Stack the four slat frames (A/B) with ⅛" spacers between them to determine the exact length of the trim pieces. Glue and screw a front/back corner trim and a side corner trim together to make four corner assemblies [Drawing 1]. Finish-sand the slat frames and corner assemblies to 150 grit.

3 Starting with a chamfered slat frame (A/B), screw the slat frames to the corner assemblies (C/D). Use the ⅛" spacers again to space the frames [Photo B].

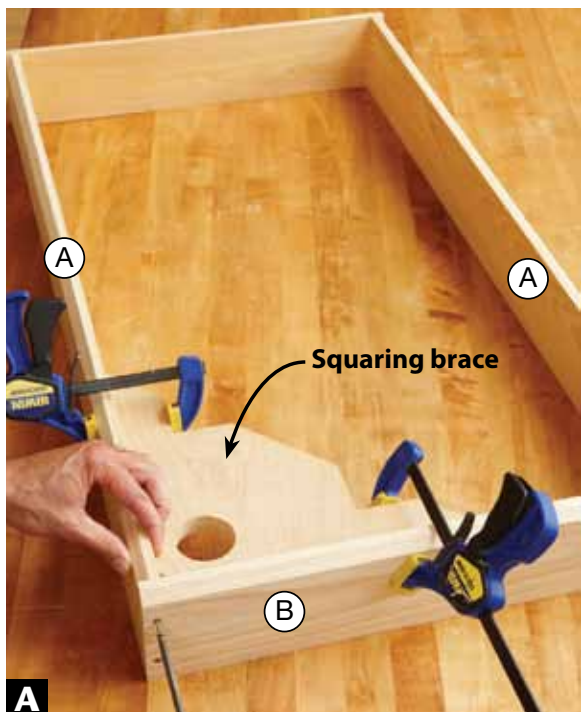
4 Cut the top- and bottom-frame rails (E, F, G, H) to size [Drawing 1]. Assemble the top and bottom frames with pocket screws, then rout a ⅜" chamfer along the bottom outside edge of the top frame (E/F) and the top outside edge of

the bottom frame (G/H). Finish-sand the frames to 150 grit.

5 With the chamfered face of the bottom frame (G/H) facing up, use a water-resistant wood glue (Type II or III PVA or polyurethane) to glue the box (A–D) to the bottom frame, centered. Then center and glue the top frame (E/F) to the top of this assembly with the chamfers facing down [Drawing 1].

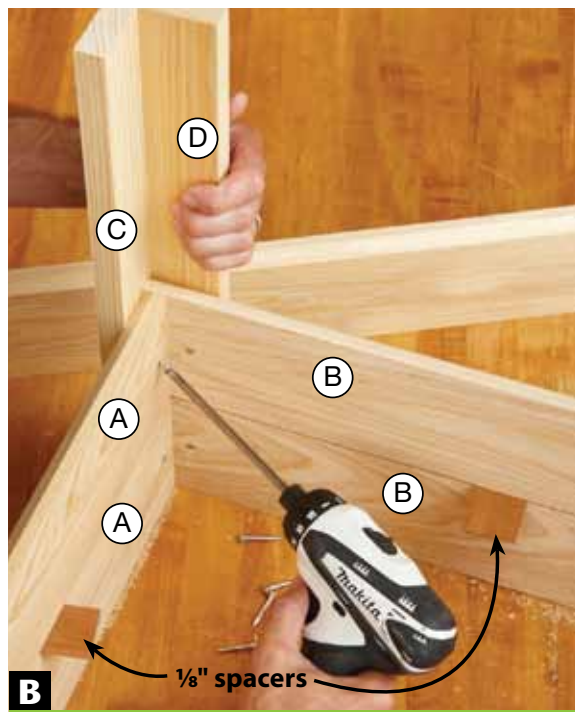
6 From 1½"-thick stock (we laminated ¾" boards), cut the front and back feet (I) and side feet (J) to size [Drawing 1a]. Cut ⅜×¾" dadoes in the front and back feet as shown in Photos C, D, and E. Reset the rip fence ¾" from the outside of the blade and cut a rabbet in each side foot [Photo F].

7 Lay out the arch on each front, back (I), and side (J) foot [Drawing 1a]; then jigsaw just outside the line, and sand up to the line. **Note:** Make two rights and two lefts of each part. Glue and clamp a front or back foot to each side foot. After the glue dries, sand the feet to 150 grit, then glue the feet to the bottom frame, centered on the width of the frame rails (G, H).



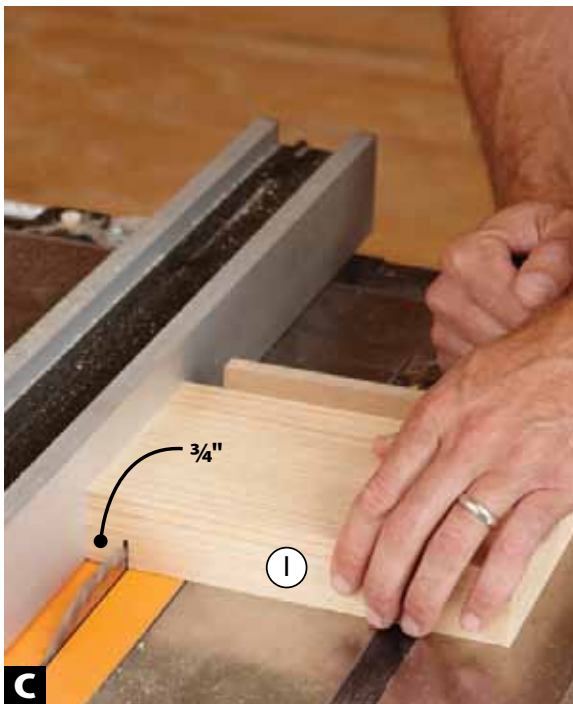
A SCREW THE SLAT FRAMES

Clamp the front/back slats (A) between the side slats (B), drill two countersunk pilot holes at each joint, then assemble the frames.



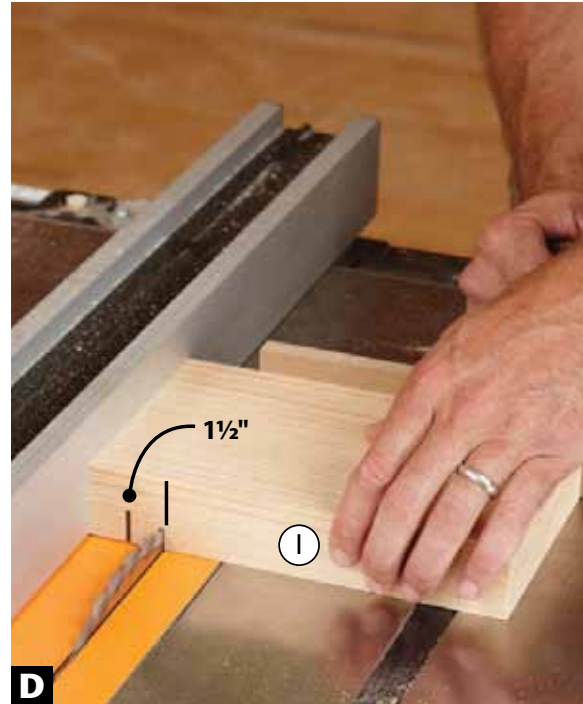
B STACK AND FASTEN THE FRAMES

Drive screws from inside the slat frames (A/B) into the corner assemblies (C/D). The unchamfered frame goes on top of the box.



CUT WIDE DADOES WITH A REGULAR BLADE

Set the blade $\frac{3}{4}$ " above the table and the rip fence $\frac{3}{4}$ " from the blade. Make a pass across one end of each front and back foot (I).



Reset the fence $1\frac{1}{2}$ " from the *outside* of the blade and make a second kerf in each front and back foot.



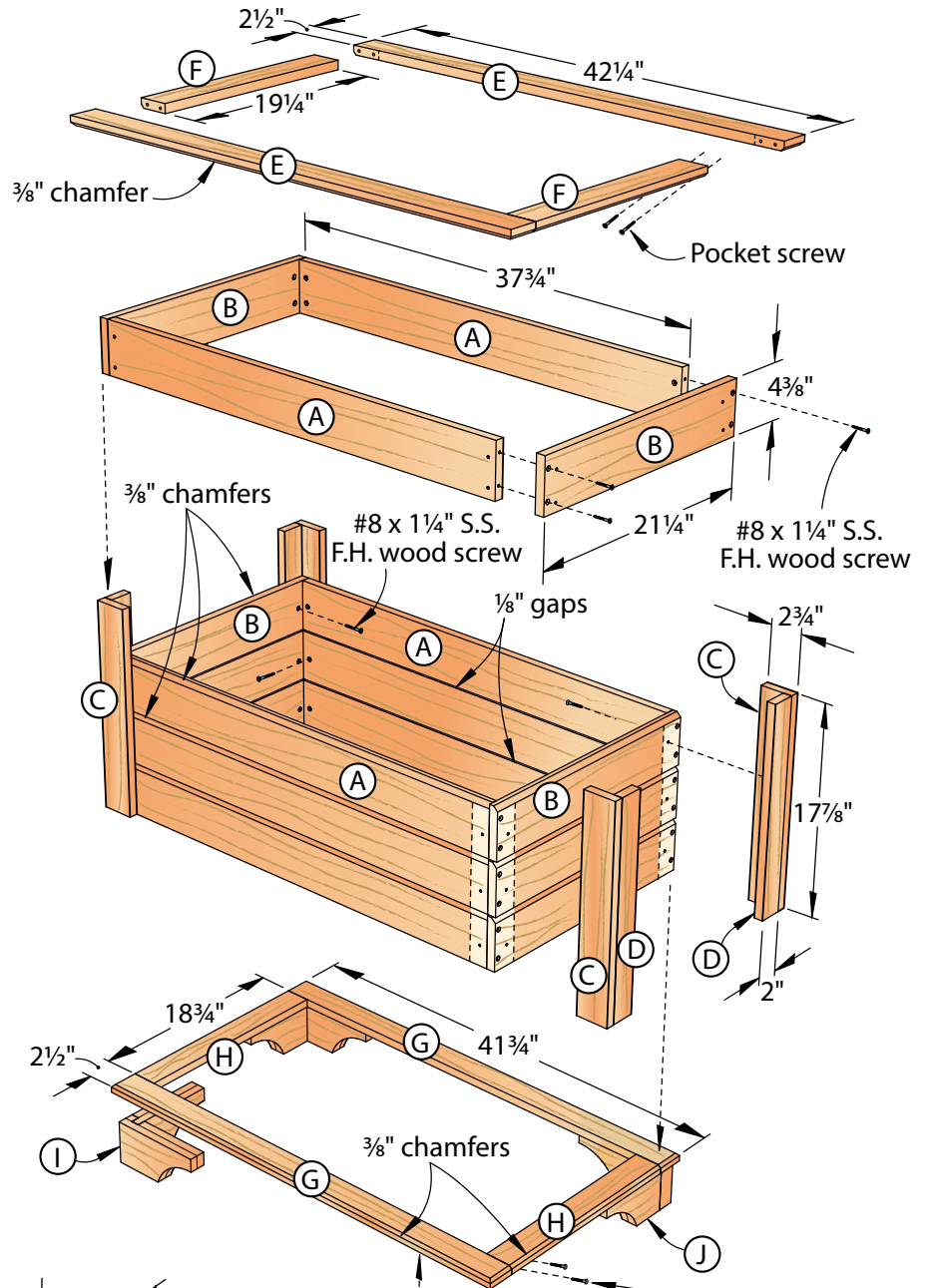
Slide the workpiece away from the fence one blade width at a time and nibble away the waste between the kerfs.



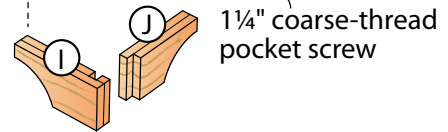
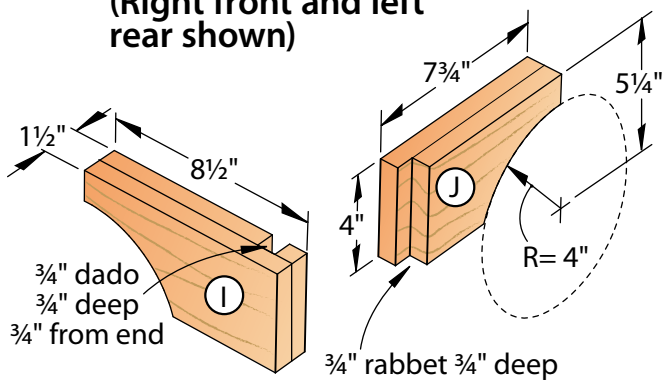
RABBET THE SIDE FEET

Cut a rabbet in each side foot (J), leaving a tongue that fits the dado in the front and back feet (I).

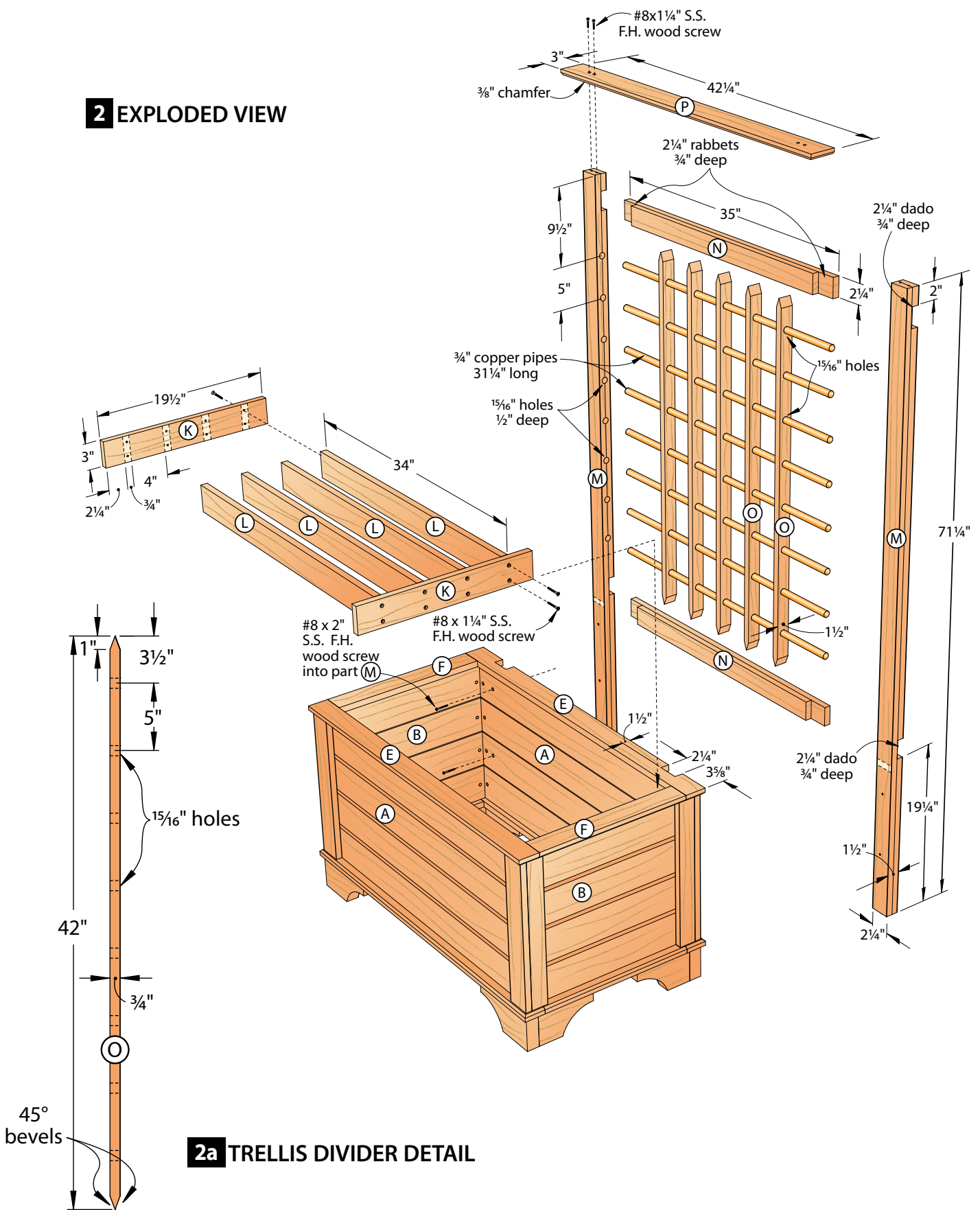
1 BOX ASSEMBLY



1a FOOT DETAIL
(Right front and left rear shown)



2 EXPLODED VIEW



8 Cut the drip-frame ends (K) and slats (L) to size [Drawing 2] and screw the drip frame together. Place the drip frame in the box. If you don't want to build the trellis, apply an exterior finish to complete the box. **Quick Tip! Choose a finish with outdoor life.** We applied a clear finish to show the project's grain, but a heavily pigmented stain will better endure sun and weather.

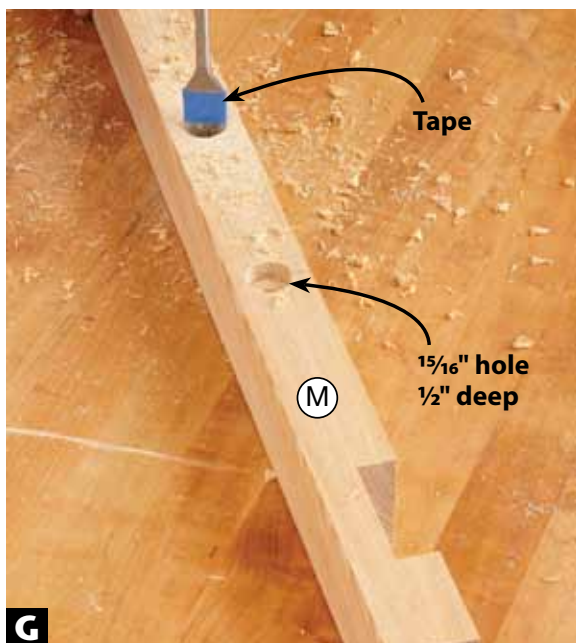
Try the trellis

1 From laminated $\frac{3}{4}$ " stock cut the trellis uprights (M) and rails (N) to size [Drawing 2]. Lay out the dadoes on the uprights and the rabbets on the rails. Using the same method used on the feet (I, J), cut the joints.

2 On the uprights (M), lay out locations for the holes that hold the pipe [Drawing 2], then drill them [Photo G].

3 Cut the trellis dividers (O) to size. Set them side by side on your bench with their ends flush and lay out the hole locations [Photo H, Drawing 2a]. To prevent chip-out when the bit exits the hole, set the divider on top of a piece of scrap, then drill the holes.

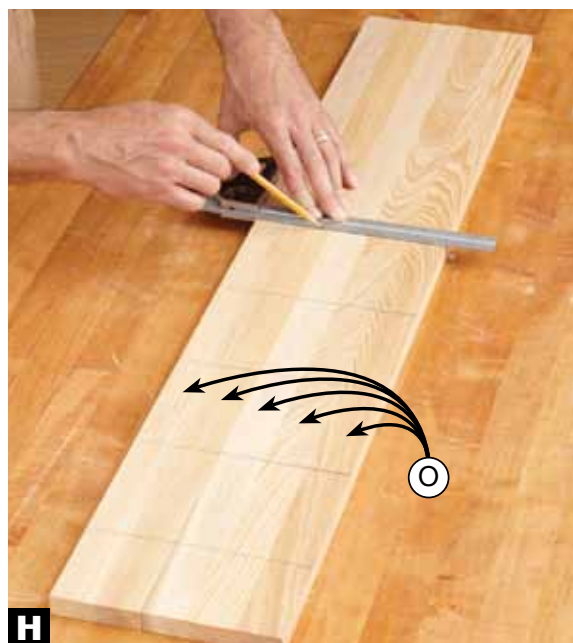
4 Tilt your tablesaw blade to 45° and install a zero-clearance insert. Clamp a stopblock to the rip fence in front of the



G

BORE HOLES FOR THE PIPE

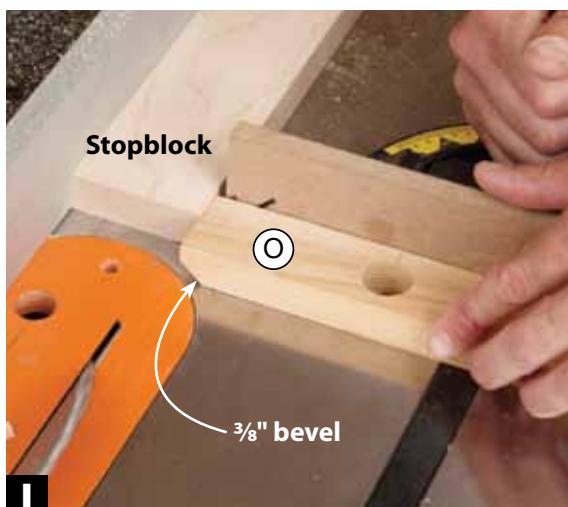
To mark the hole depth, wrap tape around a $1\frac{5}{16}$ " spade bit $\frac{1}{2}$ " above the cutters. Drill the holes on the marks.



H

LAY OUT HOLES FOR THE TRELLIS

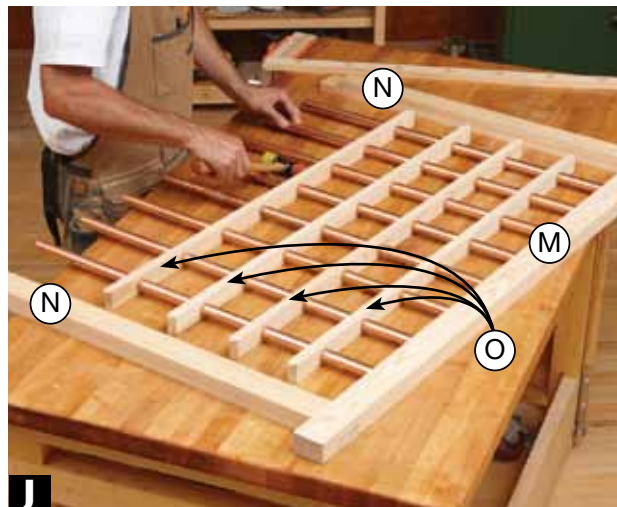
Draw lines across all five trellis dividers (O), then lay out the intersecting centerline along each piece to find the hole centerpoints.



I

BEVEL THE DIVIDER ENDS

Set a stopblock to bevel half the divider's thickness. The stopblock also creates room for the waste to fall away.



J

CHECK THE FIT OF THE TRELLIS

Slide the dividers (O) onto the copper pipes, and check that the assembly fits inside the dry-fit trellis (M/N).

Materials List

Part		FINISHED SIZE			Matl.	Qty.
		T	W	L		
Planter box						
A	front/back slats	¾"	4⅜"	37¾"	C	8
B	side slats	¾"	4⅜"	21¼"	C	8
C	front/back corner trim	¾"	2¾"	17⅞"	C	4
D	side corner trim	¾"	2"	17⅞"	C	4
E	top-frame front/back rails	¾"	2½"	42¼"	C	2
F	top-frame side rails	¾"	2½"	19¼"	C	2
G	bottom-frame front/back rails	¾"	2½"	41¾"	C	2
H	bottom-frame side rails	¾"	2½"	18¾"	C	2
I*	front/back feet	1½"	4"	8½"	C	4
J*	side feet	1½"	4"	7¾"	C	4
K	drip-frame ends	¾"	3"	19½"	C	2
L	drip-frame slats	¾"	3"	34"	C	4
Trellis						
M*	trellis uprights	1½"	2¼"	71¼"	C	2
N*	trellis rails	1½"	2¼"	35"	C	2
O	trellis dividers	¾"	1½"	42"	C	5
P	trellis top	¾"	3"	42¼"	C	1

*Parts laminated from ¾"-thick stock.

Material key: C—cypress.

Supplies: #8x1¼", #8x2" stainless steel F.H. wood screws (or 1¼" and 2" deck screws); 1¼" coarse-thread pocket screws; ¾" copper pipe (3 10' lengths).

Bits: 45° chamfer router bit; 1½" spade bit.

Source

Cypress lumber: Wilson Lumber Co., 1279 N. McLean Blvd., P.O. Box 820526, Memphis, TN 38182-0526, 901-274-6887, cypressusa.com. For a list of other cypress suppliers, go to the Southern Cypress Manufacturers Assn., cypressinfo.org.

MORE RESOURCES

FREE PLAN AND ARTICLE

- Build a squaring brace using the plan at woodmagazine.com/brace
- Learn more about bald cypress at: woodmagazine.com/cypress

FREE VIDEO AND GALLERY

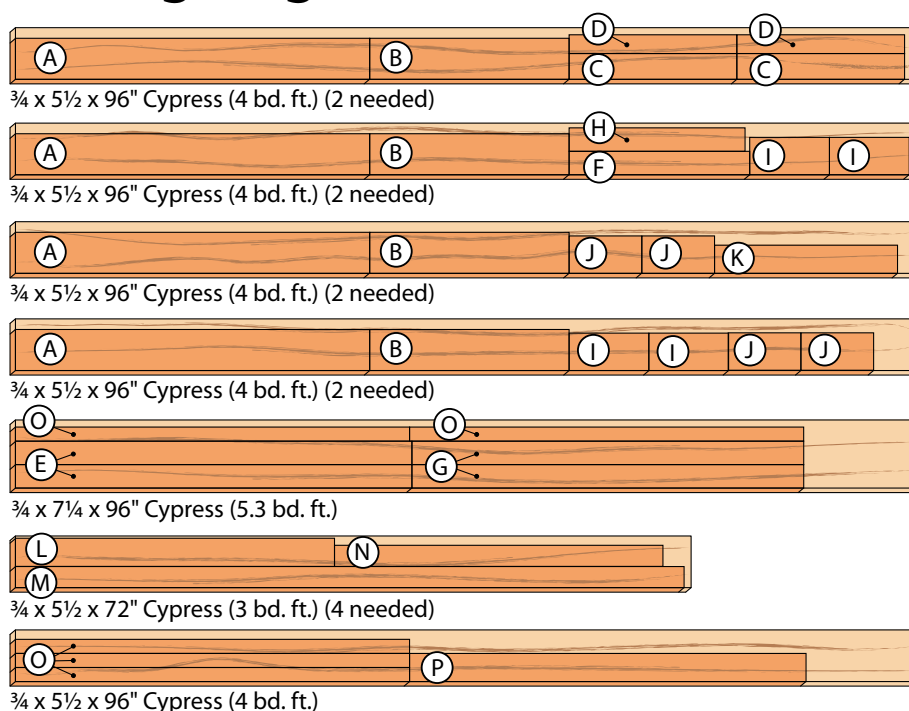
- Watch how to mill lumber straight, flat, and square at woodmagazine.com/stockprepvld
- Visit our gallery of reader-submitted outdoor-project photos at woodmagazine.com/outdoorgallery

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(\$=Download these plans for a small fee.)

Cutting Diagram



blade and, making test cuts on scrap the same thickness as the trellis dividers (O), adjust the rip-fence position to cut $\frac{3}{8}$ " bevels [Photo I]. Bevel the ends of the dividers.

5 With a hacksaw or pipe cutter, cut eight 31 $\frac{1}{4}$ "-long pieces of $\frac{3}{4}$ " copper pipe. Remove lettering and stickers from the pipe using a cloth dampened with lacquer thinner.

6 Glue and clamp one end of each trellis rail (N) to a trellis upright (M). Dry-fit the pipes and trellis dividers (O) [Photo J] and clamp this assembly between the trellis uprights to check the fit. Remove the dividers and pipes and once again dry-fit the loose upright to

the rails. Center the uprights/rails assembly on the back of the box (A-L) and mark locations for notches to accept the uprights. Cut the notches with a hand-saw or coping saw.

7 Cut the trellis top (P) to size and rout a $\frac{3}{8}$ " chamfer around one face [Drawing 2]. Disassemble the trellis and set the pipes aside. Sand the trellis parts to 150 grit. Tape off the unglued half-lap joints on the trellis upright (M) and rails (N) and apply a finish to the uprights, rails, dividers (O), and trellis top.

8 After the finish dries, remove the tape, reassemble the trellis, and glue the final upright (M) in place. Screw the top (P) in place, centered on the depth

and width of the trellis. Fit the trellis in the notches in the top-frame rail (E) and screw the trellis to the rear of the box [Drawing 2]. Place containers on the drip frame (K/L) and fill them with plants. 🌿

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Planting possibilities

The planters shown here were filled by the manager of the Better Homes and Gardens Test Garden® using plants readily available at most independent garden centers or big-box stores.

- ① Clematis "Sweet Autumn"
 - ② Duranta "Gold Edge"
 - ③ Coleus "Kingswood Torch"
 - ④ Thyme "Lemon"
 - ⑤ Calibrachoa "Trailing Plum"
-
- ⑥ Canna "Burning Ember"
 - ⑦ Coleus "Dark Star"
 - ⑧ Pennisetum "Princess Molly"
 - ⑨ Sweet potato vine "Black Heart"



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