



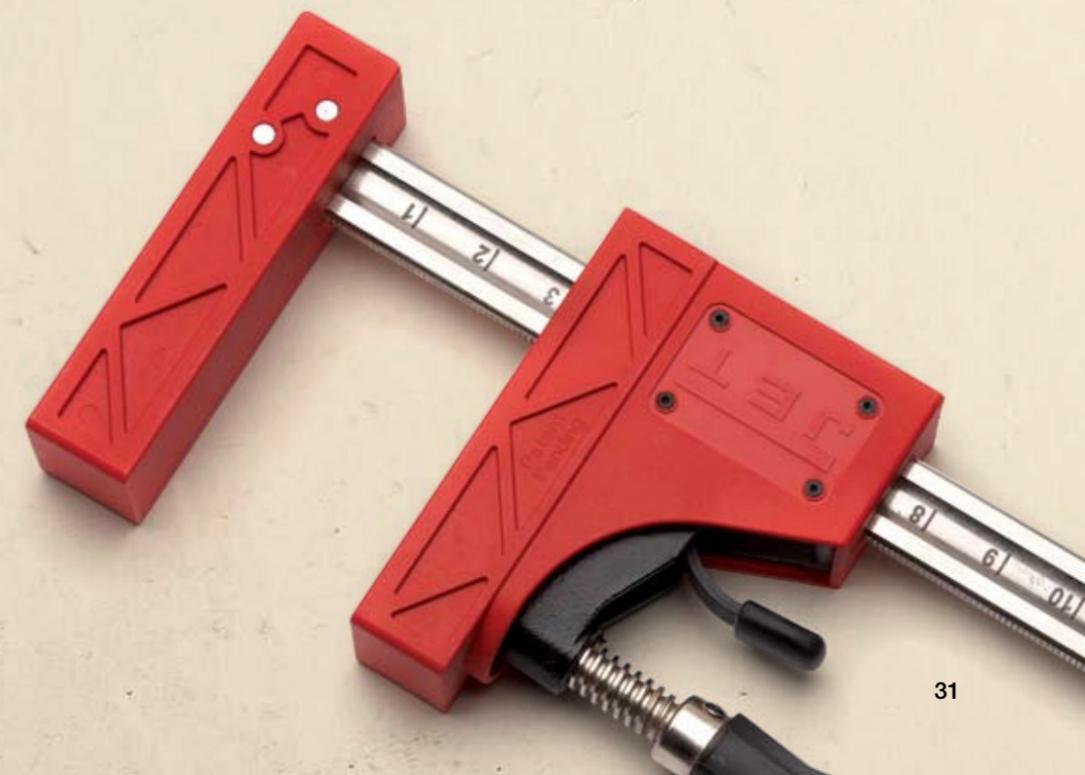
GARDEN BENCH

4

Here's a really versatile piece of furniture that would be at home in a variety of settings — when I started looking around our yard, I found at least three places where I wanted one. The construction techniques are

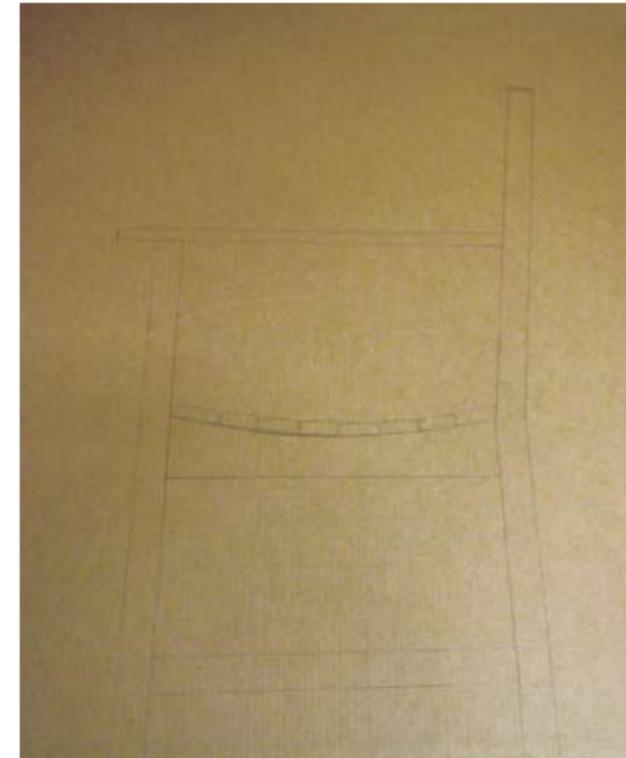
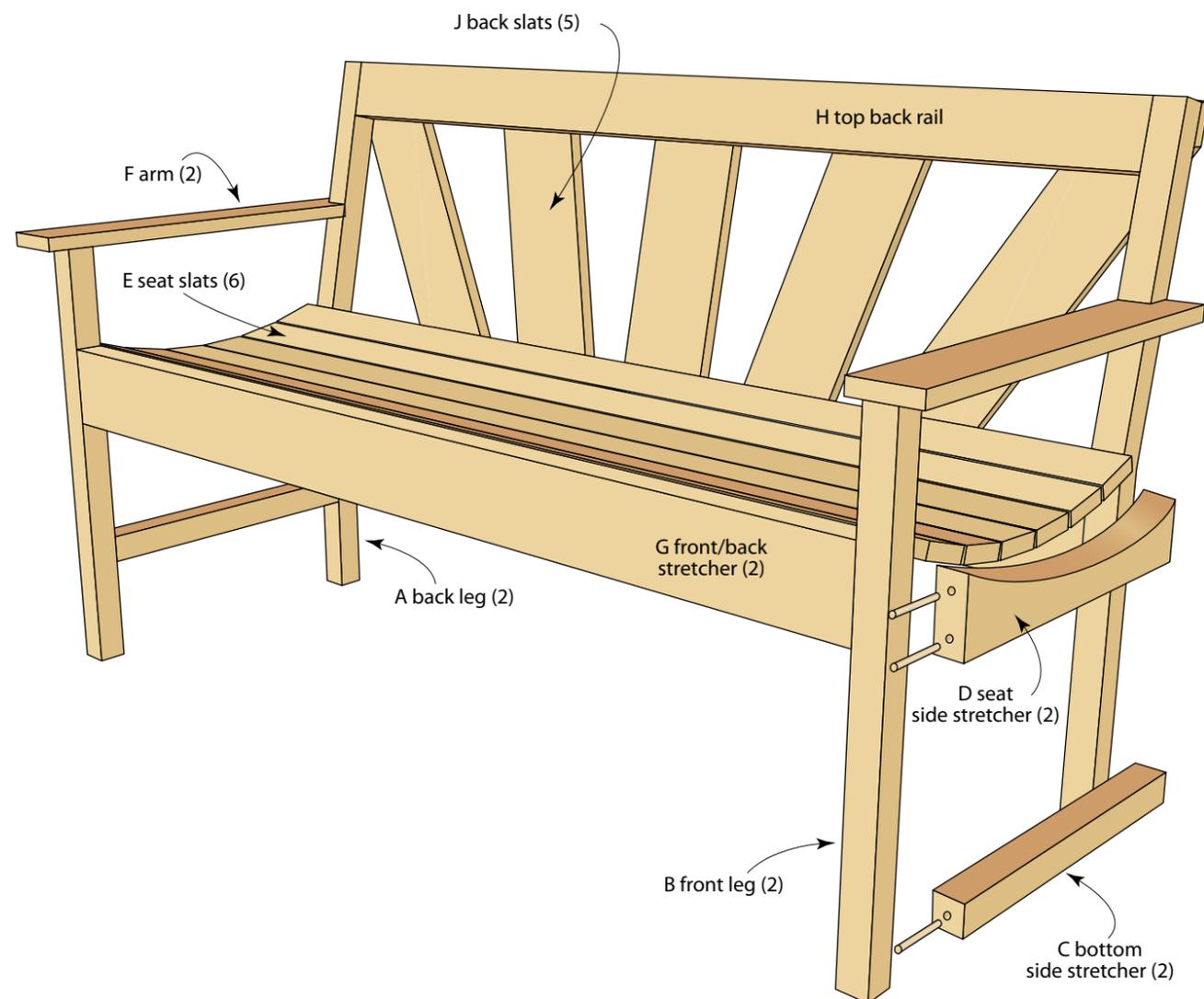
simple and low-tech: no table saw is required to make this bench, as it relies on dimensioned lumber (1×4s and 2×4s) straight from your local home center. You won't need a planer, either, because this kind of wood has already been surfaced at the mill. As far as tools go, you'll get by just fine with a drill, a jig-saw and a doweling jig. And long screws could be substituted for the dowels, too.

I decided to paint the bench a bright blue color so that it would stand out and lend a funky touch to the garden that it would complement. Varying the finish would change the feel of the piece quite a bit, so I suggest staining it or painting it in whatever way best enhances your landscape.



GARDEN BENCH • INCHES (MILLIMETERS)

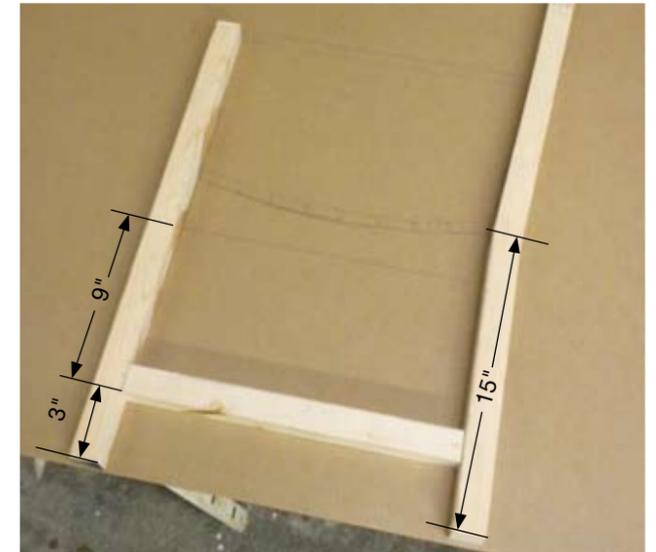
REFERENCE	QUANTITY	PART	STOCK	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	COMMENTS
A	2	back legs	2x4	1½ (38)	3½ (89)	34 (864)	cut to shape
B	2	front legs	2x2	1½ (38)	1½ (38)	24 (610)	
C	2	bottom side stretchers	2x2	1½ (38)	1½ (38)	16½ (419)	
D	3	seat side stretchers	2x4	1½ (38)	3½ (89)	16½ (419)	cut to shape
E	6	seat slats	1x4	¾ (19)	2 ⁵ / ₈ (89)	54 (1372)	
F	2	arms	1x3	¾ (19)	3½ (89)	22 (559)	
G	2	front & back stretcher	2x4	1½ (38)	3½ (89)	50 (1270)	
H	1	back top rail	2x4	1½ (38)	3½ (89)	50 (1270)	
J	5	back slats	1x6	¾ (19)	5½ (140)	24 (610)	trim to fit fan



1 I find that the easiest way to begin a project like this is by building the sides first. To help me decide on the details of the design, I made a full-size drawing of the bench side.



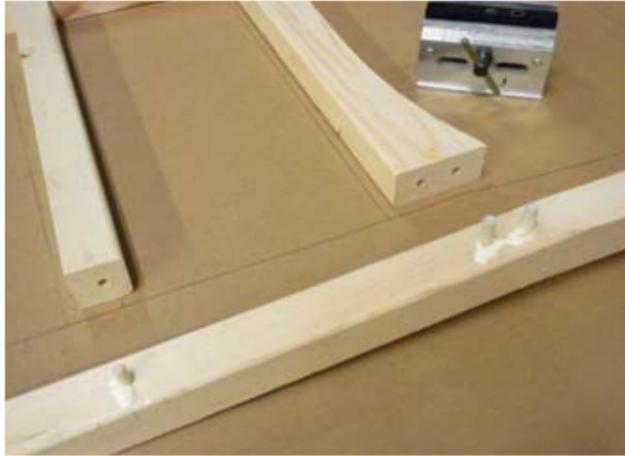
3 I cut the two 2x4s for the seat side stretchers down from their 3½" width to 2¾" (to allow for the thickness of the seat slats). I then marked and cut a simple arc on the top edges, leaving 1¾" at the center of the arc. I decided to join the parts of the bench together with dowels, so the marks indicate a dowel location. They also serve as handy reference points that could help to quickly and easily reposition the pieces in the correct spots in case things get shuffled around, as they often do.



2 The drawing also comes in handy as a template for laying out the pieces and marking them for the joinery that will hold them together. I was able to determine that the lower stretcher should be placed 3" up from the bottom of the leg, and that the seat stretcher is located 12" up from the floor. The drawing also let me design the angle of the back leg, with the angle starting 15" from the floor. The back leg itself is cut to shape from a 2x4. I marked 15" up from one end along the left side for the "inside" of the leg. I then drew a line up to the top right corner of the 2x4, measuring over 1½" from the right edge. Voila, an angled leg.



4 This dowel jig is worth its weight in gold, and at \$40 it is one of my favorite bang-for-your-buck tools. It automatically centers the hole across the width of the parts and accepts thick stock such as these legs and stretchers.



5 (ABOVE) Just before the final assembly, I dry-fit the parts to make sure they'll work. Then the joints go together with plenty of glue — more than you see in this photo — and make sure to apply adhesive to the entire dowel and the surrounding area.

6 (RIGHT) Two clamps are sufficient to ensure good, even clamping pressure.



7 (ABOVE LEFT) With the first side clamped up, the second goes together the same way — and it is usually a little bit quicker, as well, since you've just practiced it once. I like to lay the parts on top of the first side to double-check that the sides are identical and that no errors crept in the second time around.

8 (ABOVE RIGHT) Joining the sides with the seat boards helps the project really start to look good. I tack them in place with a brad nailer and then reinforce the joint with weather-resistant screws. Spacing the slats is easy since I'd already ripped them to the width indicated in the cutting list.

9 (LEFT) I put the front and back slats in first and then just set the middle ones in, maintaining small, even gaps between them all.



10 I used a 2x4 stretcher at the front of the bench to join the sides — this may be overkill, but it provides a lot of rigidity. I also added an identical one to the back of the bench.



11 The stretchers are positioned so that their top edge is essentially flush with the seat slat closest to them. I secured the stretchers with long screws.



12 (LEFT) Here's a nice picture of the overall progress.

13 (TOP) The arms could be shaped any way you like (taking a page from Adirondack chair design, perhaps), but I kept it simple here. They do need to be notched at the back edge so that they can fit around the rear leg.

14 (ABOVE) I used a jig saw to cut the notch.



15 The arm can be attached to the front leg by simply screwing down through the top of the arm.



16 The back of the arm is easy to attach to the rear leg with a long, counter-bored screw.



20 To determine how much extra material to remove, I drew a line along the bottom of the fan.



21 I also drew a line across the top. The top corner of the slat on the end needed to be trimmed to a point.



17 (ABOVE LEFT) To provide a safe and sturdy seat, I attached a brace on the underside of the slats. The profile matches the curve on the stretchers that hold the sides together.

18 (ABOVE RIGHT) The brace can be secured through the stretchers on the front and rear of the bench. I also recommend screwing and nailing down through the top of the slats into the brace.



19 (LEFT) I decided to make a fan-back for this bench as a way of breaking up its rectilinear nature just a bit. I think it added a rather playful touch. To lay out the back slats, I started with the easy part: the center slat simply runs perpendicular to the seat slats, and it is centered across the back. Once it was in place, I laid out the next two slats by eye — in this case, that meant that they needed to touch at the bottom of the fan and they were 6" apart when measured at the bottom of the top rail. I set them down with plenty of overhang on each end of the slats so that the excess could be trimmed away.



22 (ABOVE LEFT) I didn't worry about the unevenness at the bottom of one of the slats because the back of the bench was going against a wall and so I decided not to sweat the small stuff.

23 (ABOVE RIGHT) The other side of the fan is laid out and trimmed in the same manner.

24 (LEFT) From the front, the effect is quite nice!

