

CONTEMPORARY ADIRONDACK CHAIR



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**A SLEEK,
COMFORTABLE
UPDATE OF A
CLASSIC DESIGN**

Because I grew up in upstate New York, I've always been a big fan of the Adirondack chair. I appreciated the wide armrests, contoured seat and curved back, but I didn't like the bulky appearance and the low seat that made getting up difficult. So when I was asked to build a modern version of this

American classic, I was thrilled to be able to make some changes.

My goal was to come up with a sleek, stylized outdoor chair that still had the look, feel and comfort of a traditional Adirondack. After you build the version shown in the plans on p. 7, grab a cold lemonade and have a seat

— I think you'll agree that the mission was a success.

Instead of using one of the common types of exterior-rated boards, such as cedar or pressure treated pine, I built these chairs using a new product called Perennial Wood. These boards are Southern pine that has gone through an interesting new treatment process (see "First Impressions," p. 8). The boards measured 7/8 in. thick x 5-3/8 in. — if you prefer, you can substitute other types of wood deck boards and the cutting dimensions will remain the same.

BUILD THE LEG ASSEMBLIES

Whenever I build a piece of furniture that has a lot of curved profiles, I make full-size templates of all of the curved parts. This approach is especially useful for building multiple pieces. (It will come in handy in the future, when your neighbor sits in your chair and asks you to build one for him.) I draw the shape on 1/4-in. plywood or hardboard, cut it out and then trace the template on the actual parts (**photo 1, below**).

Once you've made the templates, cut the four legs to the rough sizes stated in the cutting list (above) before cutting them to their final shapes. Use a miter saw to cut the ends of the back legs (**B**) at 35 degrees; then use a jigsaw or a

CUTTING LIST

▶ KEY	NO.	DESCRIPTION	SIZE
▶ A	2	Front legs	7/8 x 3 x 25-1/4 in.
▶ B	2	Back legs	7/8 x 5-3/8 x 34 in.
▶ C	2	Front leg brackets	7/8 x 2-3/8 x 25-1/4 in.
▶ D	2	Armrest supports	7/8 x 2 x 21-3/8 in.
▶ E	2	Seat supports	7/8 x 5-3/8 x 23-1/2 in.
▶ F	1	Seat front	7/8 x 2-3/4 x 22 in.
▶ G	7	Seat slats	7/8 x 2-1/4 x 22 in.
▶ H	1	Back seat slat	7/8 x 3-7/8 x 22 in.
▶ I	2	Armrests	7/8 x 5-3/8 x 25-3/4 in.
▶ J	1	Lower back rail	7/8 x 4 x 22 in.
▶ K	1	Middle back rail	7/8 x 5-3/8 x 25-3/4 in.
▶ L	1	Upper back rail	7/8 x 3-3/4 x 22 in.
▶ M	1	Middle back slat	7/8 x 5-3/8 x 33-3/4 in.
▶ N	2	Inside back slats	7/8 x 5-3/8 x 32-1/4 in.
▶ O	2	Outside back slats	7/8 x 5-3/8 x 30-3/4 in.

SHOPPING LIST

▶ 7/8 x 5-3/8 x 96-in. deck boards (7)
▶ 1/4 x 2-1/2-in. stainless steel carriage bolts, washers and nuts (6)
▶ 1-5/8-in. deck screws (1 box)
▶ 2-1/2-in. deck screws (6)
▶ Semitransparent stain or paint (1 quart)

band saw to cut the curves (**photo 2, p. 9**), and clean them up with a sander.

Cut the armrest supports (**D**) to size and then drill four pilot holes for the screws that will attach the supports to the armrest. These holes should be slightly oversize (roughly 3/16 in. dia.) to allow

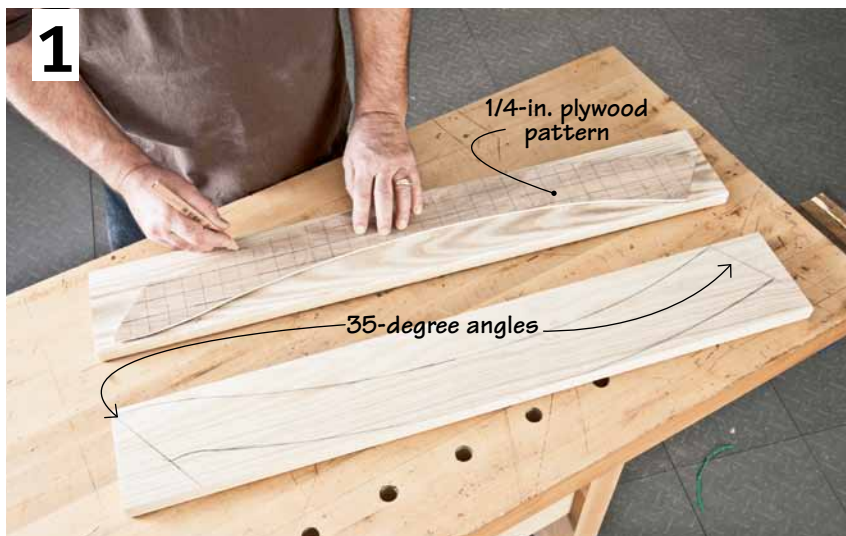
the shank of the 2-1/2-in. screws to slide freely in the countersunk holes. This will allow you to easily draw the armrest tight and avoid splitting the supports.

Next, use a router equipped with a 1/8-in.-radius roundover bit to ease the edges. If you don't have a 1/8-in.-dia. bit, you can use a slightly larger roundover bit, such as a 1/4-in.-radius bit, and set the router height so that the bit is not cutting at its full cutting depth.

To build each leg assembly, fasten the front leg (**A**) and back leg (**B**) to the armrest support (**D**). Do not attach the front leg brackets (**C**) at this time. Follow the spacing in the drawing, and clamp the pieces in place to keep the assembly square. Drill pilot holes and countersinks; then fasten the legs with 1-5/8-in. deck screws (**photo 3**).

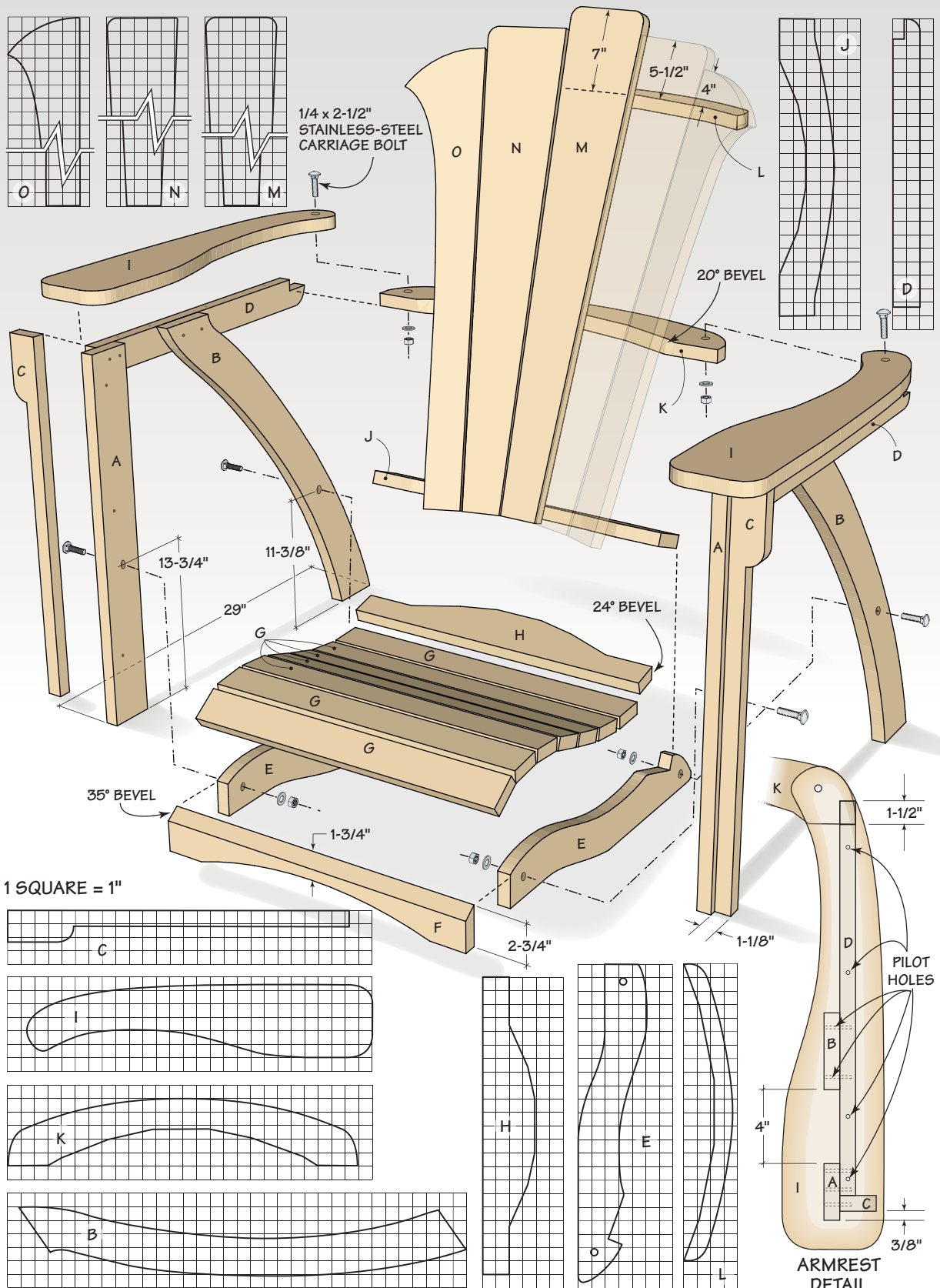
MAKE THE SEAT

Rip a 35-degree bevel along the top edge of the seat front (**F**); then mark and cut an arched profile (with a rise of about 1 in.) in the bottom edge. Next, make a template for the seat supports (**E**). Trace the template on each seat



▲ Make full-size templates for the curved pieces so you can trace the contours on the actual parts.

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support and cut the shape. Then cut the seat slats (G) to size and ease the top edges with a router and a 1/8-in.-radius roundover bit.

Attach the seat front to the seat supports, lining up the top edge of the seat front's bevel with the top edge of the seat supports (E). Position the front seat slat (G) so that it overhangs about 1/2 in., and attach it to the seat supports with a single 1-5/8-in. screw centered in each end. Attach the rest of the slats, working your way to the back of the seat and leaving a 1/4-in. gap between slats. Do not attach the back seat slat (H) yet; you'll do that after you've assembled the back.

ASSEMBLE THE CHAIR BOTTOM

Lay one of the leg assemblies on its side and position the seat assembly on the legs. The bottom edge of the front of the seat support should be 11-3/4 in. above the bottom of the front leg, and the bottom edge of the back of the seat support should measure 10 in. from the floor. Attach the seat assembly with a single 1-5/8-in. screw driven into each leg (photo 4, p. 9). Offset these screws to allow for the bolt hole that you will later drill into the center of each leg connection. Flip the chair over and attach the other leg assembly.

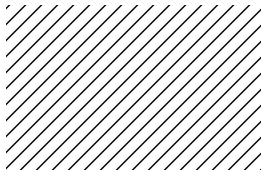
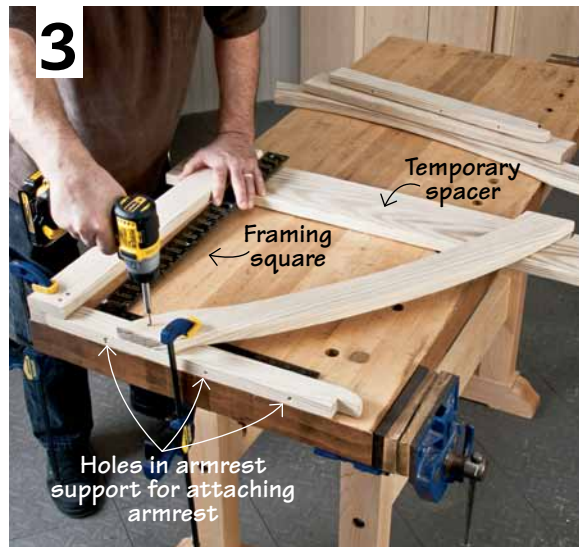
FIRST IMPRESSIONS

This is the first time I've used Perennial Lumber, Southern yellow pine treated with heat, pressure and an organic compound to make it much more resistant to water absorption. When the lumber was delivered, the first thing I noticed was its strong vinegar odor (which eventually fades away). The next thing I observed was that the straight-grain boards were free of knots and completely flat and straight. The wood machined well and was a pleasure to work with. The downside is that the treatment process left the boards harder and heavier, and they had a tendency to split if I overtightened the screws or didn't drill pilot holes. For more information on this relatively new lumber option, visit PerennialWood.com. — VG



▲ Cut close to the line and then sand up to the line to create a smooth, refined curve.

► With the leg assembly on its side, use a temporary spacer to raise the bottoms of the legs so they are level and use a square to keep the leg assembly square while screwing the legs into the armrest support.



▲ Attach the seat assembly to the two leg assemblies with 1-5/8-in. screws.



▲ Angle the jigsaw base and cut the beveled curves in one pass. Move slowly around the faceted corners.



▲ With the chair bottom upright and the four legs firmly on level ground, the middle back rail is ready to be fastened to the armrests with bolts.



▲ When assembling the back, work from the center out and from the top down.



Set the chair-bottom assembly upright on a level surface and attach the front leg brackets (C) with three 1-5/8-in. screws. Next, cut the middle back rail (K) that will be attached to the back of the armrest supports and armrests. Tilt the jigsaw base to cut a 20-degree bevel; then cut the inside curve profile of the middle back rail (photo 5, p. 9). Note that the back rail's curve profile and the back seat slat are faceted to fit the back slats. Set the jigsaw base at 90 degrees to cut the back edge of the middle back rail.

Place the middle back rail on the notched ends of the armrest supports and attach it with 1-5/8-in. screws. Next, place the armrests (I) on the armrest supports, clamp the parts in place and drive 2-1/2-in. screws up through the holes in the bottom of the armrest supports. Drill a 1/4-in. bolt hole through each armrest and the middle back rail (photo 6, top, left). Fasten the parts with 1/4- x 2-1/2-in. stainless steel carriage bolts, washers and nuts.

Next, drill the bolt holes through the legs and seat supports. Make sure that all four legs are sitting flat and level when you drill the holes and tighten the bolts.

ADD THE BACK

Lay out and cut the back slats (M, N, O) to shape. I used a jigsaw to cut close to the line on the long tapers and then sanded up to the line with a belt sander. You could also cut the long tapers on the three inside slats using a band saw or a table saw with

◀ Center the back assembly on the middle back rail and screw it in place before attaching the back seat slat (H).

a tapering jig. Ease the edges with a router and roundover bit.

Attach the back slats to the upper and lower back rails, starting with the middle back slat (M). Center the upper back rail (L) on the back of the middle slat and 7 in. below the top. Attach the slat with a 1-5/8-in. screw. Use a 1/8-in. spacer to align the two inside back slats (N) on either side of the middle slat. Position the upper back rail 5-1/2 in. below the top edge of each inside slat.

I found it easier to attach the three inside slats (M and N) to the lower back rail (J) before adding the two outside back slats (O). Center the lower back rail 3/8 in. above (and parallel to) the bottom of the middle back slat and screw it in place. Use the 1/8-in. spacers and screw the inside back slats in place.

Next, attach the outside back slats (O) to the upper and lower back rails (photo 7, p. 10). Position the top of the upper back rail 4 in. below the top of the outside slats. **Note:** The bottom of the back slats will extend past the lower back rail at different lengths because of the curve. I left them long because they are hidden by the back seat slat, and the extra length helps to strengthen the screw joint.

Set the lower back rail (J) in the seat-support notches and screw it in place. Center the back assembly on the middle back rail and fasten with a 1-5/8-in. screw in the center of each slat (photo 8).

Tilt the jigsaw base to cut roughly a 24-degree bevel, and cut the back seat slat (H). Adjust the fit as necessary; then attach the slat to the seat supports with 1-5/8-in. screws.

I finished the chairs with gray semi-transparent deck stain for a natural weathered look. Of course, you can apply the stain or paint of your choice to achieve the look you desire. Once the finish cures, pour yourself some lemonade and sit awhile. ■

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Handyman Club life member Vern Grassel is a custom furniture builder, cabinetmaker and woodworking designer in Elk River, Minnesota.