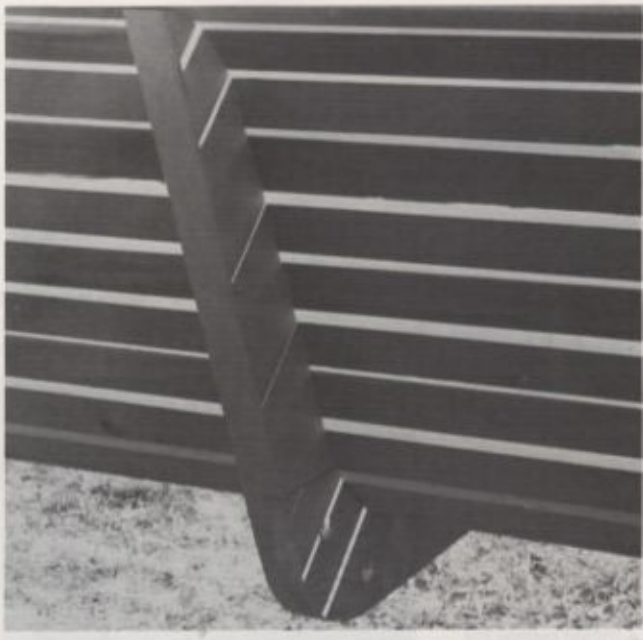
Contoured Porch Swing



Have you ever wondered why the gentle motion of rocking or swinging is so relaxing? There are several fascinating theories. Some psychologists say that it awakens pleasant childhood memories of being held and rocked by a parent. Others think that the memories go beyond childhood; that the motion reminds us of being held safe and warm in our mother's womb, rocked by her movements. And still others believe that the regular, repetitive motions are a means of mild self-hypnosis, whereby we lull ourselves into a calmer state of mind.

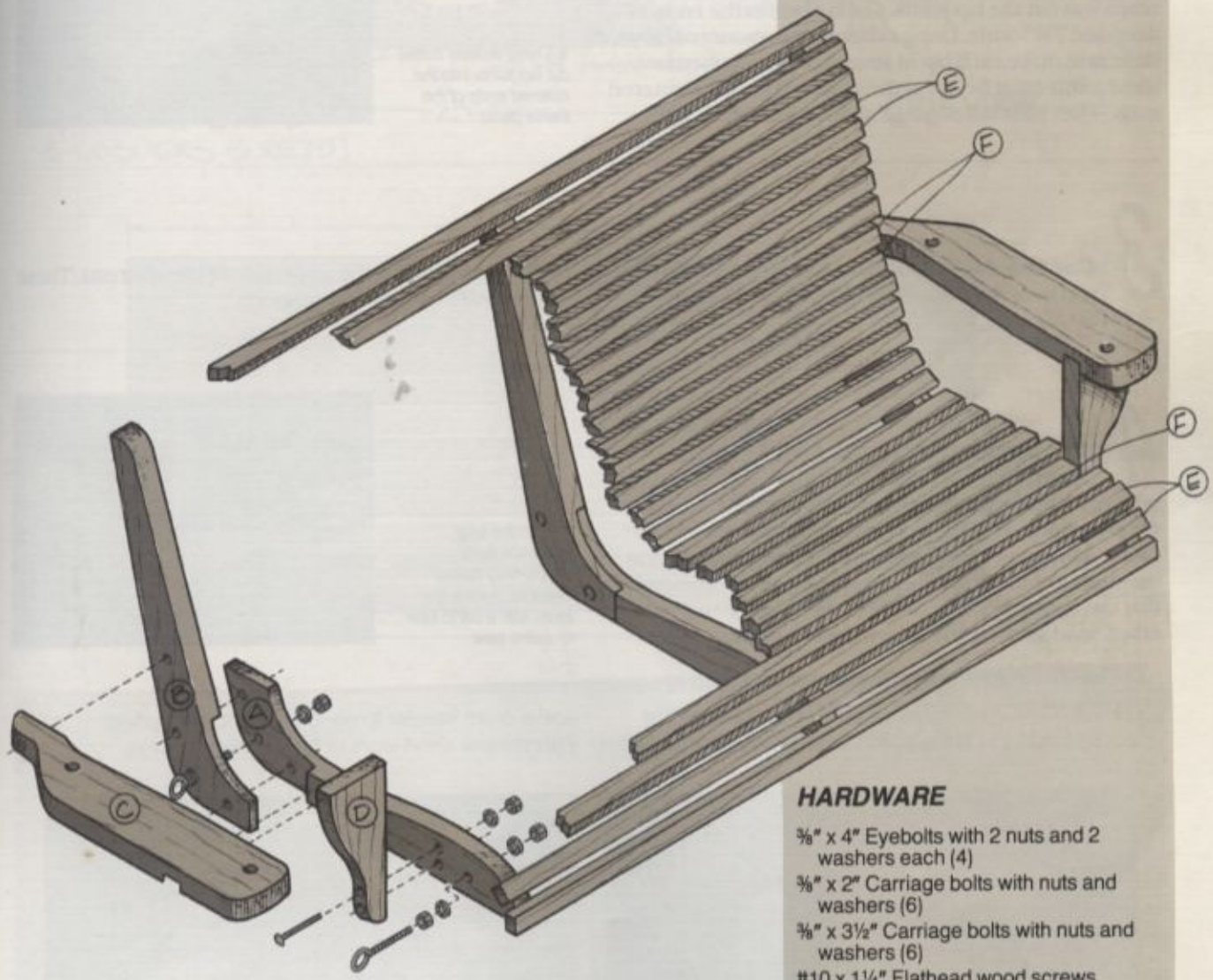
Whatever the reasons, swinging *is* relaxing. This particular porch swing is more relaxing than most because it's contoured to fit your body. The frame parts hold the slats in a gentle, comfortable curve. There are no hard flat surfaces or sharp angles to disturb your reverie.

Materials List

FINISHED DIMENSIONS

PARTS

A.	Seat frame (3)	1½" x 5⅝" x 23½"
B.	Back frame (3)	1½" x 6¼" x 25¼"
C.	Armrests (2)	1½" x 4¼" x 22"
D.	Arm supports (2)	1½" x 4¼" x 10½"
E.	Long slats (19)	¾" x 1½" x 60"
F.	Short slats (3)	¾" x 1½" x 58"



EXPLODED VIEW

HARDWARE

⅜" x 4" Eyebolts with 2 nuts and 2 washers each (4)
⅜" x 2" Carriage bolts with nuts and washers (6)
⅜" x 3½" Carriage bolts with nuts and washers (6)
#10 x 1¼" Flathead wood screws (6 dozen)
#14 x 3" Flathead wood screws (4)
Porch swing chain set, with 5' leaders
2" S-hooks (6)
⅜" Screw hooks (2)

1 ***Cut the frame parts to size.*** Cut the seat and back frame parts from 2 x 8 stock. Don't contour them at this time, just cut them to length and miter one end at 80°. Also, cut the armrest and arm support parts to length from 2 x 6 stock.

2 ***Cut the lap joints that join the seat and back frames.*** Lap the mitered ends so that they form an inside angle of 100°, and their outside edges are flush. Mark the pieces where they cross to guide you when you cut the lap joints. Cut rabbets in the ends, ¾"-deep and 7¼"-wide. Using a dado cutter mounted on your table saw, make each lap in several passes. Remember, these joints must be cut at the same angle as the mitered ends — set your miter gauge at 80°. (See Figure 1.)

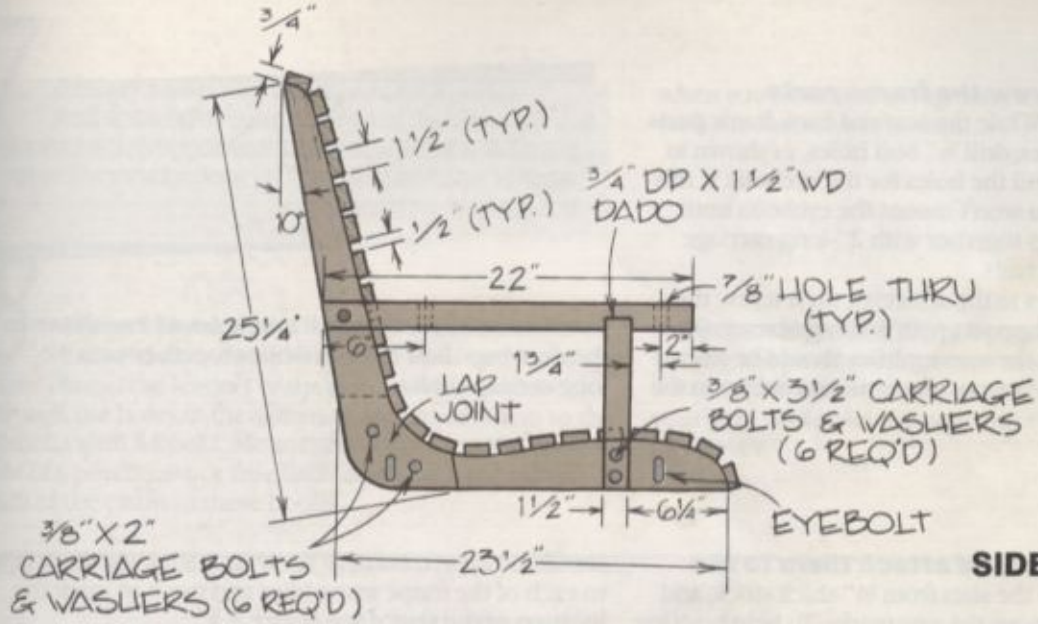
1/Using a dado cutter, cut lap joints into the mitered ends of the frame parts.

3 ***Cut the dadoes in the armrests.*** While you have the dado cutter set up, cut ¾"-deep, 1½"-wide dadoes in the underside of the armrests. These dadoes will hold the arm supports.

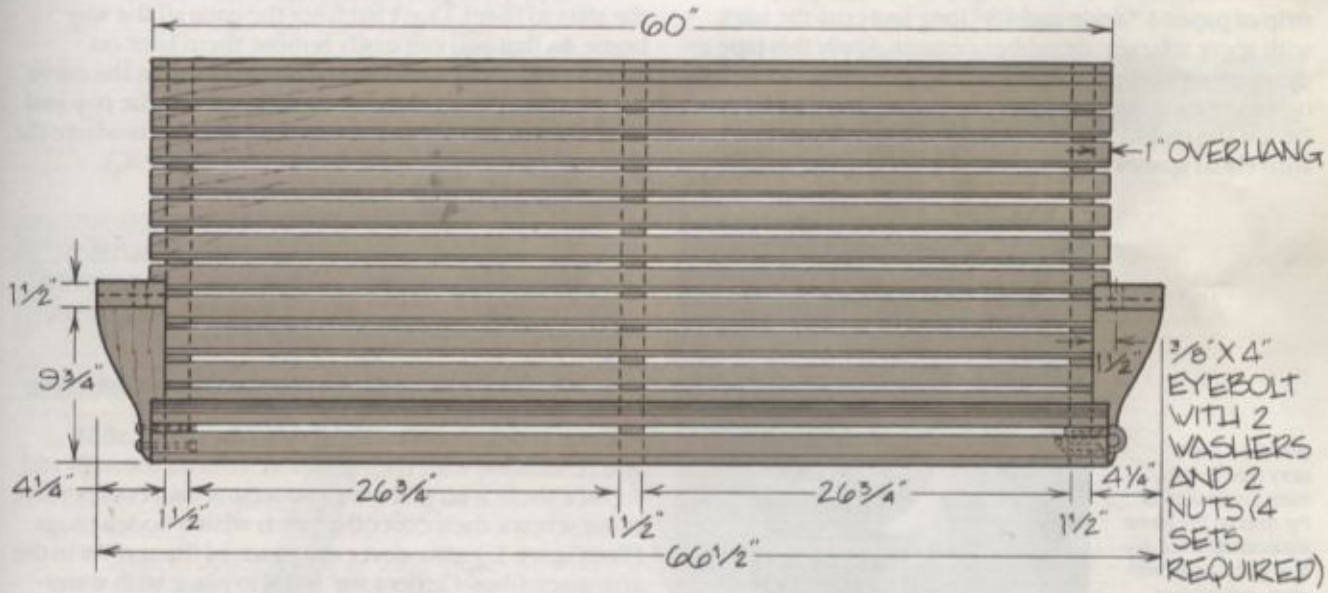
4 ***Cut the shapes of the frame parts.*** Temporarily attach the seat and back frame parts with nails. Enlarge the patterns for these parts and trace them on the stock. Then cut the contours with a band saw or sabre saw. (See Figure 2.) While you're at it, cut the shapes of the armrests and arm supports. Remember that the two armrests should be mirror images of each other. Sand all parts to remove the saw marks.

2/With the seat and back parts temporarily nailed together, cut the contours with a band saw or sabre saw.

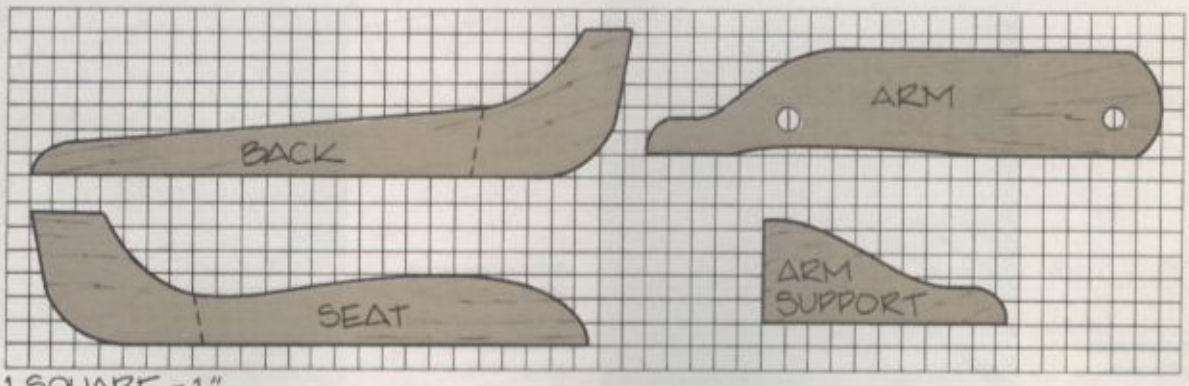
TRY THIS! Use a disc sander to sand the convex curves on the porch swing frame parts... and a drum sander to sand the concave curves. This makes short work of the sanding chores.



SIDE VIEW



FRONT VIEW



SWING PATTERNS

5 Bolt and screw the frame parts together.

While the seat and back frame parts are still nailed together, drill ⅜" bolt holes, as shown in the *Side View*. Also, drill the holes for the eyebolts at this time, even though you won't mount the eyebolts until later on. Bolt the parts together with 2"-long carriage bolts and remove the nails.

Drill the chain holes in the armrests, then screw the armrests to the arm supports with 3"-long screws. Once again, remember that these assemblies should be mirror images of each other. Position the arm assemblies on the frame assemblies; then drill bolt holes where shown in the drawings. Bolt the assemblies together with 3½"-long carriage bolts.

TRY THIS! When you install each bolt, put a flat washer over the threaded end, then a lock washer, and finally a nut. The *lock washer* will keep the nut from working loose.

6 Cut the slats and attach them to the frame.

Rip the slats from ¾"-thick stock, and joint the edges to remove the saw marks. To help position the slats on the frame, make a paper "story tape". Cut a strip of paper 1" wide and 48" long and coat the back with spray adhesive or rubber cement. Apply this tape to the contour of the frame, then trim it to the exact length of the contour. Remove the tape and measure its length. Divide the length into twenty-two 1½"-wide sections, with equal spaces between each section. (The spaces should be *approximately* ½" wide.) Stick the story tape to each of the frame assemblies and use it to mark the location of the slats. (See Figure 3.)

Once the assemblies are marked, temporarily nail the slats to them. Don't hammer the nails all the way home, so that you can easily remove them later on. Start by attaching a middle slat, somewhere in the curve between the seat and the back. Next, attach the two end slats. Finally, fill in with the rest. Use short slats where the arm assemblies bolt to the frame. (See Figure 4.)

TRY THIS! Use *finishing* nails when temporarily attaching parts, prior to bolting or screwing them together. Finishing nails leave smaller holes, and they aren't as likely to split the wood.

Once you have nailed the slats to the frame, and you're satisfied with their position, remove the nails and replace them with screws. Countersink *and* counterbore these screws, then cover the heads with wooden plugs. (See Figure 5.) Also, cover the heads of the screws in the arm assemblies. Cement the plugs in place with waterproof glue.

3/*Make a paper story tape to help mark the position of the slats on the frame assemblies. Stick this tape to the wood with spray adhesive or rubber cement.*

4/*Use short slats where the arm assemblies bolt to the frame.*

5/*Cover the heads of the screws with wooden plugs. Cut these plugs from scrap wood, and cement them in place with waterproof glue.*

7 ***Finish sand the completed swing.*** Round over the hard corners of the armrests and any other sharp edges that might rub you the wrong way when you sit on the swing. Sand the wooden plugs flush with the surface of the slats.

8 ***Mount the swing.*** Attach eyebolts to the frame where shown in the *Side View* and *Front View*. Thread the leaders of the porch swing chains through the holes in the armrests, and attach them to the eyebolts with S-hooks. Mount screw hooks to the underside of a porch joist or tree limb, and attach the other ends of the chain to these hooks.

Option: If you don't have a porch or a tree from which to hang the porch swing, make a simple frame from 2 x 4's and 2 x 6's, as we show here. Position the frame in your yard, and stake it down with #4 rebar so that it won't blow over.