

# The Barley Harvest

## CHILD

### Adirondack / Muskoka Chair Plans

#### Materials List

1/2" x 5 1/2" (13mm x 14cm) redwood or cedar fence boards or pine boards. Four, 5' (1.53m) boards should make one chair depending on knots and layout.

8, 3/16" x 1 1/4" (5mm x 32mm) brass bolts, nuts and 16 washers.

50, #4 x 1" (2.54cm) brass square drive wood screws

#### Parts List

Part	Description	Quantity	Standard Size	Metric
A	Side panel	2	19 3/8" x 2 5/8" x 1/2"	49.2cm x 6.55cm x 13mm
B	Bottom back support	1	9 1/2" x 1 3/8" x 1/2"	24.1cm x 3.5cm x 13mm
C	Front seat slat	1	9 1/2" x 1 3/8" x 1/2"	24.1cm x 3.5cm x 13mm
D	Front leg	2	10" x 2 1/2" x 1/2"	25.4cm x 6.4cm x 13mm
E	Back support	2	13"x 1 3/4" x 1/2"	33.0 x 4.5cm x 13mm
F	Arm support	2	3 3/8" x 2 1/8" x 1/2"	8.6cm x 5.4cm x 13mm
G	Arm	2	15 5/8" x 3 3/4" x 1/2"	39.6cm x 9.5cm x 13mm
H	Top back support	1	9 1/2" x 1 7/8" x 1/2"	24.1cm x 4.5cm x 13mm
I	Center back slat	1	17 3/8" x 1 3/8" x 1/2"	44.1cm x 3.5cm x 13mm
J	Second back slat	2	17 1/4" x 1 3/8" x 1/2"	43.8cm x 3.5cm x 13mm
K	Third back slat	2	17" x 1 3/8" x 1/2"	43.2cm x 3.5cm x 13mm
L	Outer back slat	2	16" x 1 3/8" x 1/2"	40.6cm x 3.5cm x 13mm
M	Seat slat between legs	3	9" x 15/16" x 1/2"	22.7cm x 24mm x 13mm
N	Seat slats	6	9 1/2" x 15/16" x 1/2"	24.1cm x 24mm x 13mm
O	Back seat slat	1	9 1/2" x 1 13/16" x 1/2"	24.1cm x 4.6cm x 13mm

#### Instructions:

Cut out all templates, on the **INSIDE** of the lines shown, and trace or glue onto hardboard for permanent templates. Label all pieces. Trace all templates onto the final stock of pine or cedar, and cut each one out with a sabre, table, or band saw. A taper jig on the table saw, works best for the back slats and back supports E. A shop built sled is the quickest, easiest and safest taper jig. Use a scrap length of 6" (15.8cm) wide plywood, longer than the back slats, and fasten clamps at each end. Line up the pattern line to the edge of the jig, and run it through the blade.

For all back slats, cut to the rough dimensions of part I, the longest slat. Then trace on template I, and taper the one side for all parts I, J, K & L. The templates for J, K, & L can be traced onto the tapered stock, so all parts are the same width at the bottom. Only one template of each is necessary. Just flip each over for the opposite direction of the curve. Use whichever top pattern you choose from the templates. You can make the slats the same length as the original I, J, K & L, to give the same curved top appearance, or arrange to your taste.

Using a 3/16" (5mm) bit, drill the holes for the legs and back supports. If you have a jointer/planer, you may want to clean up all straight edges. Any curved surfaces should be sanded with a drum sander before rounding over all outside edges, with a router or sandpaper.

If you are painting the chair, it is best to prime all surfaces first before assembly, to ensure longer life against moisture. Use an oil based paint like Varathane Colours, for the final coat.

## Assembly:



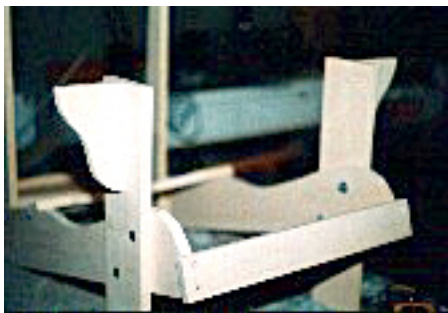
**1** - Begin assembly by pre-drilling and screwing the bottom back support, part B, to the slot in each part A, the side panels. Leave a 1/4" (6mm) overlap on each side. Use 1 screw on each side of part B. Next attach the front slat C, with 1 screw on each side, to the front edges of parts A, flush with the bottom edge, again with a 1/4" (6mm) overlap. This will give you a carcass to work with. Check for square by measuring corner to corner, both ways.



**2** - Next, bolt on the front legs D, on the **OUTSIDE** of parts A. Use washers on both sides. Tighten being sure the legs are parallel with each other. Be sure the bottoms of the side panels A, rest flat at the back.



**3** - Bolt on the back supports E, on the **INSIDE** of side panels A, again being sure they are parallel to each other, and square to the work surface.



**4** - With two screws, attach the arm supports F, centered flush with the top of the front legs D.



**5** - Screw the arms G in place, as they rest on the front leg supports. Double check to be sure the arms are parallel to the ground. Put 2 screws through the arms into front legs D, and 1 into supports F. They should overhang the front legs by 1/4" (6mm) , leaving about 8 1/2" (21.6cm) between the arms.



**6** - Draw a line at 9 3/4" (24.8cm) up from the bottom of the back supports E. Put 1 screw in from the inside of parts E, into the notch at the back of the arm. Check to be sure the arms are parallel to the work surface.



**7** - Screw on the upper back support H, centered on the tops of parts E, flush at the front.



**8** - The back pieces can now be assembled, starting with the middle slat I, centered at the top on part H, and at the bottom, in the curve on part B, overhanging 1/8" (3mm). Use one screw at the top and bottom of each slat, being sure not to set the screws too deep.





**9** - Next, screw on slats L, flush with the ends of part H, and the curve in B. Then screw on slats J and K, fanned evenly between I and L. You may want to pre-drill holes in each slat and put in place with a small nail temporarily, to balance the distance between slats, before screwing in place.



**10** - If you are using plugs to hide the screws, be sure to add them **NOW**, to the bottom of the back slats, and sand smooth.



**11** - Attach part O, the back seat slat. You may have to adjust the angles of the template pattern, to fit properly to the back slats. The sides should hang over by 1/8" (3mm) like parts C and A.



**12** - The seat slats can now be assembled and attached using one screw on each side. Cut out parts M and N to the sizes in the parts list. Evenly space all slats N, with 2 in front of the legs D, and 4 or 5 behind. The three slats M, are placed between the legs, and spaced to match the others.



**13** - The chair is now assembled, and ready for finishing. If you are plugging the screw holes, I recommend a tapered plug cutter, like the Veritas Cutter from Lee Valley Tools.

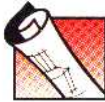


**14** - Glue the plugs in place with exterior waterproof glue, let dry, then cut off the excess with a chisel or Japanese saw. The rest can be sanded smooth with a random orbital sander. Touch up the plugs with primer, if painting the chair.

The chair is now assembled, and ready for finishing. Hopefully, it will be around for years to come, and used by the next generation of young ones.

**Enjoy!**

**Phil Barley**



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