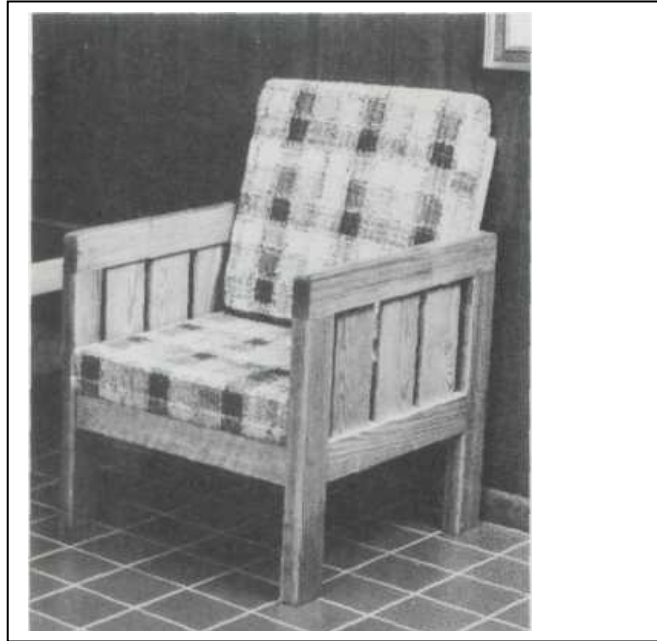


# *191*

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## ARMCHAIR



It's becoming more and more expensive these days to own good handcrafted furniture. This project enables you to make your own armchair at a fraction of the retail cost. What's more, you'll be sure of the craftsmanship and quality, because you made it yourself.

1. Cut the pieces to size according to the dimensions given. When ripping the back cleat (L) to width, cut a 16° bevel on the ripped edge. Also, cut tapers on the ends of the back supports (K) as shown.

2. Drill 1-3/8"-deep x 1"-wide x 2-1/4"-long mortises in the arms (A) and legs (B) as shown. Remove any excess stock with a hand chisel.

3. Use a router or hand chisel to make the 1/2"-deep x 3/8"-wide x 2-1/2"-long mortises in the edges of the back rails (G, H). Leave the corners round.

4. Mark the locations for cutting tenons in the ends of the side rails (C), front rail (E), and back rails. To mark, score the wood with a knife to prevent splintering.

5. Use a dado blade to cut the 1"-thick x 2-1/4"-wide x 1-1/4"-long tenons.

6. Drill dowel holes in the arms, side rails, side panels (D), and back stiles (F), and rails. Drill these holes 1" deep.

7. Round the side edges of the slats (J) with a router and rounding

over bit. This will enable them to fit the mortises in the back rails.

8. Sand all pieces smooth with 150-grit paper. Dry-assemble the arm chair to check for fit.

9. Assemble the side frames. Begin by fitting the side rails between the legs, then install the side panels and the arms. Use glue in all joints and clamp until dry.

10. Fit the slats between the top and bottom back rails. Fasten the rails to the stiles using glue and dowels. Clamp and set aside for the glue to dry.

11. Assemble the front rail and the side frames using glue in the mortise and tenon joints. Clamp the assembly, then immediately install the front (M) and side (N) cleats. Butt the side cleats against the back of the front rail and set them 1/16" to 1/8" below the upper edges of the side rails. Drill pilot holes counterbored at least 1/4" deep, then fasten the cleats to the frames using glue and #10 x 2-1/4" flathead wood screws. If you prefer, dry assemble the frames and rail while drilling pilot holes in the cleats and

frames, then remove the front rail while you install the side cleats. Glue the front rail in place after that.

12. Fit the back cleat in place against the tail ends of the side cleats, making their upper edges flush. Fasten the back cleat to the side cleats using #10 x 2-1/4" flathead wood screws set in pilot holes counterbored to a depth of at least 1/2".

13. Hold the back frame in position between the sides with its lower rail pressed firmly against the back cleat. Mark the side frames along the rear edge of the back. Remove the back frame and install the back supports using glue and #8x1-1/4" flathead wood screws, countersunk or slightly counterbored. Then fasten the back frame in place by running screws through its bottom rail into the back cleat and through the supports into its stiles.

14. Do all final sanding, then finish the chair frame as desired.

15. When the finish has dried, mount band irons to the cleats with

## LIST OF MATERIALS

(finished dimensions in inches)

<b>A</b> Arms (2)	1-1/2 x 3-1/4 x 26-1/2
<b>B</b> Legs (4)	1-1/2 x 3-1/4 x 24
<b>C</b> Side rails (2)	1-1/2 x 3-1/4 x 22-1/2
<b>D</b> Side panels (6)	1/2 x 5 x 10-1/4
<b>E</b> Front rail	1-1/2 x 3-1/4 x 24
<b>F</b> Back stiles (2)	3/4 x 3 x 24
<b>G</b> Back top rail	3/4 x 3 x 15-1/2
<b>H</b> Back bottom rail	3/4 x 3 x 15-1/2
<b>J</b> Slats (3)	3/8 x 2-1/2 x 19
<b>K</b> Back supports (2)	3/4 x 3/4 x 8
<b>L</b> Back cleat	1-1/4 x 2 x 21-1/2
<b>M</b> Front cleat	1-1/4 x 1-1/2 x 19
<b>N</b> Side cleats (2)	1-1/4 x 1-1/2 x 17-1/2
Dowels	1/4 dia. x 2
Dowels	3/8 dia. x 2
Flathead wood screws	#10 x 2-1/4
Flathead wood screws	#8 x 1-3/4
Flathead wood screws	#8 x 1-1/4
Panhead wood screws	#6 x 3/4
Tacks	
Dowel plugs or wood putty	
Band irons	
Rubber webbing	
Wood glue	

#6 x 3/4" panhead screws. Do not screw the irons tight against the cleats; leave a 1/16" gap to pull the rubber webbing through. 16. Mark the proper spacing of the rubber webbing strips. Starting on one side, pull one strip through, double the end over, and tack fast. Repeat for each strip.

17. Stretch the strips across to the other side, and feed the end between the iron and cleat. Pull tight, then double the ends over and tack. Repeat this procedure for stretching the strips from front to back. Remember to interweave the webbing as shown.

18. Buy or make cushions to fit the armchair.

