

PLATE No. 7

HALL TREES OR COSTUMERS

ARTICLE VII

How often has mamma told Johnny not to throw his coat and cap upon the chair when he enters the house? Now, mothers who are troubled in this way should induce the fond fathers to construct one of the hall trees as shown in plate 7. These are not only good for the boys to hang their wraps on but also for the rest of the family.

The first hall tree requires the following pieces:

One center pole— $1\frac{1}{2} \times 1\frac{1}{2} \times 66\frac{1}{2}$ inches.

Two cross pieces— $2\frac{1}{2} \times 2\frac{1}{2} \times 15\frac{1}{2}$ inches.

Four brackets— $1 \times 6 \times 10\frac{1}{2}$ inches.

Note: If a measurement for a board can be had at the mill as the drawing may call for, the mill order will specify the same accordingly; i. e., the pole can be received at the mill planed on four sides, one and one-half inches square. If not mill planed, al-

ways allow about one-half inch on length and thickness for waste.

1. The pole when finished is one and one-half inches square, by sixty-six inches in length.

2. The cross lap pieces, that serve as rests, when finished are two inches thick, two inches wide and fifteen inches in length.

3. Make a cross lap joint at their centers: two inches wide and one inch deep.

4. Make the one inch chamfers on the ends of cross pieces.

5. The four brackets when finished are 1 inch thick, $5\frac{1}{2}$ inches wide and 10 inches in length. First, square up the boards before attempting the curves.

6. Locate and bore the holes for the dowels on pole and brackets.

7. The brackets can also be fastened to the rests by means of dowels.

8. A dowel pin can be placed in the lower end of the pole and slipped through a

hole, the size of the diameter of dowel, in the center of both cross pieces.

For costumer No. 2 order the following pieces from the mill:

Two vertical poles— $1 \times 2\frac{1}{2} \times 66\frac{1}{2}$ inches.

One top rail— $\frac{3}{4} \times 3\frac{1}{2} \times 17$ inches.

One second rail— $\frac{3}{4} \times 2 \times 17$ inches.

One third rail— $\frac{3}{4} \times 2 \times 17$ inches.

One board— $1 \times 8\frac{1}{2} \times 17$ inches.

Four brackets, each— $1 \times 8 \times 10\frac{1}{2}$ inches.

Two rests (a)— $2 \times 2\frac{1}{2} \times 18\frac{1}{2}$ inches.

Three slats— $\frac{5}{8} \times 3\frac{1}{2} \times 43$ inches.

The brackets in design are like those shown in figure No. 1.

1. Make the long vertical poles $1 \times 2 \times 66$ inches.

2. Make the top slants on upper ends.

3. Square up the top rail: $\frac{3}{4}$ in. thick \times 3 inches wide, $16\frac{3}{4}$ inches long over all.

4. On the ends make the tenons: $\frac{3}{8}$ inches or longer, $\frac{3}{8}$ inches thick and about two inches wide.

5. Square up the second rail: $\frac{3}{4}$ inch

thick, $1\frac{1}{2}$ inches wide, and $16\frac{3}{4}$ inches long over all.

6. On the ends make the tenons $\frac{3}{8}$ inch or longer, $\frac{3}{8}$ inch thick and about $\frac{7}{8}$ inch wide.

7. Square up the third rail: $\frac{3}{4}$ inch thick, $1\frac{1}{2}$ inches wide, and $16\frac{3}{4}$ inches over all in length.

8. Make the tenons on the ends: $\frac{3}{8}$ inch long, $\frac{3}{8}$ inch thick and about $\frac{7}{8}$ inch wide.

9. Make the mortises on the inside of the poles to receive the tenons on the three rails respectively.

10. Square up the three slats: $\frac{5}{8}$ inch thick, 3 inches wide, and $42\frac{3}{4}$ inches long over all.

11. Make tenons on both ends: $\frac{3}{8}$ inch long, $\frac{3}{8}$ inch thick, and about two inches wide.

12. Remove the joint edges in accordance with the design on the slats.

13. Make the mortises on the second

and third rails to receive the tenons on the three slats respectively.

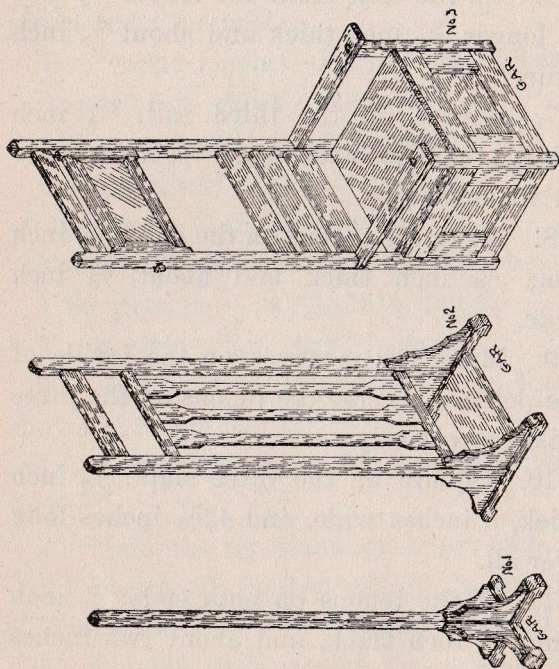


PLATE No. 7

14. Glue and fasten second and third rails onto slats.

15. Square up the two side pieces or

COSTUMERS

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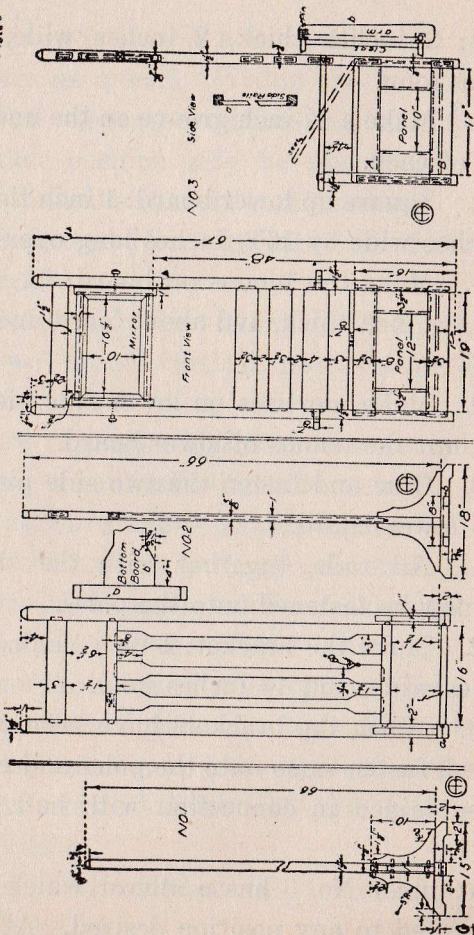


PLATE No. 7

rests: 2 inches thick, 2 inches wide, 18 inches long.

16. Make a $\frac{3}{4}$ -inch groove on the under-side of each.

17. Square up lower board: 1 inch thick, 8 inches wide by $16\frac{3}{4}$ inches long over all.

18. Make the tenons on board: $\frac{3}{8}$ inch long, $\frac{1}{2}$ inch thick, and about 5 or 6 inches wide.

19. Make mortises on lower side pieces to admit the tenons of lower board.

20. Glue and fasten the two side pieces onto lower board.

21. All rails, together with the slats, can now be fastened onto the poles.

22. Make the bracket: 1 inch thick, $7\frac{1}{2}$ inches wide, and 10 inches long.

23. When the brackets have been completed, fasten same onto the poles and rests as explained in connection with hall tree No. 1.

Costumer No. 3 has a mirror which can be turned to any position desired. At the

lower end there is a box with a lid which serves as a seat. Within the box may be placed rubbers, overshoes and the like. A leather cushion may be placed upon the seat to make it more comfortable.

Hall tree No. 3 requires the following pieces.

Two long poles— $1\frac{1}{2} \times 1\frac{1}{2} \times 67\frac{1}{2}$ inches.

Two front vertical posts— $1\frac{1}{2} \times 1\frac{1}{2} \times 23$ inches.

One top rail— $\frac{3}{4} \times 3 \times 20$ inches.

One second rail— $\frac{3}{4} \times 4 \times 20$ inches.

One third rail— $\frac{3}{4} \times 4 \times 20$ inches.

One fourth rail— $\frac{3}{4} \times 4\frac{1}{2} \times 20$ inches.

One front upper rail for framework seat— $\frac{3}{4} \times 4 \times 20$ inches.

One front lower rail— $\frac{3}{4} \times 4 \times 20$ inches.

One back upper rail— $\frac{3}{4} \times 4 \times 20$ inches.

One back lower rail— $\frac{3}{4} \times 4 \times 20$ inches.

One vertical front rail (left side)— $\frac{3}{4} \times 4 \times 9$ inches.

One vertical front rail (right side)— $\frac{3}{4} \times 4 \times 9$ inches.

One front panel— $\frac{1}{4} \times 9 \times 13$ inches.

One back panel— $\frac{1}{4} \times 9 \times 20$ inches.

Two side upper rails— $\frac{3}{4} \times 4 \times 18$ inches.

Two side lower rails— $\frac{3}{4} \times 4 \times 18$ inches.

Four vertical side rails (right and left sides)— $\frac{3}{4} \times 4 \times 9$ inches.

Two side panels (right and left sides)— $\frac{1}{4} \times 9 \times 11$ inches.

One bottom— $\frac{1}{2} \times 18 \times 20$ inches.

One seat— $\frac{7}{8} \times 20$ (wide) $\times 20$ inches long.

Make the width from two boards.

Two arms— $\frac{7}{8} \times 3\frac{1}{2} \times 21$ inches.

Two cleats— $\frac{7}{8} \times \frac{7}{8} \times 18$ inches.

Two horizontal rails (for frame of mirror)— $\frac{7}{8} \times 1\frac{1}{2} \times 17\frac{3}{4}$ inches.

Two vertical rails (for mirror)— $\frac{7}{8} \times 1\frac{1}{2} \times 13\frac{1}{2}$ inches.

Follow carefully each step in constructing hall tree No. 3.

1. Square up long poles: $1\frac{1}{2} \times 1\frac{1}{2} \times 67$ inches.

2. Make bevel on upper end.

3. Square up upper rail first: $\frac{3}{4} \times 2\frac{1}{2} \times$

19 $\frac{3}{4}$ inches over all. Make tenons $\frac{3}{8}$ inch long and $\frac{3}{8}$ inch thick on all rails, $\frac{3}{4}$ inch in thickness.

4. Square up second rail: $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all.

5. Square up third rail: $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all.

6. Square up fourth rail: $\frac{3}{4} \times 4 \times 19\frac{3}{4}$ inches over all.

7. Square up upper back rail (below seat): $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all.

8. Square up lower back rail: $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all.

9. Make mortises on long vertical poles (inside) to admit all the above rails.

10. Square up front vertical posts: $1\frac{1}{2} \times 1\frac{1}{2} \times 22\frac{1}{2}$ inches over all.

11. Square up upper front horizontal rail (below seat): $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all.

12. Square up lower front horizontal rail: $\frac{3}{4} \times 3\frac{1}{2} \times 19\frac{3}{4}$ inches over all. Make tenons on rails.

13. Make mortises on front posts for upper and lower front rails.

14. Square up two front vertical rails: $\frac{3}{4} \times 3\frac{1}{2} \times 8\frac{3}{4}$ inches over all. Make tenons.

15. Make mortises on upper and lower front horizontal rails for the above two vertical rails.

16. Glue and clamp the above rails (four) together.

17. Make inside groove for front panel.

18. Square up front panel: $\frac{1}{4} \times 8\frac{3}{4} \times 12\frac{3}{4}$ inches and fasten in place.

19. Square up the two upper side rails: $\frac{3}{4} \times 3\frac{1}{2} \times 17\frac{3}{4}$ inches over all.

20. Square up the two lower side rails: $\frac{3}{4} \times 3\frac{1}{2} \times 17\frac{3}{4}$ inches over all.

21. Make tenons on the above rails and mortises for same on long poles and from vertical posts.

22. Square up the four side vertical rails: $\frac{3}{4} \times 3\frac{1}{2} \times 8\frac{3}{4}$ inches over all.

23. Make all tenons on the above ver-

tical rails and mortises for same on upper and lower side rails.

24. Make the grooves for the panels.

25. Square up the panel boards: $\frac{1}{4} \times 8\frac{3}{4} \times 10\frac{3}{4}$ inches.

26. Glue all rails and clamp in place until dry.

27. Square up the seat: $\frac{7}{8} \times 19\frac{3}{4} \times 19$ inches.

28. Square up two cleats: $\frac{7}{8} \times \frac{7}{8} \times 17\frac{3}{4}$ inches, to fit immediately below the seat and on the inside of the two upper side rails.

29. Square up the two arms, each $\frac{7}{8} \times 3 \times 21\frac{1}{2}$ inches. The arms are three inches wide at the front end and two inches wide at the rear end.

30. Make small squares on arms to fit over front posts. Make rear opening on arms to fit on long poles. See sketch "b."

31. Square up upper and lower rails for frame of mirror: $\frac{7}{8} \times 1 \times 17\frac{1}{4}$ inches over all. Make tenons.

32. Square up the vertical rails: $\frac{7}{8} \times 1 \times 13$ inches. Make mortises.

33. Make grooves for mirror and glue frame together.

34. Sandpaper and clean all parts before finishing.

35. Screw mirror in place. Perspective No. 3 shows the panel pieces placed inside.

In almost every case, the joints used in fastening the various parts of the three hall trees are some variation of the mortise and tenon joint.

The tenons used on the horizontal rails of the frame for the mirror, are the common or stub mortise and tenon and are made by cutting only two sides of tenon beam.

The horizontal side rails A and B below seat in figure No. 3 are made with tenons like those on an end lap joint. The end lap fits into the posts. See sketches "a" and "b."

Note how the rear of the arm pieces are

cut to fit the long poles in detail drawing
“b.”

The panels fit within a groove.

The cleats are screwed in place.

Five Hints to Amateurs

1. In sandpapering straight surfaces, a block of wood should be used upon the sandpaper.

2. In striking a chisel a mallet should be used. If the chisel is kept keen, there will be no necessity for the use of a mallet for small cuts.

3. Give your work a final treatment from a critical standpoint before sandpapering or assembling.

4. Do not depend upon sandpaper doing the work. Use it for cleaning only and smoothing surfaces after all tool processes have been completed.

5. Do not trace any work.

A bad man quarrels with his tools.