

Project 12325EZ: Captain's Clock

This handsome timepiece, resembling the mariner's clocks often found in the Captain's quarters of old-time ships, will add a salty flavor to any room in the house. Ours is made from oak, but cherry or mahogany will also be appropriate choices.

Captain's Clock Step-by-Step Instructions

1. Select a 4' length of stock to cut the clock case.
2. Set the table saw to 30 degrees (see **Figure 1**).
3. Locate the rip fence to make a 4-5/8" wide cut.
4. Rip a bevel on one edge.
5. Relocate the fence to make a 4" wide cut.
6. Place the beveled edge now against the fence.
7. Rip a bevel on the opposite edge.
8. Set the table saw blade and miter gauge to 90 degrees (see **Figure 2**).
9. Crosscut the stock into eight pieces, each one 6" long.
10. Apply a thin coat of glue to each of the beveled edges (see **Figure 3**).
11. Assemble and clamp all eight pieces with a pair of web clamps.
12. Make sure that one end of the blank is flat in order to attach a face plate.
13. Use the table saw miter gauge to make one trimming cut (see **Figure 4**).



Figure 1

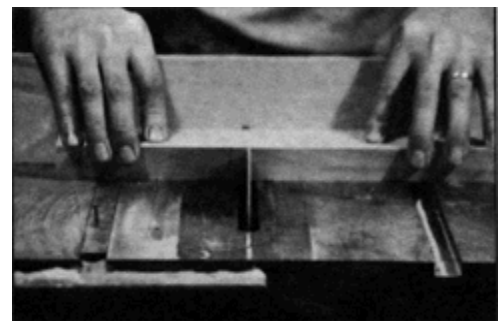


Figure 2

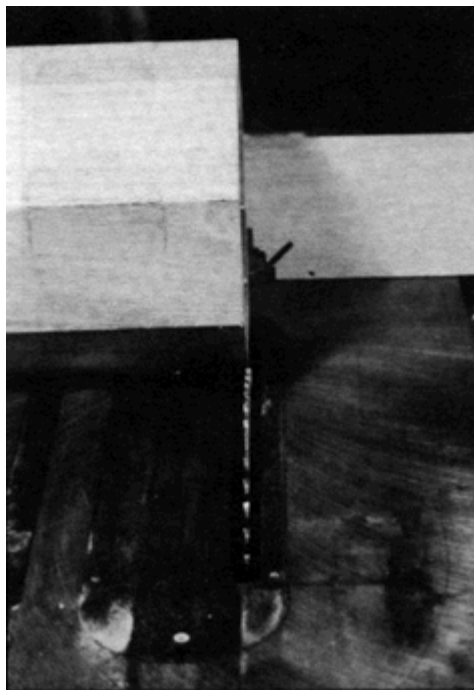


Figure 4

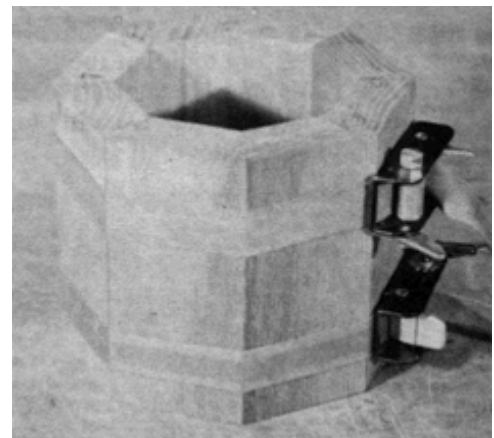


Figure 3

14. Turn the blank and make a second cut flush with the first.
15. Continue this for all eight sides of the blank.
16. Sand the trimmed end on a sanding board — made simply by gluing a piece of 1/2" to 3/4" thick particleboard or birch plywood — to insure a flat surface.
17. Cut a 3/4" thick pine face plate block to size.
18. Glue and clamp it to the flat end of the blank (see **Figure 5**).
19. Allow the piece to dry for four hours.
20. Remove the clamps.
21. Trim the face plate block flush with the blank.
22. Locate the centerpoint of the block.
23. Attach a 4" to 6" diameter face plate with 3/8" long by #10 flat head wood screws.
24. Attach the face plate to the lathe (see **Figure 6**).
25. Locate the tool rest about 1" below the center line of the blank.
26. Set the lathe to its lowest speed.
27. Use a 1" gouge to round the outside of the blank (about 6-7/8" diameter; see **Figure 7**).
28. Use a pencil and, while the lathe is spinning, mark a line at a point 7/8" from the inside edge of the face plate block.
29. Mark a line 4" from the inside edge of the face plate block.
30. Use a parting tool or skew to cut into the blank at the first pencil line (see **Figure 8**).
31. Use a flat nose or skew chisel to reduce the diameter between the two pencil marks to 6-3/8" (see **Figure 9**).

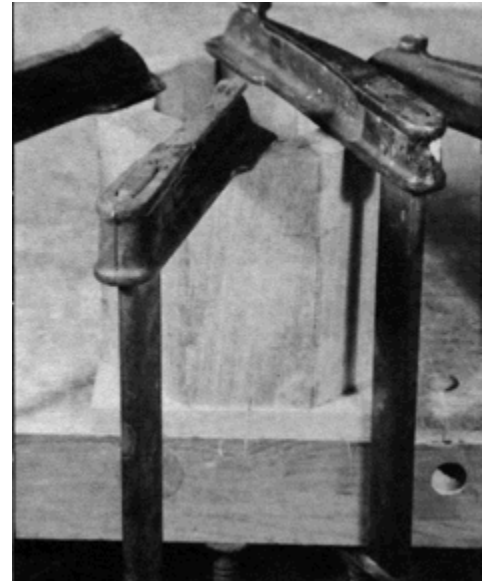


Figure 5

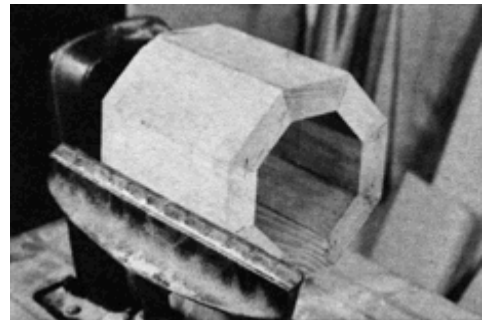


Figure 6



Figure 7



Figure 8

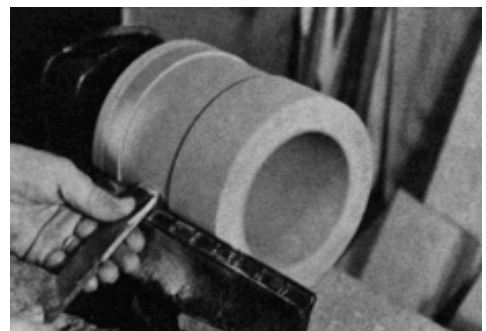


Figure 9

32. Try to increase the angle of the tool so that it cuts rather than scrapes the stock.
33. Use a flat nose or skew chisel to shape the convolutions on each end as shown (see **Figure 10**).
34. Position the tool rest inside the clock and just below the center line.
35. Start at the end and use a round nose chisel to turn the inside diameter of the blank to 5-1/4" for a distance of 2" (see **Figure 11**).

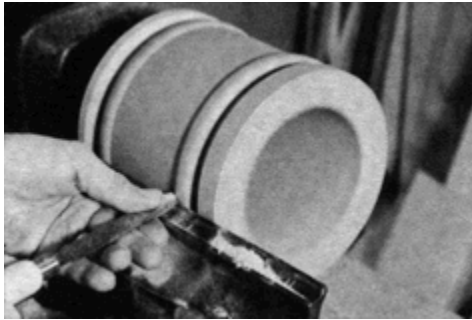


Figure 10



Figure 11

36. Position the tool rest to the outside of the blank and square the end (see **Figure 12**).
37. Reduce the end of the clock to a 6" diameter, cutting to within 1/8" of the convolution.
38. Use a parting tool to cut the two 3/8" wide rings as shown.
39. Cut to a depth of 5/16", leaving 1/16" to be cut by hand with a dovetail saw.
40. Use the dovetail saw to remove the two rings (see **Figure 13**).

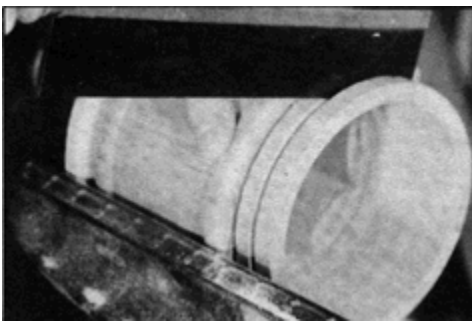


Figure 12

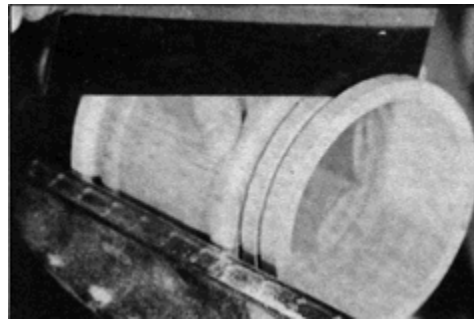


Figure 13

41. Position the tool rest inside the blank (see **Figure 14**).
42. Use a round nose chisel to turn the piece round.
43. Chip away the inside diameter of the clock.
44. Use a skew or square-nose chisel to reduce the blank to the final diameters as shown.

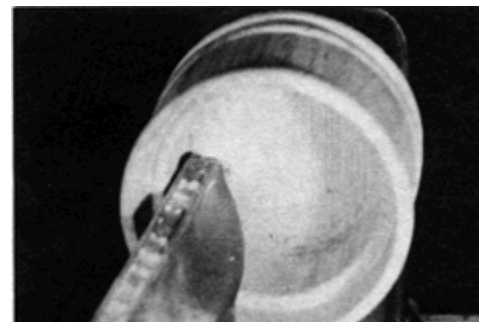


Figure 14

45. Use one of the rings cut from the blank as a bezel ring as shown (see **Figure 15**).
46. Check this ring for a snug fit in the blank.
47. Sand the blank and/or ring to get a snug fit.
48. Give the entire clock a thorough sanding.
49. Position the tool rest to the outside of the clock.
50. Use a parting tool to begin parting the blank.
51. **DO NOT** part completely. Instead, leave about 1/8".
52. Use a dovetail saw to cut off the remaining 1/8".
53. Remove the blank from the lathe.
54. Use a router equipped with a 1/4" rounding-over bit to cut the 1/8" deep step in the front.
55. Sand any rough areas created by the router bit.
56. Cut the second ring into two short segments (parts B) to use as cleats to join part G to part A.
57. Locate parts B off center in order to allow the glass, bezel ring and dial plate to be tilted as they are removed (see **Figure 16**).
58. Drill pilot holes in the bezel ring to join the dial plate to the bezel ring with three screws.
59. Join the dial plate to the bezel ring with three screws (see **Figure 17**).
60. Add the movements (part F).
61. Assemble the 1/8" thick glass, bezel ring, dial plate, and movement (see **Figure 18**).
63. Cut a piece of 1/4" plywood to fit snugly in the back (see **Figure 19**).

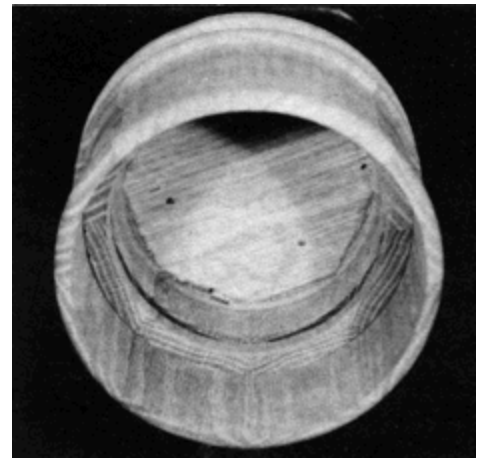


Figure 15

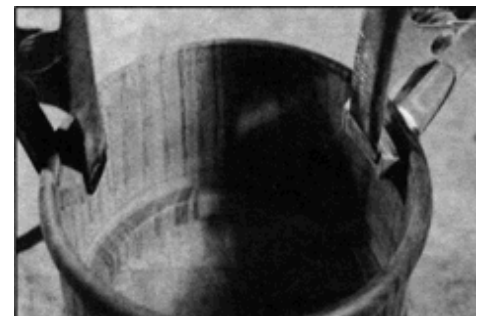


Figure 16

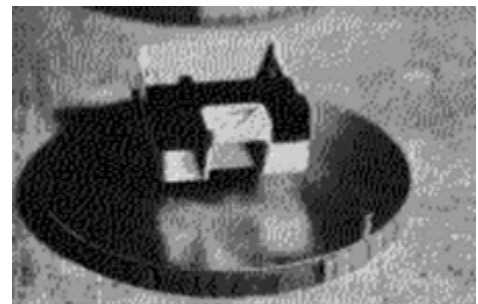


Figure 17

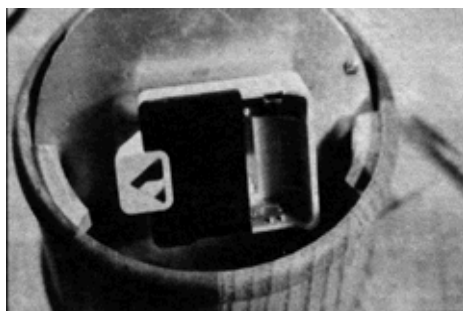


Figure 18

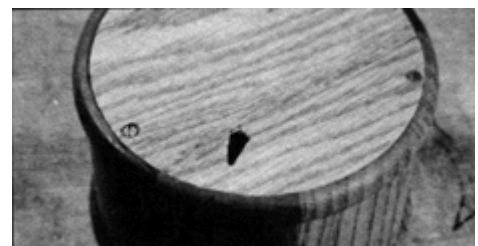


Figure 19

64. Secure the back to the case with a pair of screws threaded into pre-drilled holes in the cleats.
65. Disassemble all components.
66. Finish the wooden parts with several coats of a good penetrating oil.
67. Use glue and reassemble to complete.

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