Project 13586EZ: Writing Desk

This writing desk will make a handsome addition to just about any room in the house. The one shown is made of cherry, a logical choice for a piece like this, but mahogany or walnut will also look good.

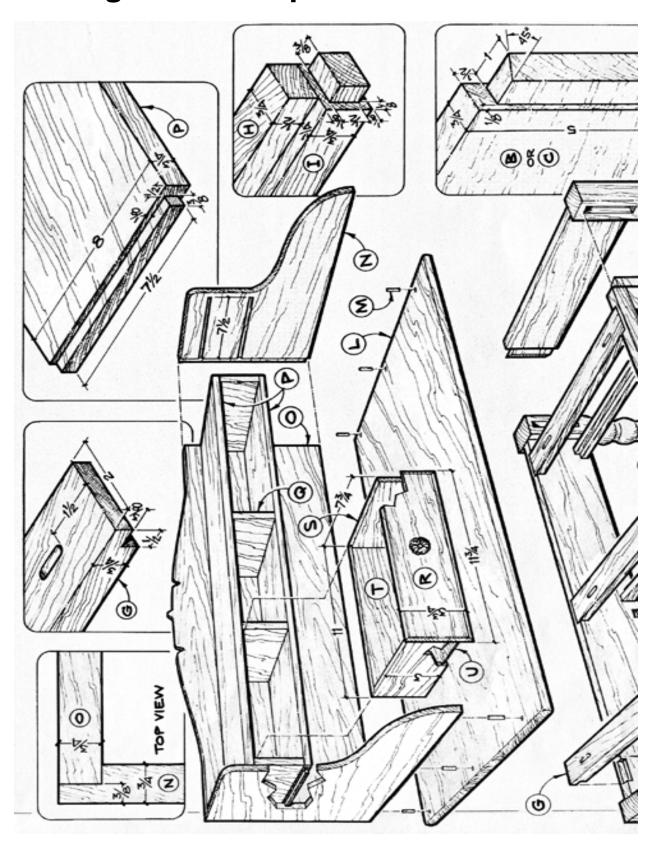


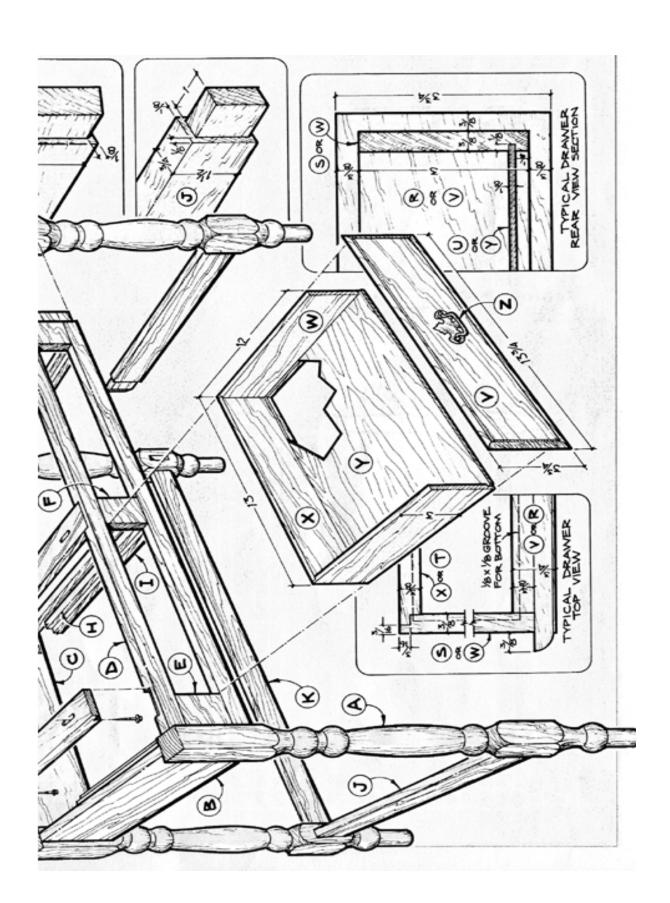
Writing Desk Materials List

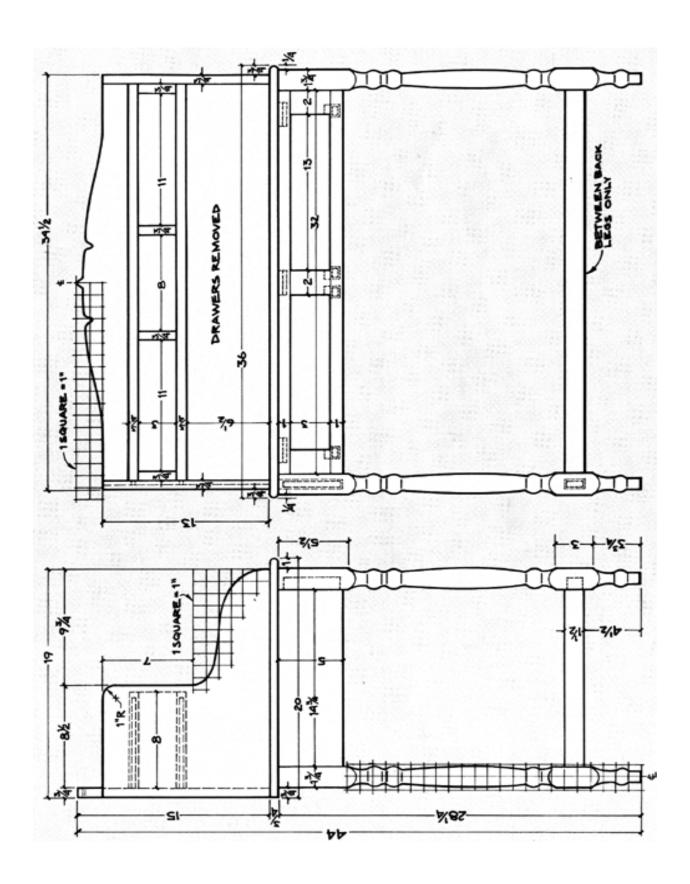
Part	Description	Size	No. Req'd
Α	Leg	1-3/4" x 1-3/4" x 28-1/4"	4
В	Side Apron	3/4" x 5" x 16-3/4"*	2
С	Back Apron	3/4" x 5" x 34"*	1
D	Drawer Frame	3/4" x 1" x 34"*	2
Е	Outside Spacer	3/4" x 3" x 3"	2
F	Inside Spacer	3/4" x 3" x 2"	1
G	Cleats	3/4" x 2" x 16-3/4"	3
Н	Drawer Guide	1/2" x 3/4" x 15-3/4"	4
1	Drawer Runner	3/4" x 1" x 16-1/2"*	4
J	Side Stretcher	3/4" x 1-1/2 x 16-3/4"*	2
K	Back Stretcher	3/4" x 1-1/2" x 34"*	1
L	Тор	3/4" x 20" x 36"	1
M	Pins	3/8" dia. x 1-1/2" long	6
N	End	3/4" x 13" x 19"	2
0	Back	3/4" x 15" x 33-1/4"	1
Р	Shelf	3/4" x 8" x 33-3/4"	2
Q	Divider	3/4" x 8" x 3"	4
R	Top Drawer Front	3/4" x 3-3/4" x 11-3/4"	2
S	Top Drawer Side	3/8" x 3" x 7-3/4"	4
T	Top Drawer Back	3/8" x 3" x 10-5/8"	2
U	Top Drawer Bottom	1/8" x 7-1/4' x 10-1/2"	2
V	Bottom Drawer Front	3/4" x 3-3/4" x 13-3/4"	2
W	Bottom Drawer Side	3/8" x 3" x 12"	4
X	Bottom Drawer Back	3/8" x 3" x 12-5/8"	2
Υ	Bottom Drawer Bottom	1/8" x 11-1/2" x 12-1/2"	2
Z	Bottom Drawer Pull		2

^{*} Including Tenons

Writing Desk Complete Schematic







Writing Desk Step-by-Step Instructions

- 1. Cut 1-3/4" square stock to a length of about 30" to begin making the legs (A).
- 2. Lathe-turn each leg to the profile shown in the drawing, and sand each leg with 220-grit sandpaper before removing from the lathe.
- 3. Trim each leg to a final length of 28-1/4".
- 4. Lay out and mark the location of the various mortises centered along the 1-3/4" leg width. NOTE: The top mortises measure 1/2" wide x 4-3/8" long x 1" deep while the bottom mortises measure 1/2' wide x 1-1/4" long x 1" deep.
- 5. Use a 1/2" diameter drill bit and, being sure to keep the bit square to the edge, drill a series of holes to remove the waste stock from each mortise.
- 6. Use a chisel to clean up the remaining waste stock.
- 7. Cut the two side aprons (B) and the back apron (C) to length and width.
- 8. Lay out and mark each tenon on the aprons carefully.
- 9. Equip the table saw with a dado-head cutter.
- 10. Raise the dado-head cutter to a height of 1/8.
- 11. Use the miter gauge and, with the 5" wide side down, pass the stock over the cutter to establish the 1" tenon length.
- 12. Make a second pass to clean up the remaining material.
- 13. Flip the stock over and repeat the process on the other side.
- 14. Check for a good fit-up on the leg mortise.
- 15. Cut the 1/8" step on the bottom edge.
- 16. Raise the cutter height to 1/2' to cut the 1/2" step on the top edge.
- 17. Select 3/4" stock to begin making parts D, E, and F for the lower drawer opening.
- 18. Cut parts D to 1" wide x 35" long.
- 19. Cut parts E to 3" wide x 3-1/2" long.
- 20. Cut part F to 3" wide x 2" long.
- 21. Edge-glue part F at the centerpoint (measured along the length) of part D.
- 22. Allow the glue to dry.
- 23. Measure 13" in each direction (see drawing).
- 24. Edge-glue parts E in place.
- 25. Allow the glue to dry.
- 26. Trim each part E to 3" long, resulting in an overall length of 34" for parts D.
- 27. Cut the tenon on each end using the same procedure used to cut parts B and C.

- 28. Select 3/4" thick x 1-1/2" wide stock to begin making the two side stretchers (J) and the back stretcher (K).
- 29. Cut part J to 16-3/4" long.
- 30. Cut part K to 34" long.
- 31. Set the dado-head cutter to 1/8".
- 32. Cut the tenons on parts J and K.
- 33. Use a sharp chisel to cut the mortises for the drawer runners (parts I) in part C and the lower part D. **NOTE: A total of eight mortises are required.**
- 34. Cut parts I to size and cut the tenons on each end.
- 35. Rip 3/4" thick stock to a width of 2" to begin making the cleats (G).
- 36. Cut the cleat stock to a length of 16-1/2".
- 37. Use the dado-head cutter to cut the 3/8" deep x 1/2" wide notch on each end.
- 38. Thoroughly sand parts A, B, C, D-E-F, G, I, J, and K, finishing with 220-grit sandpaper.
- 39. Begin assembly by joining parts B and J to parts A apply glue to each mortise and tenon, join, and clamp with pipe clamps and clamp pads to protect the stock.
- 40. Check for squareness as soon as you tighten the clamps and make adjustments as necessary.
- 41. Join parts C, I, D-E-F, and K to A-B-J using the same gluing and clamping procedure.
- 42. Allow the glue to dry.
- 43. Clamp the drawer guides (H) in place as shown.
- 44. Place parts G in their proper position.
- 45. Use a sharp pencil to scribe the location of the 3/8" x 1/2" notch to be cut in part C and the upper part D.
- 46. Use a sharp chisel to chop out the notches.
- 47. Glue and clamp the parts in place.
- 48. Bore elongated screw holes as shown.
- 49. Edge-join two or more narrower boards, allowing extra stock on both the length and width, to get the width needed to make the top (L), the ends (N), and the back (O).
- 50. Trim parts L, N, and O to their final width and length dimensions.
- 51. Set the dado-head cutter to a height of 3/8" to begin making the 3/8" deep x 3/4" wide rabbet along the back edge of part N to accept part O.
- 52. Use the table saw miter gauge to hold part N as you pass it through the cutter.

- 53. Clamp an edge guide to part N to begin making the two 3/8" deep x 3/8" wide stopped dadoes in part N to take the shelves (P).
- 54. Equip the router with a 3/8" diameter straight bit set to make a 1/8" deep cut.
- 55. Hold the router against the edge guide and cut a 7-1/2" long stopped groove (see drawing).
- 56. Make two more passes, with each one making a 1/8" deep cut, to complete dado.
- 57. Transfer the profiles for parts N and O from the drawing grid pattern to the stock.
- 58. Use a band or saber saw and, staying slightly on the waste side, cut out the profiles.
- 59. Sand the stock to the profile lines.
- 60. Cut part P to length and width.
- 61. Cut the tenon on each end of part P as shown.
- 62. Check for a good fit in the stopped dado and make adjustments as necessary.
- 63. Cut parts Q to length and width.
- 64. Final sand parts N, O, P, and Q.
- 65. Assemble with glue and clamps as shown. **NOTE: Part Q is simply a glued butt joint.**
- 66. Cut slotted holes in part G to accommodate the screws that will hold the top in place.
- 67. Use round headed wood screws with washers driven up through parts G to attach the top (L).
- 68. Secure parts N to part L with 3/8" dowel pins as shown.
- 69. Make the drawers according to standard drawer construction techniques.
- 70. Give the entire project a complete sanding.
- 71. Apply two coats of polyurethane for a durable final finish.

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