



Project 20261EZ: Router Bit Box

Organize all your router bits and accessories in this handy storage case. There's room for up to 135 bits, plus space underneath for storing your edge-guide, router wrenches, guide bushings, and most any other accessories.

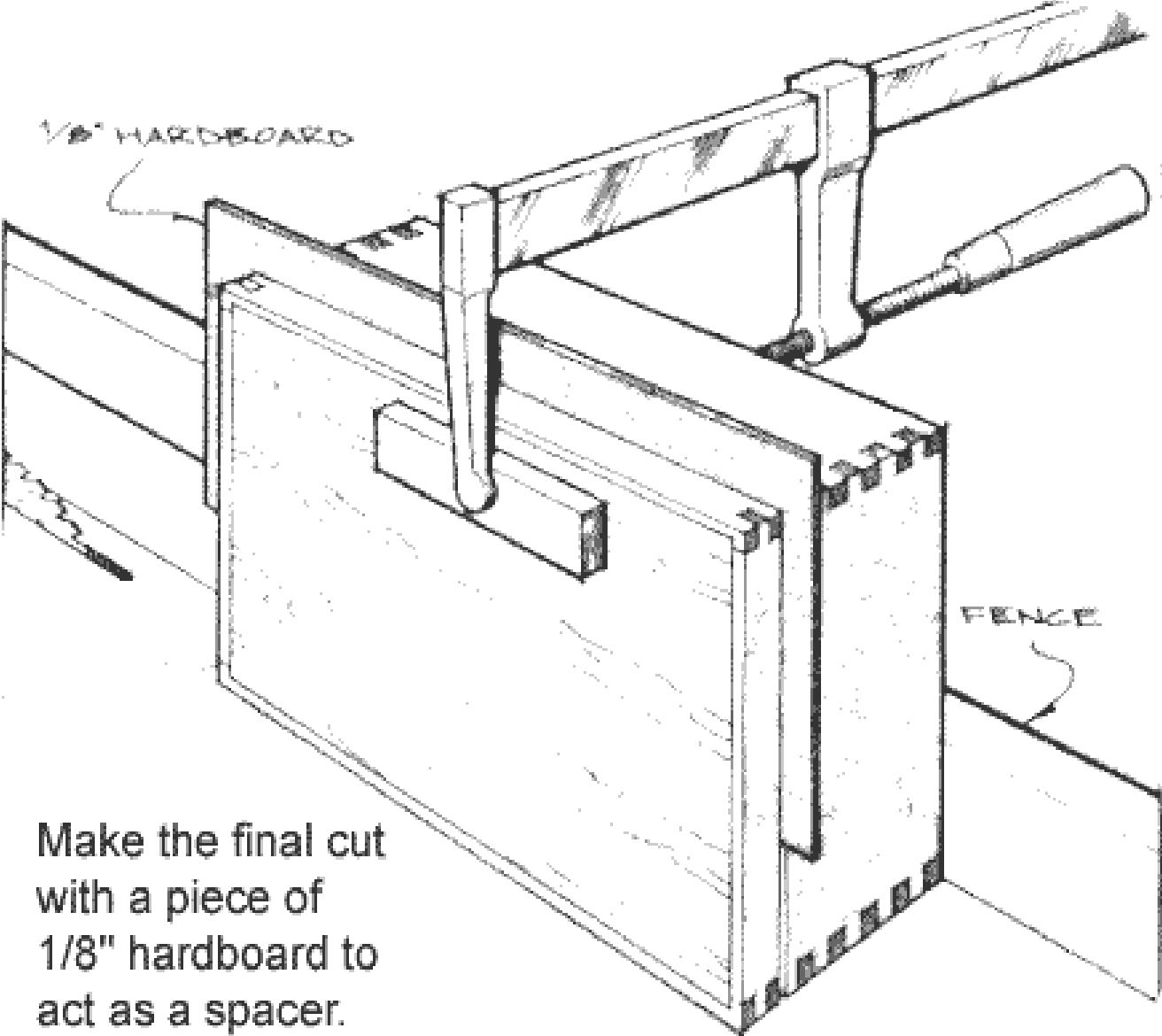
We show holes bored for 1/4" x 1/2" shanks, but the diameters can be changed to suit your particular needs.

The finger joints create a strong, attractive case, but a simple butt or rabbeted joint can be substituted if desired. Except for the birch plywood, we used cherry for all parts, although other kinds of wood, even pine, are acceptable.

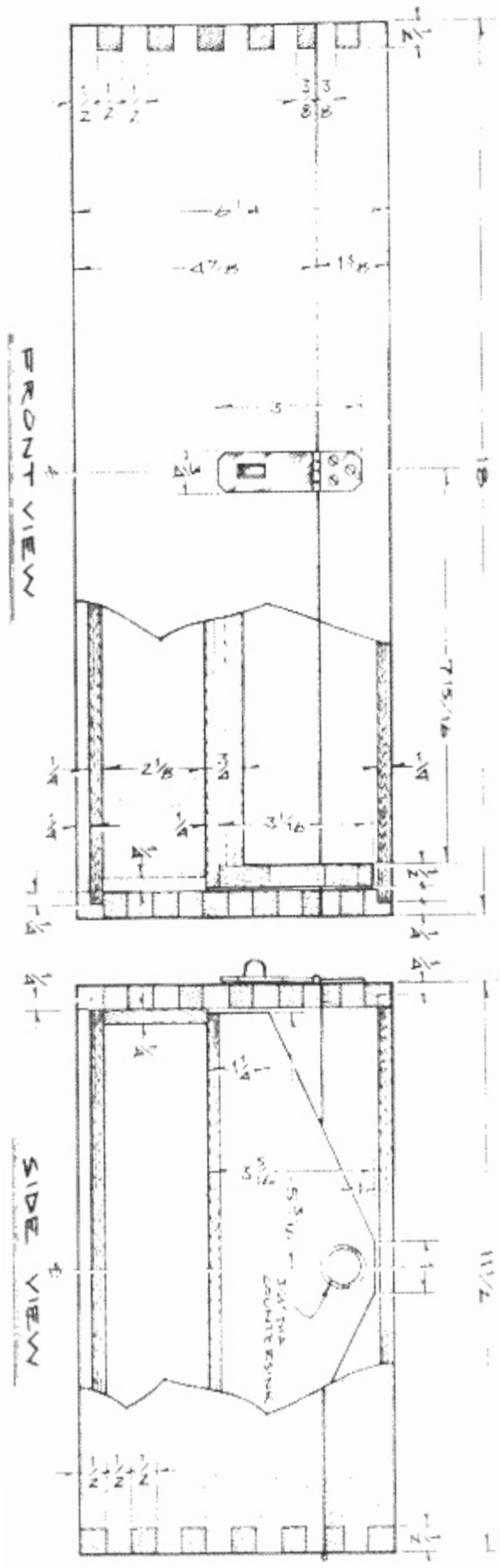
Router Bit Box Materials List

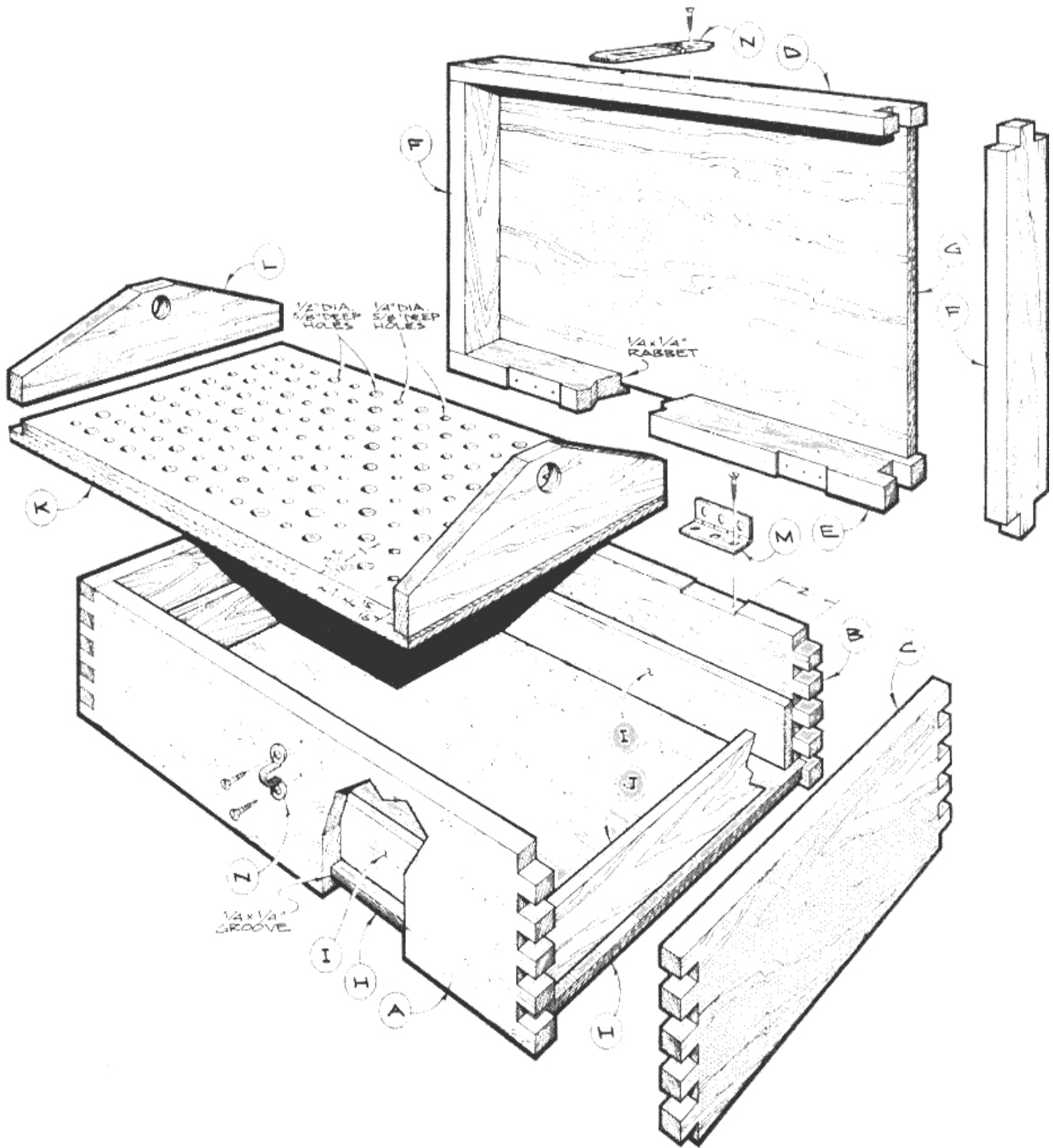
Part	Description	Size	No. Req'd
A	Case Front	1/4" x 4-7/8" x 18"	1
B	Case Back	1/2" x 4-7/8" x 18"	1
C	Case Side	1/2" x 4-7/8" x 11-1/2"	2
D	Lid Front	1/2" x 1-3/8" x 18"	1
E	Lid Back	1/2" x 1-3/8" x 18"	1
F	Lid Side	1/2" x 1-3/8" x 11-1/2"	2
G	Top	1/4" x 11" x 17-1/2"	1
H	Bottom	1/4" x 11" x 17-1/2"	1
I	Front/Back Spacer	1/4" x 2-1/8" x 17"	2
J	Side Spacer	1/4" x 2-1/8" x 10"	2
K	Holder	3/4" x 10-3/8" x 16-7/8"	1
L	Holder Handle	1/2" x 3-1/16" x 10-3/8"	2
M	Hinge	1" x 2"	2
N	Hasp	3/4" x 3"	1

Router Bit Box Complete Schematic



Make the final cut with a piece of 1/8" hardboard to act as a spacer.





Router Bit Box Step-by-Step Instructions

1. Select a piece of 1/2" thick stock that measures 6-3/8" wide x 60" long from which to make the box frame parts (A, B, C, D, E, and F).
2. Crosscut the stock into two pieces, each 18" long and two pieces of 11-1/2" long.
3. Use the router to cut a 1/4" x 1/4" groove in each piece to accept the bottom (H).
NOTE: On the 18" lengths, this groove must be stopped at a point 1/4" from the end.
4. Use a hand chisel to square the rounded corners at the ends of the grooves.
NOTE: On the 11-1/2 lengths that the groove is not stopped, but rather it is cut along the entire length of the stock.
5. Use the router again to cut the 1/4" rabbet along the top edge of each piece to accept the top (G). **NOTE: Like the groove, the rabbet must be stopped 1/4" from each end, while the rabbet on the 11-1/2" stock is cut along the entire length of the stock.**
6. Use a finger joint jig in conjunction with a dado head cutter to cut the finger joints on each end.
7. Select a piece of 1/4" thick birch plywood from which to cut the bottom (H).
8. Cut the bottom, making sure the corners are square.
9. Dry assemble the four frame parts and make adjustments as necessary.
10. Apply a thin coat of paste wax to the inside corners of the frame.
11. Disassemble the dry fit-up.
12. Apply a thin coat of glue to the fingers and to the edges of the plywood.
13. Clamp firmly to insure a good glue bond.
14. Check for squareness.
15. Set aside to dry overnight.
16. Remove the clamps.
17. Measure the opening for the 1/4" thick birch plywood top (G). **NOTE: This MUST be an exact fit, so take the measurements with care.**
18. Make adjustments to the top as necessary.
19. Apply glue to the rabbet.
20. Assemble the top to the frame.
21. Use clamps to apply pressure.
22. Set aside to dry.
23. Raise the table saw blade to a height of 5/8".
24. Locate the rip fence 4-7/8" from the blade.
25. Place one of the 11-1/2" long sides of the frame on the table.

26. Run the frame through the table saw blade to make the first cut needed for cutting the frame around its perimeter, thus creating the case (parts A, B, C, and H) and the lid (parts D, E, F, and G).
 27. Flip the box so that the other 11-1/2" long side is face down on the table saw.
 28. Repeat the cut.
 29. Place an 18" long surface on the table to make the third cut.
 30. Insert a piece of 1/8" thick hardboard between the saw kerf and place the other 18" long surface on the table.
 31. Use a clamp to hold the hardboard in place and make fourth and final cut. **NOTE: The hardboard will keep the kerf from closing up and binding on the blade.**
 32. Locate the fence for the cuts that will remove the top from the case, making sure that the saw blade will cut a kerf that is centered on the glue line between the third and fourth finger joints (from the top edge).
 33. Sand these finger joints to achieve about a 3/8" thickness.
 34. Cut the front, back, and side spacers (I and J) to size.
 35. Glue the spacers in place, using the glue sparingly to avoid squeeze out along the top edge.
 36. Select a piece of 3/4" thick birch plywood from which to make the holder (K).
 37. Cut the holder to length and width.
 38. Use a 17/64" diameter twist drill bit to make the holes for 1/4" shank router bits.
 39. Glue the holder handle (L) in place to the 1/2" x 1/2" rabbet cut in the ends of the holder.
 40. Final sand.
 41. Add the hinges (M) and the hasp (N).
 42. Use a 1/4" diameter wooden peg to keep the lid closed, or add a padlock if desired.
 43. Apply two coats of polyurethane varnish to finish.
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