

Building a hideaway workbench

By *Ted Herman*

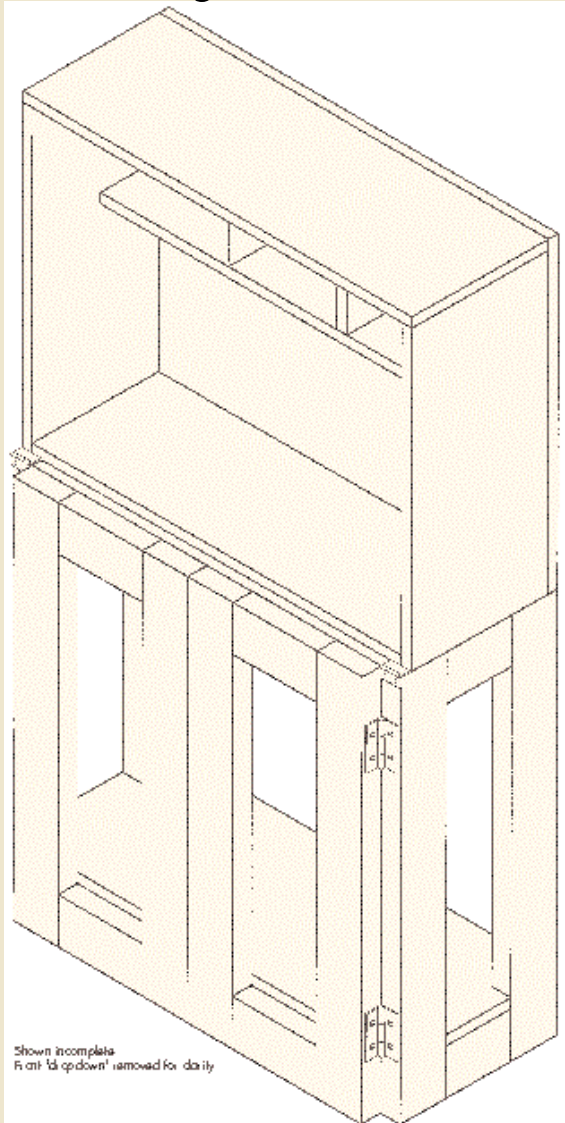
If you've ever found space at a premium for modeling, perhaps I have a solution to your dilemma. I've had some cramped quarters in my time, so I put my thinking cap on to find workspace where there wasn't any. I came up with what I call "The Hideaway Workbench," or "The Murphy Bench for the Living Space Impaired."

Cut and paste. The design is flexible. As long as you follow the formulas here, you can easily modify the overall dimensions to accommodate your particular needs. To build the bench as shown, you'll need the better part of a 4' x 8' sheet of plywood (Grade B or better).

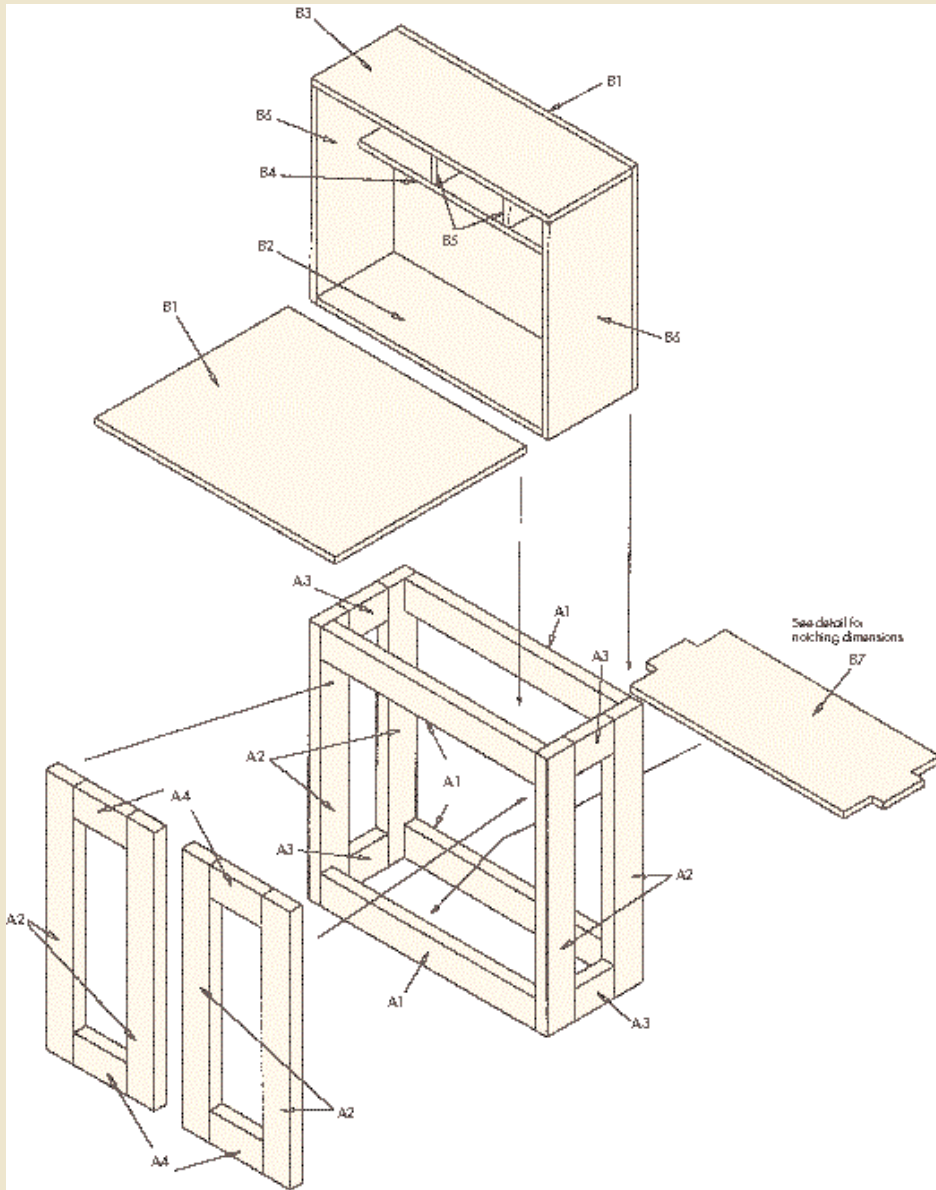
Feel confident to cut out all the pieces shown in the plans for a trouble-free assembly. This enables you to use a table saw, band saw, and various other wood shop tools of a friend if you do not own them yourself. Just follow the cutting list for the plywood and the dimensional lumber. Lightly mark each piece with an identifying mark (for example: B1/Top cabinet, etc.) so that when you are assembling the unit you can easily note what part of the structure you're handling.

At this point you'll have a large pile of lumber to be assembled. All joints are simple butt joints that are glued (use carpenter's glue for the best bonds), then screwed together. I found that this gives you more than enough strength and durability. For those with the time and the know-how, mortised or rabbet joints could be implemented, although this would cause a reconfiguring of the given dimensions and formulas.

Assembly required. Start by assembling the base frame. Be sure to pre-drill and countersink the holes for the 3" No. 10 wood screws. Drill to a depth of 1" minimum at joints where you are drilling through 3" of wood. Otherwise a ½" countersink is sufficient. You can mark your drill bit with masking tape at the proper depth to make this process easier. I recommend that all joints be glued, with two screws added at each joint. Once complete, you can attach the base's bottom with 1½" No. 8 wood screws.



Shown incomplete
Front 'fold up/down' removed for clarity



Cutting List

*All dimensions given in inches

Component A: 96"×2 by 4 dimensional lumber 3 needed

Component B: 48 x 96-1/4-inch plywood (grade B or better) 1 needed

Component C: 48 x 96-1/4-inch Masonite or plywood 1 needed

Lower cabinet/stand (Component A)

Piece No.	Size	Quantity
1	27"	4
2	30"	8
3	5"	4
4	6.5"	4

Upper cabinet (Component B)

Piece No.	Size	Quantity
1	24" x 30"	2
2	10.5" x 28.5"	1
3	10.5" x 30"	2
4	5.25" x 28.5"	1
5	8.25" x 5.25"	1

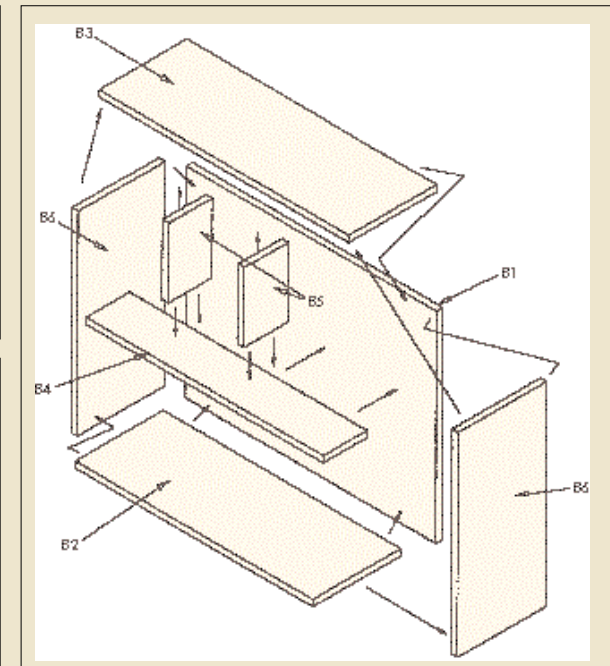
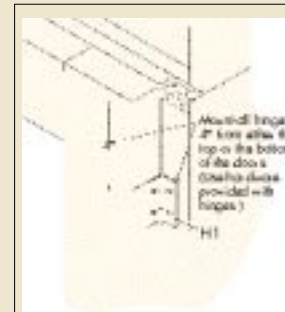
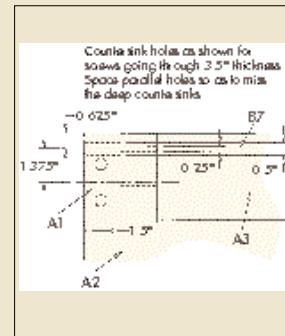
Covers/ fascia for door and base (Component C) (Not shown in illustrations)

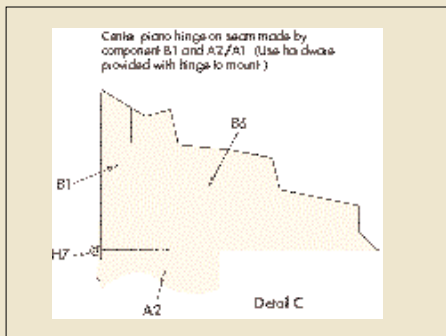
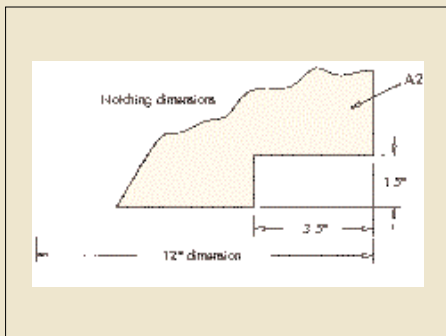
Piece No.	Size	Quantity
1	30" x 13.5"	2
2	30" x 12"	2
3	30" x 30.5"	1

Hardware List

Piece No.	Type	Quantity
H1	2" x 1 1/2" flush-mount hinge	4
H2	3" draw latch	1
H3	No. 10 x 3" wood screws	60
H4*	No. 8 x 1/2" bugle head wood screws	60
H5	No. 6 x 1" finishing nails	1lb
H6	No. 8 x 1/2" pan head wood screws	20
H7	30" x 1 1/2" piano hinge	1

*can substitute No. 6 1/2" finishing nails





The supports and optional lower doors section can be assembled next. This is merely a four-piece framework, made from 2 by 4s. The holes for the screws will need to be pre-drilled and countersunk as they were in the base framework. Assemble them with 3" No. 10 wood screws.

Now attach the sheathing to the outside of the base with finishing nails $\frac{3}{4}$ " to 1" in length. You can now, if you wish, fill the countersink holes with either dowel rods cut and sanded flush or with filler putty. If you choose to enclose the lower section, attach the doors to the base with hinges as specified in the drawings. The base can now be set aside until later.

Next, turn your attention to the cabinet. Start by laying the back out on a flat surface. Prepare the sides by applying glue to the mating surfaces. These can be attached using $1\frac{1}{2}$ " #8 bugle-head screws or can be nailed with finishing nails. If you are using finishing nails and a hammer, you will need to clamp the parts until the glue has time to set. (Screws and pneumatic nailing will not require clamping.) After this, prep and attach the top, then the bottom, to the cabinet. The result should be a large box.

Assemble the dividers to the shelf (before inserting them into the cabinet). When marking the shelf for placement of the dividers, transfer the marks to the inside of the top (this way, there will be no need for squares later on). All of these pieces should be assembled with glue and fasteners. Be sure to run a row of fasteners down the back of the cabinet at the shelf, too. This will give the support needed to prevent the shelf from sagging under a load. Cubbys are shown in drawings but shelving can be easily modified

to meet your needs. If you plan on applying a finish to the cabinet, now is a good time to do it. Be sure to finish the fold-down front at the same time.

Once all this is done, you can attach the cabinet to the base. Use $1\frac{1}{2}$ " No. 8 bugle-head screws in at least the four corners and along the back every 12". Now assemble the front to the base using the drawings as a guide. Use $\frac{1}{2}$ " No. 8 pan-head wood screws or the hardware provided with your hinge set. Attach the

draw latch to the top of the cabinet centered across the top according to the manufacturer's instructions and you should be finished.

Open the doors to 90 degrees from closed, unlatch and lower the cabinet front until it rests on the open doors, and presto, the bench is in operation. This cabinet is both strong and space saving. You can add a power strip to the cabinet or the base, and a swing-arm light can be easily installed on the top! FSM

