28

SIX-WOOD BOX

Mixed Woods

INSTALLING HARDWARE

Many years ago, I made a drop-leaf walnut wall desk with a number of variously sized pigeonholes. I remember the satisfaction I felt fitting each of the little dividers into its dadoes. I remember the pains I took to smooth the wood with a variety of sandpaper grits. I also remember visiting the hardware store in search of a lid support that would hold the drop leaf at the proper angle so that it could be used as a writing surface.

I found the brass support that I had envisioned for my desk and I took it home and tried to install it. I tried it one way and then another and another, each time making screw holes in my carefully sanded walnut, until I realized, with a growing sense of panic, that it simply wasn't going to work, that the arrangement of pigeonholes I'd designed left no room for the operation of this lid support.

I searched the mail order catalogs next (at that time, there weren't nearly as many to choose from). But nothing I found there looked any more likely to work in the tight confines of my desk than what I'd already tried.

Rule number one for makers of furniture and woodenware: *Buy the hardware first.* Buy it before construction starts, before a single stick of wood is cut, before even the finishing touches are put on the design. Buy the hardware first because what the project requires may not be available or, if available, may not work as envisioned.

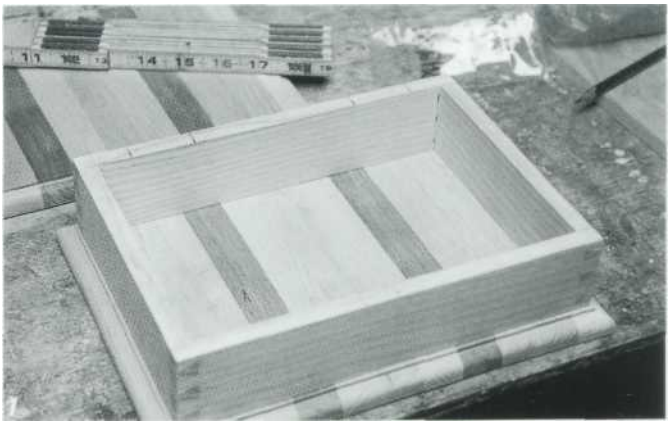
What happened to the wall desk? I did finish it, and we did use it in our home for several years. We, then, later gave it to a friend. Although I haven't seen it for ten or eleven years and have attempted to blot its memory from my mind, I believe that my solution to the problem of the drop leaf support involved a length of noisy and inelegant brass chain.

The opened six-wood box shows the lock installed in the front.

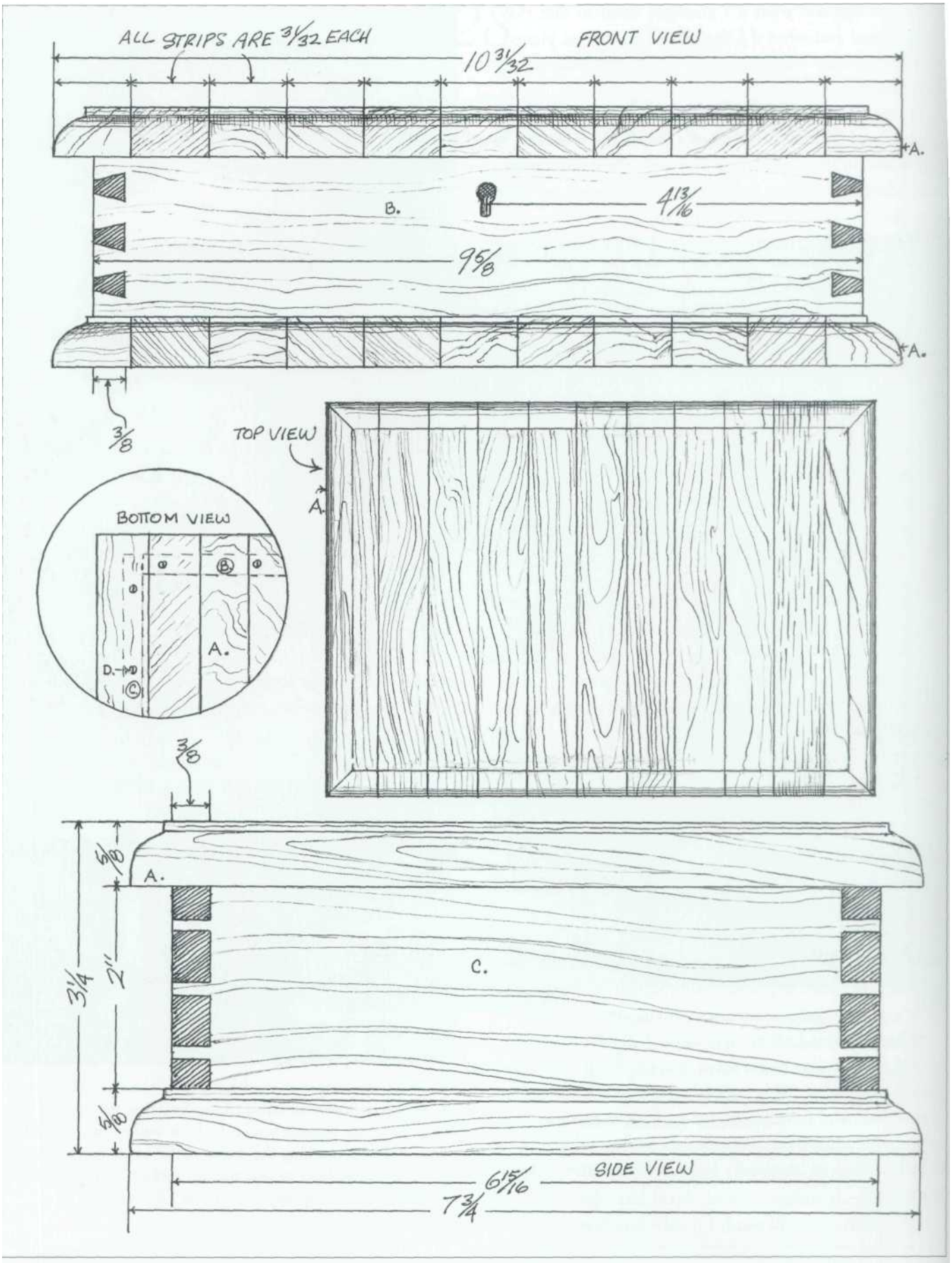
Before beginning work on this small box, I waited for my hardware to arrive.

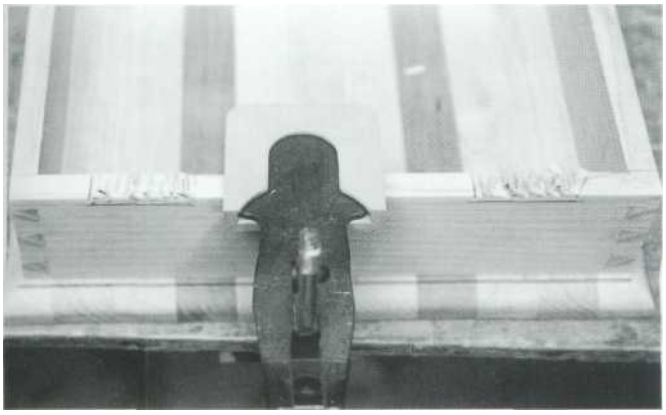
Begin construction with the glued-up panel from which the top and bottom are cut. Shuffle around a number of rips approximately 1" wide until a pleasing arrangement is found. Then glue-up and clamp these rips. After the glue is cured, you can plane the panel (see chapter five) cut out the box's top and bottom, and mould them on a shaper or a table-mounted router.

Dimension and dovetail sidewall material together (see chapter twenty-five). Fasten the bottom in place with a number of screws passing through oversized holes that allow expansion and contraction of the bottom in response to seasonal changes in humidity.

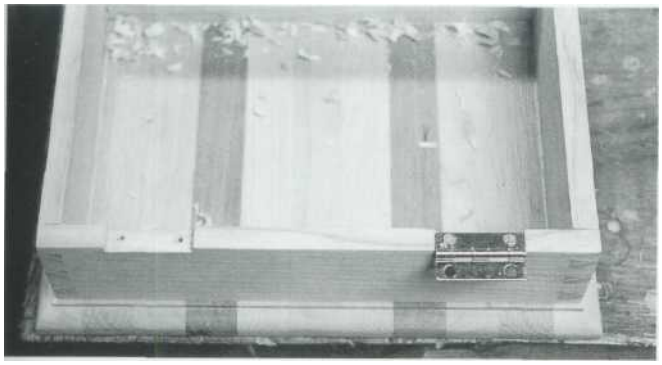


1 Install the hinges on the back wall of the box. This process begins with careful layout. Lines marking the ends of the hinge leaves are squared across the back wall of the box. Then, additional lines marking the depth of the hinge mortises are drawn. Set these lines so that the top surfaces of the top leaves are flush with the top edge of the box's back wall.

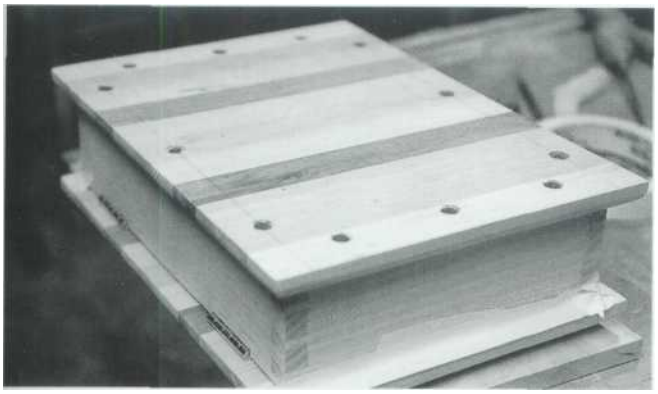

ALL STRIPS ARE 3/32 EACH
FRONT VIEW
10 3/32
A.
B.
4 13/16
9 5/8
A.
3/8
TOP VIEW
A.
BOTTOM VIEW
B.
A.
D.
C.
3/8
5/16
A.
3 1/4
2"
C.
5/16
SIDE VIEW
6 15/16
7 3/4



2 *A series of* ***shallow*** *chisel cuts lifts wood from the mortises. this will be removed by working the chisel back, from the* opposite direction.



3 After cutting the mortises, install the hinges. Take care to accurately align the hinges so that both hinge pins open on the same axis.

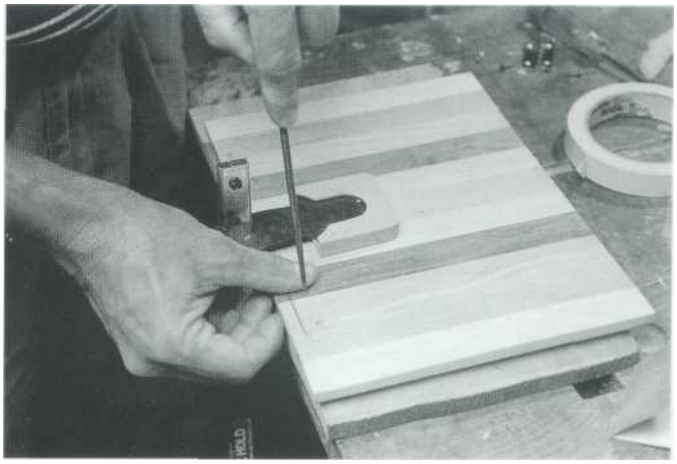


4 When the hinges have been fastened to the box's back wall, invert the box over the lid and tape in place. Then mark hinge locations very carefully.

MATERIALS LIST

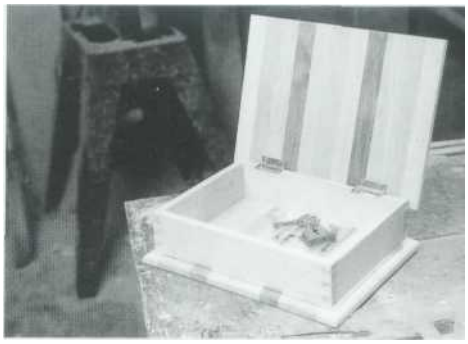
A	Top and bottom	2 pcs.	$\frac{5}{8} \times 7\frac{3}{4} \times 10\frac{31}{32}$
B	Front and back	2 pcs.	$\frac{3}{8} \times 2 \times 9\frac{5}{8}$
C	Side	2 pcs.	$\frac{3}{8} \times 2 \times 6\frac{15}{16}$
D	Screws	12 pcs.	$1\frac{1}{4}$ no. 8
E	Hinge	2 pcs.	$1\frac{1}{2} \times \frac{7}{8}$
F	Box lock	1 pc.	$1\frac{1}{2} \times 1$

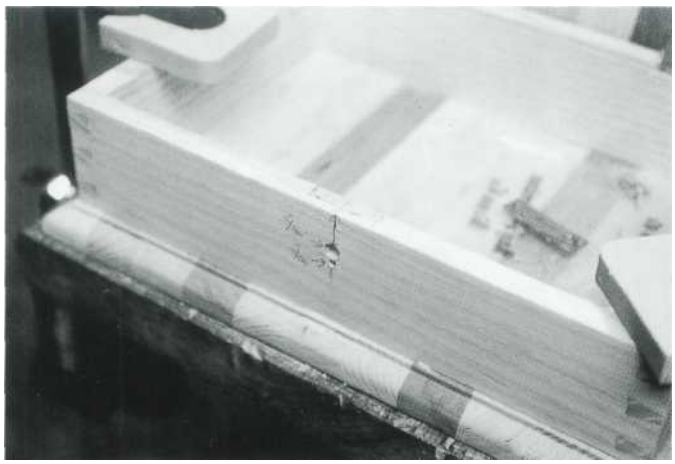
**Front, back and side length measurements are net. Surplus should be added so that dovetail can be sanded flush.*
**Hinges and lock were ordered from Constantine's Hardware.*
**Reading from left to right, the woods in the top are as follows: hard maple, white oak, cherry, walnut, sassafras, cherry, sassafras, walnut, cherry, white oak, hard maple. The box's walls are made of ash.*



5 Remove hinges from the back wall so they can be installed on the lid. Here, a scratch awl is being used to punch **a** starting hole for the drill bit in the center of the circle marking the screw holes in the hinges.

6 After installing the hinges on the lid, fasten the hinges' other leaves into the mortises previously cut into the box's back wall.

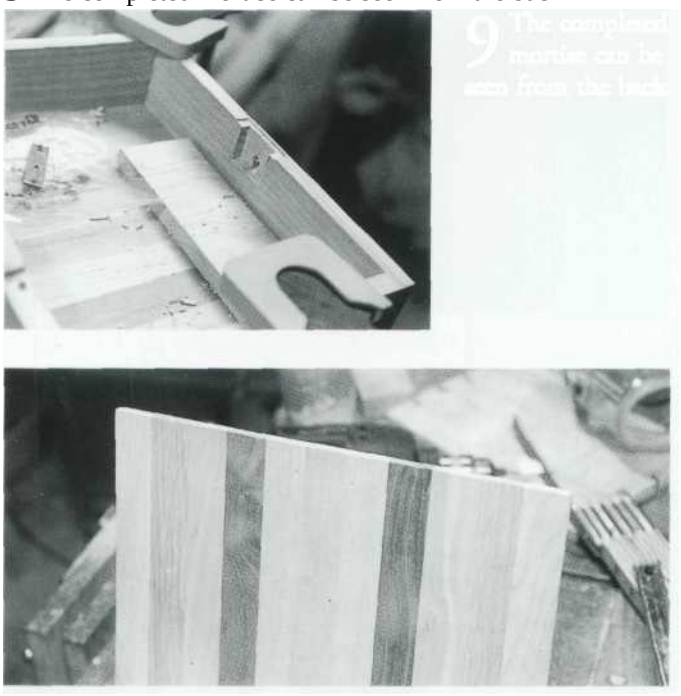


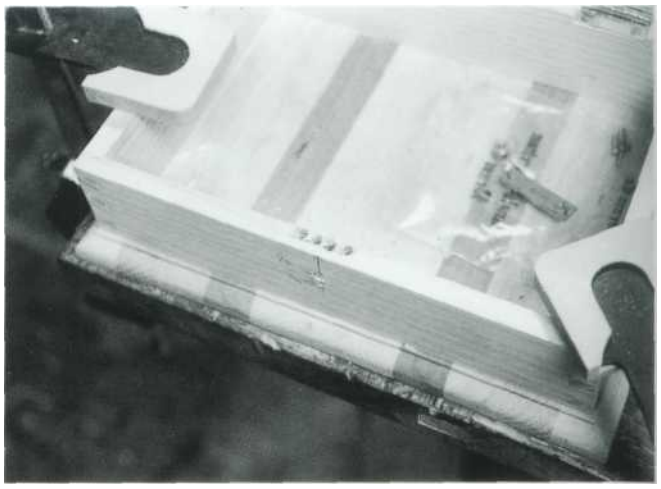


7 Next, install the brass box lock. Again, careful layout is essential. Square a centerline across the top edge of the box's front wall and draw the mortise for the lock on the top edge and inside face.

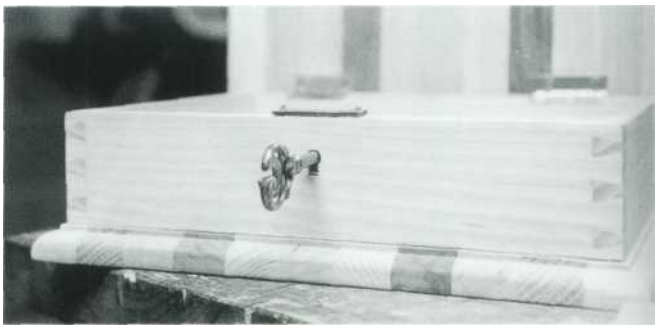
Then extend the centerline down the front face of the box's front wall, and lay out the keyhole along this line. Drill a 1/4″ hole above a 1/8" hole to remove most of the waste necessary for the creation of the keyhole.

9 The completed mortise can be seen from the back





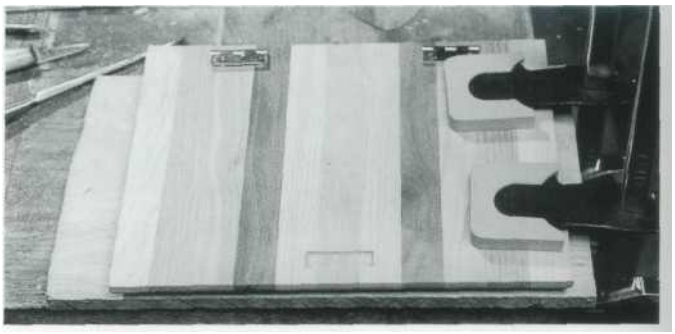
8 Four 3/16" holes remove much of the waste for the mortise that will house the main body of the lock.



10 After installing the lock in the box's front wall, locate the strike plate on the bottom side of the lid. The fist step in that process is locking that strike plate in place with the key.

Here, the strike plate can be seen locked facedown. Notice the two bumps on the back side of the strike plate. When the lid is closed and tapped firmly, these two bumps leave depressions on the lid's bottom surface, locating the strike plate on the lid.

12 Cut the mortise in which the strike plate will sit. The lock is now fully functional.



11 In this photo, the two depressions can be seen near the upper edge of the lid. After the lid has been clamped face-down on the benchtop, position the strike plate so that the two bumps on its upper side are located in these depressions. Then draw a line around the strike plate and the mortise cut.