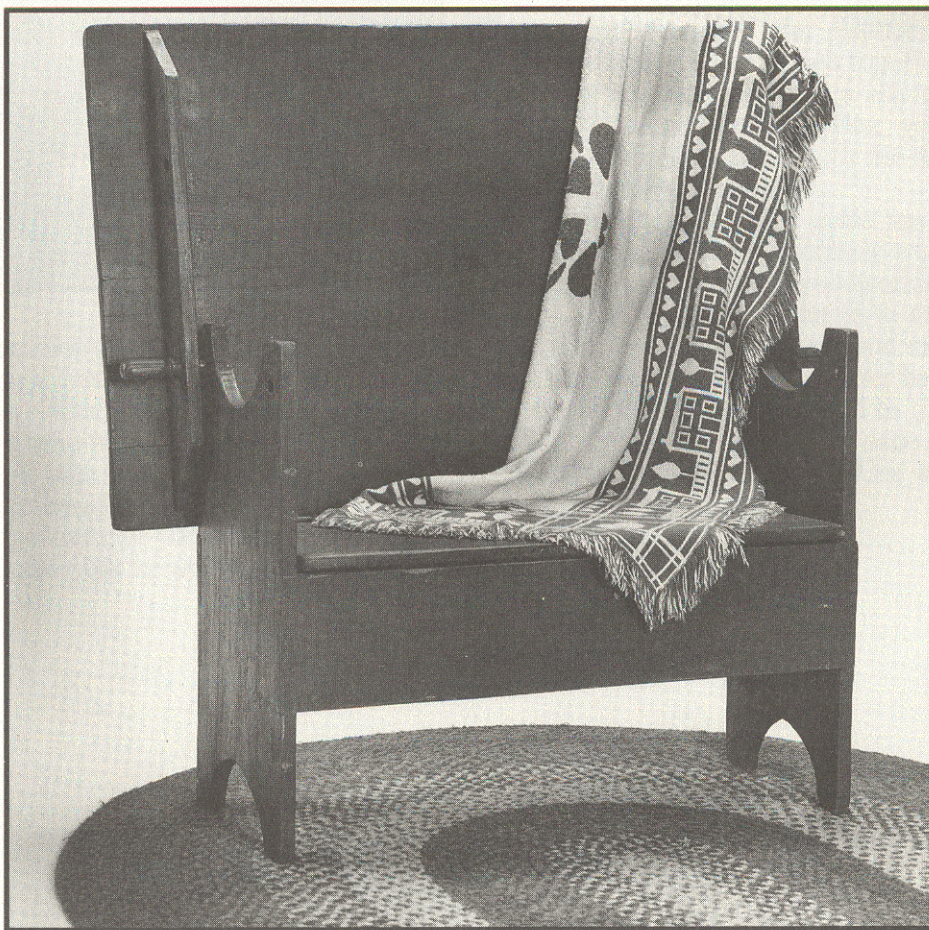


TILT-TOP TABLE/BENCH

The most striking feature of this table is its economy of design. A few boards, nails, and screws create a table, a bench, and a chest. There are no complicated mechanisms to give it this versatility, just simple geometry. Perhaps because they are so simple, tables like this survive over the years. In today's house-

hold the tilt-top table allows a dining room or family room to provide either table space or increased open space and seating; the room can host either a sit-down meal or a party for lots of people.

Make the table from any reasonably stable wood. The pictured table is a mix of pine and oak. Hand-plane marks are



still visible in the boards, under the red paint. If your room is large enough, you can make the table more versatile by increasing the size of the tabletop. An increase of 4 to 6 inches in each direction is good. Too large a top will make the bench unstable.

1 Select the stock and cut the parts. Edge-glue narrower stock as necessary to obtain the widths required, then cut the ends, stretchers, seat, hinge board, chest bottom, and supports to the dimensions specified by the Cutting List. See page 6 for more on edge-gluing. Since none of the parts require perfectly uniform thickness, feel free to hand plane them for an historically accu-

rate hand-planed feel and look. Prepare the top last, even after constructing the base if you want.

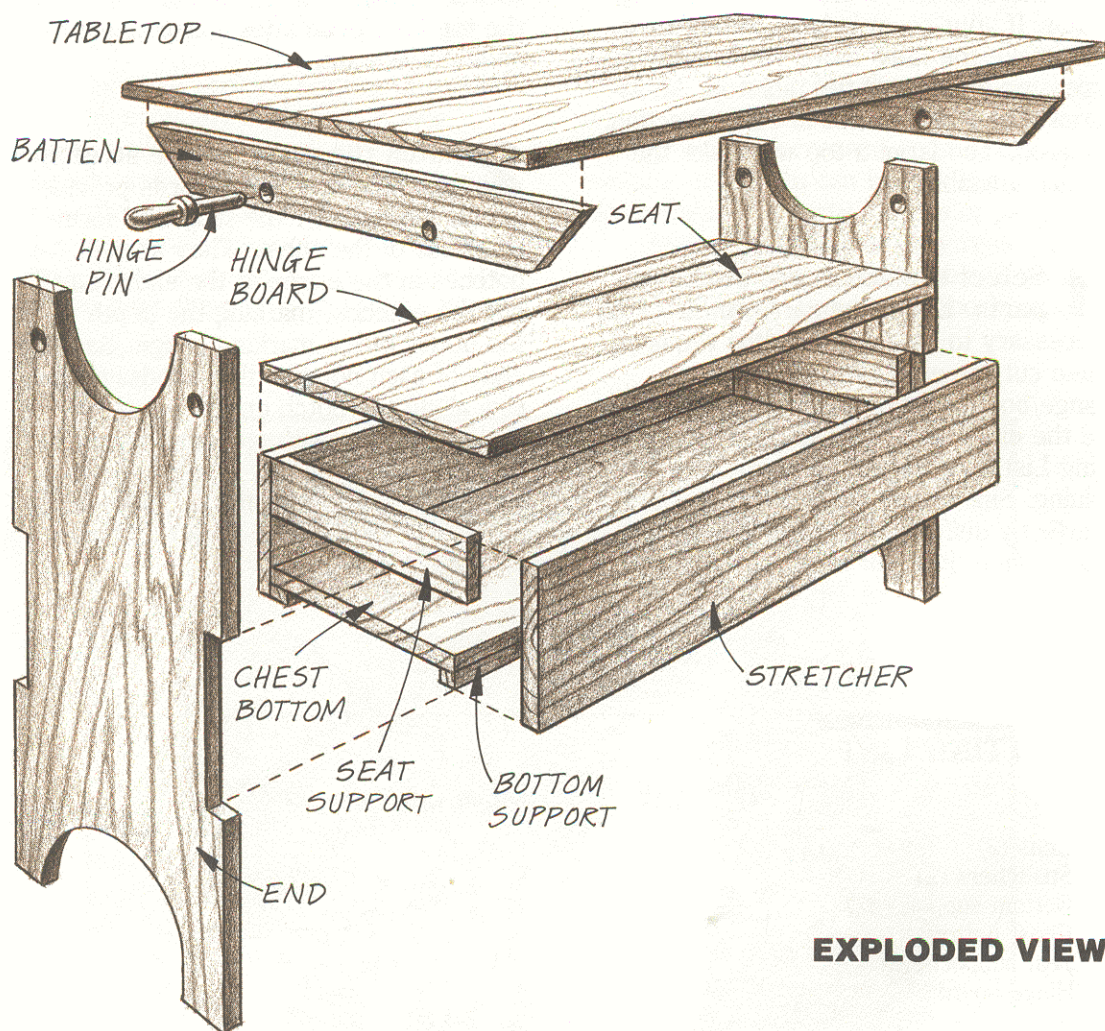
2 Notch the ends for the stretchers. The stretcher boards provide lateral strength for the table and form the sides of the chest. They fit in notches in the edges of the ends. Lay out the notches, marking the depth of the notch with a marking gauge. Saw the ends of each notch with a handsaw, then saw along the notch on the waste side of the layout lines with a coping saw or saber saw. Clean up and flatten the sawn surface with a coarse file or bullnose plane. The stretchers should fit snugly into the notches.

CUTTING LIST

Part	Dimensions
Ends (2)	1" × 14¼" × 29"
Stretchers (2)	¾" × 7¾" × 36¾"
Bottom supports (2)	¾" × 1" × 34½"
Chest bottom	7/8" × 12¾" × 34½"
Seat supports (2)	½" × 3" × 12½"
Hinge board	7/8" × 3½" × 34¾"
Seat	7/8" × 12" × 34½"
Battens (2)	1" × 3¼" × 27½"
Tabletop	¾" × 29½" × 46¾"
Hinge pins (4)	1⅜" dia. × 6"

Hardware

3d and 6d cut box or fine finish nails. Available from many building-supply stores and from Tremont Nail Company, P.O. Box 111, Wareham, MA 02571; (508) 295-0038. Item #CX6 or #CE6.
1 pair butt hinges, 2" × 1½", open
#10 × 2" flathead wood screws



EXPLODED VIEW

3 Make the cutouts in the table ends. The top and bottom of the ends have semi-circular cutouts. These form the table feet and add visual interest when the tabletop is tilted up. The top rear corners of the ends are rounded to allow the top to tilt. Lay out the cutouts and rounded corners, then saw them with a coping saw or saber saw.

Clean up the sawn edges with files and sandpaper.

4 Attach the stretchers to the ends. Predrill for four 6d cut finish nails in both ends of both stretchers. Sand the table ends and stretchers. Stand the table ends on edge on the work-

bench and nail a stretcher into the notches, making certain that the table ends are parallel to each other and at right angles to the stretchers. Turn the assembly over and install the second stretcher in the same way.

5 Attach the bottom support strips and chest bottom. Glue and clamp the two bottom support strips inside the lower edge of each stretcher. The bottom of the original table simply sets in place on the support strips. You'll have a steadier table and less danger of the bottom bowing or cupping if you screw it to the supports.

6 Nail the seat supports to the table ends. The seat supports fit between the stretchers with $\frac{1}{4}$ inch of clearance to allow for shrinkage. Place the assembled table base on end on the workbench. Nail one of the seat supports in place with 3d cut nails. Turn the assembly over and nail the other support in place.

7 Attach the hinge board. The hinge board has a $\frac{1}{8}$ -inch-radius bead along the hinged edge. Rout the bead with a beading bit in a table-mounted router. Lay out and cut the hinge mortises on the beaded edge of the board.

Put the hinge board in place on the stretcher and support boards. Drill for four 6d nails through the hinge board into the stretcher and one into each support board. Sand the hinge board, then glue and nail it in place.

SHOP TIP: Butt hinges are available in a variety of designs; the correct mortise depth depends on the design. To determine the correct depth, hold the hinge in its closed position with the leaves parallel to each other. With some hinge designs the leaves will be touching each other when they are parallel but with other designs they will be a small distance apart. Measure from the outside of one leaf to the outside of the other leaf while they are parallel. From this measurement subtract the amount of clearance that you want between the door and the piece that the door hinges to: $\frac{1}{16}$ inch is a good amount for most applications. Divide the remainder by 2. This is the depth of the mortise for each leaf. Scribe the depth onto the stock with a marking gauge.

8 Install the seat. The seat fits between the table ends with $\frac{1}{8}$ inch of clearance at each end. It hinges to the hinge board. Before attaching the seat, round-over the top of the front edge with a $\frac{3}{8}$ -inch roundover bit in your router.

Center the seat between the ends, mark the location of the hinge-board mortises on the seat, and cut mortises to match. Sand the seat before installing the hinges.

9 Cut the battens and screw them to the tabletop. Saw the

(continued on page 8)

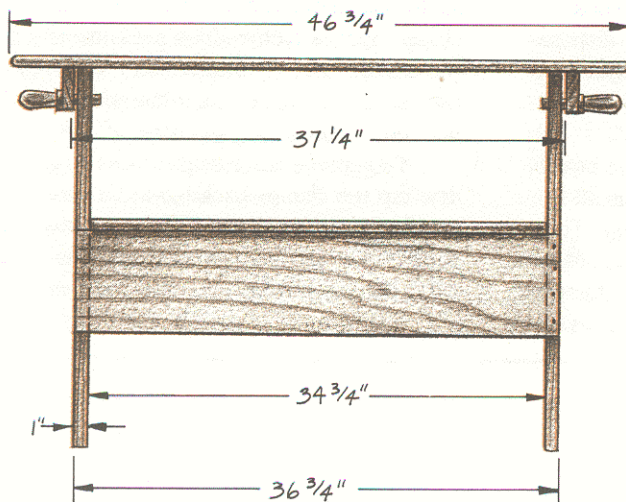
ends of the battens to 45 degrees, as shown in the *Side View*. Drill three shank holes and counterbores for #10 screws in the edge of each batten. The counterbores must be $1\frac{3}{4}$ inches deep in the $3\frac{1}{4}$ -inch-wide battens for the 2-inch screws to reach $\frac{1}{2}$ inch into the tabletop. Make the shank holes near the ends slightly oversize to allow some seasonal movement in the tabletop.

With the tabletop centered and square on the base, clamp the battens in position on the underside of the top. Leave $\frac{1}{8}$ -inch to $\frac{1}{4}$ -inch clearance between the battens and the table ends. Turn the tabletop over and mark the screw locations on the underside. Remove the battens and drill $\frac{1}{2}$ -inch-deep pilot holes.

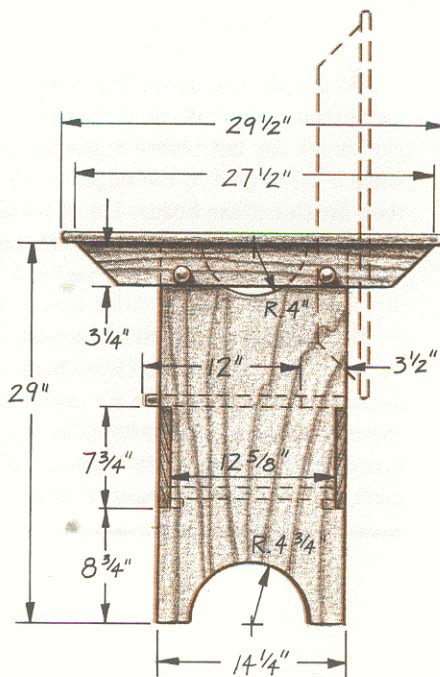
Sand the top and the battens, then screw the battens in place. If you like, glue the center 3 or 4 inches of each batten but no more.

10 Drill holes for the hinge pins.

Lay out the hinge pin holes on the inside of the table ends. Put the tabletop on the base and shim it up off the base about the thickness of a couple of business cards. Clamp one of the battens to the adjacent table end. Bore the $\frac{3}{4}$ -inch holes through the table end and batten. To prevent tear-out on the outside of the batten, clamp a scrap of wood where the hole will exit. Drill both holes at one end of the table, then repeat the procedure at the other end.

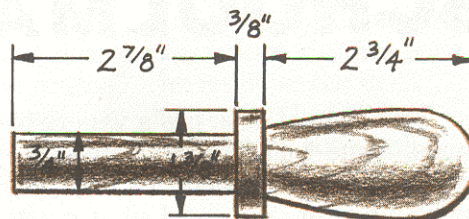


FRONT VIEW



SIDE VIEW

11 Make the hinge pins. The table in the photo has holes for four pins, two to hinge the top and two to lock it. The locking pins have long since been lost. You can turn the pins on a lathe if you have one, or shape them with a drawknife and spokeshave. The *Hinge Pin Detail* shows the shape. If you're shaping them by hand, consider starting with lengths of wooden closet pole. Put a very slight taper on the shafts of the pins so the pin will wedge tight in the batten while still turning in the hole in the table end. Test them and sand the pins or holes to get a proper fit. The top should tilt without loosening the pins.



HINGE PIN DETAIL

12 Complete the tilt-top table/bench. Tables get a lot of use and abuse so their finish needs some thought. For an historically accurate reproduction, use red milk paint. It's quite durable and ages nicely. See page 100 for more information. If you prefer a natural finish, you can use a modern polyurethane or a traditional oil. The poly-

urethane gives a durable surface film but when the film isn't durable enough the resultant scratches look pretty bad and are a nuisance to touch up. The oil finish will mark up more easily but the wear doesn't usually look so bad and touching up with a bit more oil is easy. You might also consider using just paste wax on the bare wood. If you're thinking of stain, keep in mind that a scratch through stain sticks out like a sore thumb.

One final thought on this table design: If the tabletop gets to looking pretty bad, just pull the pins and take the top back to the shop for planing, sanding, and refinishing.