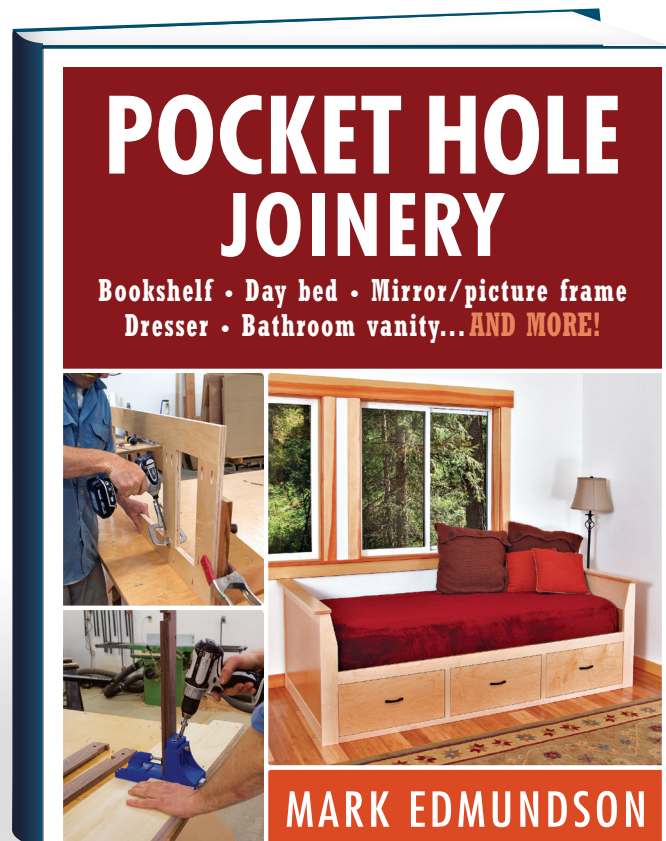




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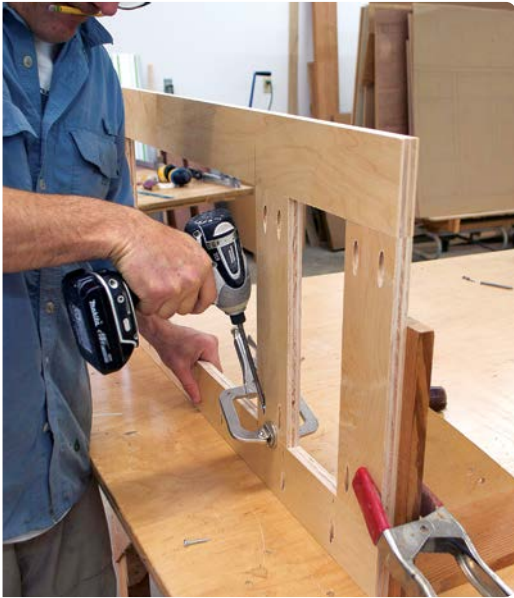


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MARK EDMUNDSON

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CHAPTER

2

BLANKET BENCH

The tops of benches always seem to accumulate stuff, so adding a shelf below this blanket bench should help to alleviate that problem. Adding the shelf also hides some pocket holes, so it's a win-win as far as furniture details go. The benchtop planks are the biggest pieces required at 5³/₄ in. wide and 38 in. long, but the rest of the pieces are either narrow or short. The machining is

basic, and it's possible to build this bench with just a tablesaw, jigsaw, and pocket screw jig. A chopsaw or sliding crosscut sled to cut multiple parts to the same length would be helpful to ensure tight joints but is not essential. Overall, this is a very simple project for the beginning woodworker that illustrates how versatile pocket hole joinery can be.



MATERIALS

QUANTITY	PART	ACTUAL SIZE	CONSTRUCTION NOTES
4	Bench ends	$\frac{3}{4}$ in. \times $5\frac{3}{4}$ in. \times $17\frac{1}{4}$ in.	Black walnut
2	Benchtop	$\frac{3}{4}$ in. \times $5\frac{3}{4}$ in. \times 38 in.	Black walnut
2	Benchtop center strips	$\frac{3}{4}$ in. \times $1\frac{1}{2}$ in. \times $16\frac{3}{4}$ in.	Black walnut
4	Shelf slats	$\frac{3}{4}$ in. \times $2\frac{3}{4}$ in. \times 32 in.	Alder
2	Skirts	$\frac{3}{4}$ in. \times $2\frac{3}{4}$ in. \times 32 in.	Alder

Stock Preparation

All the material on the bench is $\frac{3}{4}$ in. thick. You can mill your own boards, of course, but it's easier to purchase S4S ("surfaced four sides") planks from the lumberyard and avoid joining and planing. The wide widths are all $5\frac{3}{4}$ in., the skirt and lower slats are $2\frac{3}{4}$ in., and the narrow strips on the top are $1\frac{1}{2}$ in. wide. This project requires no glue, biscuits, or dowels—just pocket screws. To further simplify construction, I used only the right-angle jig, two face clamps, and a couple of small bar clamps for assembly.

There are several ways to spice up this bench. I used contrasting wood for the skirt and lower shelf; other combinations might be matching wood for the top and shelf and a different wood for the ends and skirts. Cut all the parts to length, but note that the lower shelf stock and skirts will initially be cut at 32 in. and then later trimmed to $31\frac{1}{2}$ in. Label which faces will

be out, front, back, right, and left on all the parts, and then sand away the machine marks on the surfaces that will be visible. To make edge-joining the ends, lower shelf, and benchtop easier, bevel the corners at the edge joints with a block plane or sanding pad first, which negates the need to sand the joint flush after pocket screwing.

Assembling the Bench Ends

The bench ends, which are made up of two $5\frac{3}{4}$ -in. by $17\frac{1}{4}$ -in. pieces, get two sets of pocket holes. The first group of four holes joins the two end boards together. On the back $5\frac{3}{4}$ -in. boards, measure down from the top along the inside edge $\frac{3}{4}$ in. and $2\frac{1}{4}$ in., and mark for the top pocket screws (see the drawing on p. 17). From the bottom, measure up $2\frac{1}{2}$ in. and $3\frac{1}{2}$ in., and mark for the bottom set of pocket screws. The next group of holes attaches the bench ends to the benchtop and is located along the top inside edge. Measure over $1\frac{1}{4}$ in. in from both edges on the inside face on all four boards, and mark for the pocket hole. Drill the pocket holes in the end stock.

Use the right-angle jig to hold the front $5\frac{3}{4}$ -in. end piece with the center edge up and the inside facing out. Place the back end piece
(Continued on p. 19)

WORK SMART

When labeling parts, try to mark in an area that will not be visible after the bench is assembled, such as the end grain on the ends and the underside of the benchtop.



Drill the pocket holes in the four bench-end pieces. Building a sled for your pocket hole jig (see p. 8) helps support the stock and allows the jig to be clamped to your work surface.



Clamp the right-angle jig to the end piece to help hold it upright during assembly.



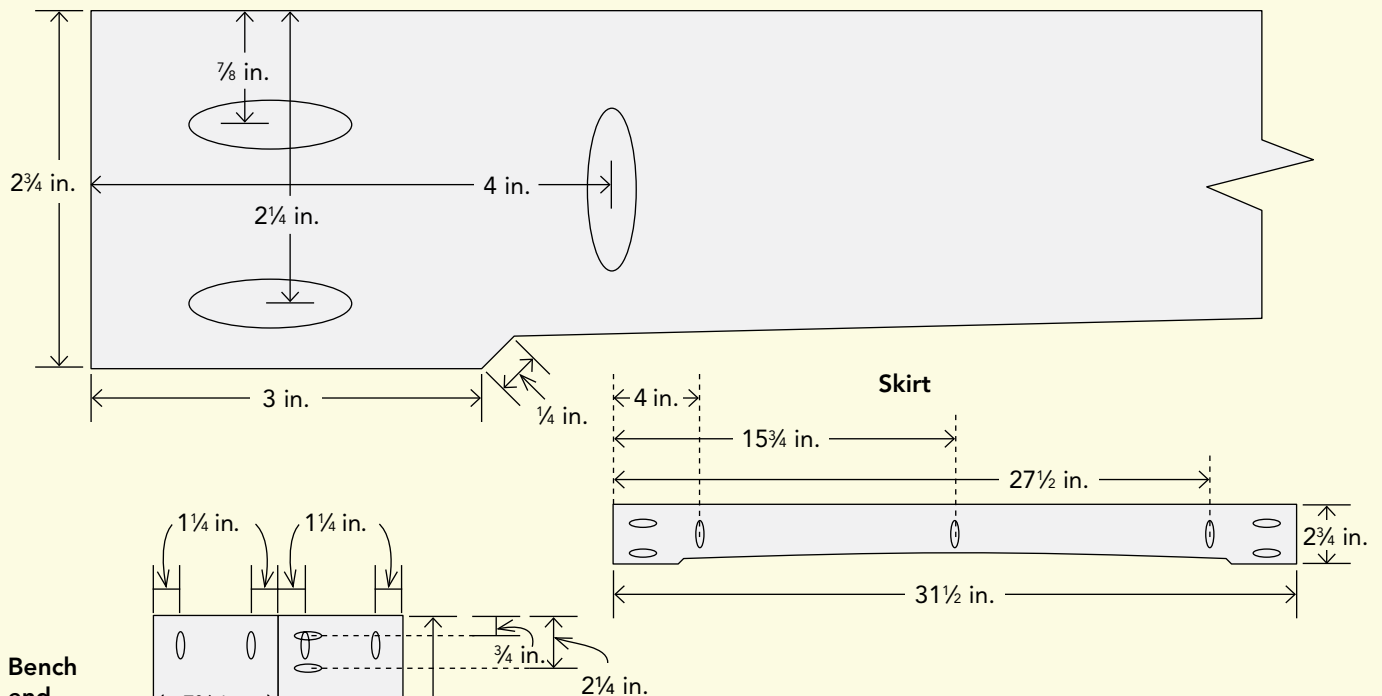
Center a face clamp over the seam between the end pieces as you drive the pocket screws.



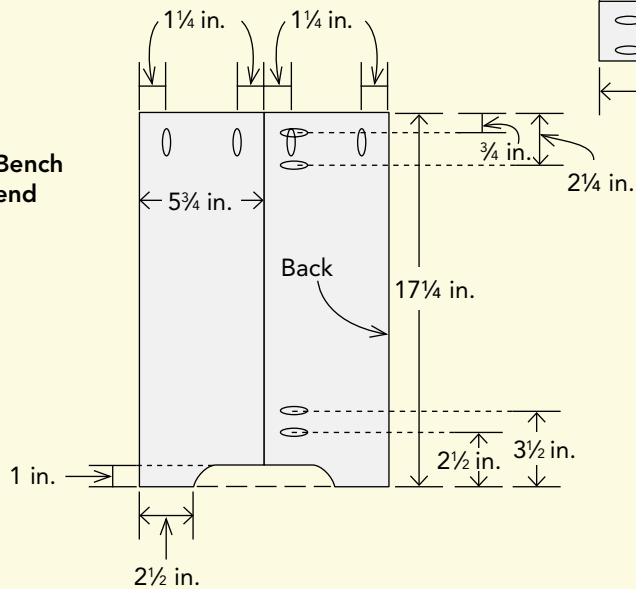
Use a roll of tape to help draw the curve in the bottom edge of the bench end.

BENCH END AND SKIRT DETAIL

Skirt detail



Bench end

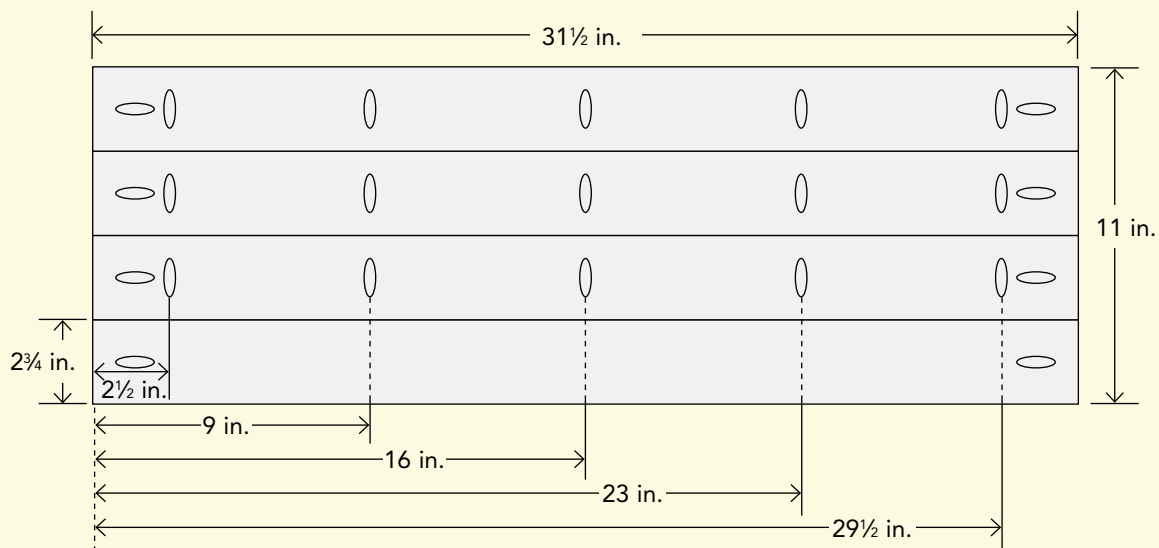


WORK SMART

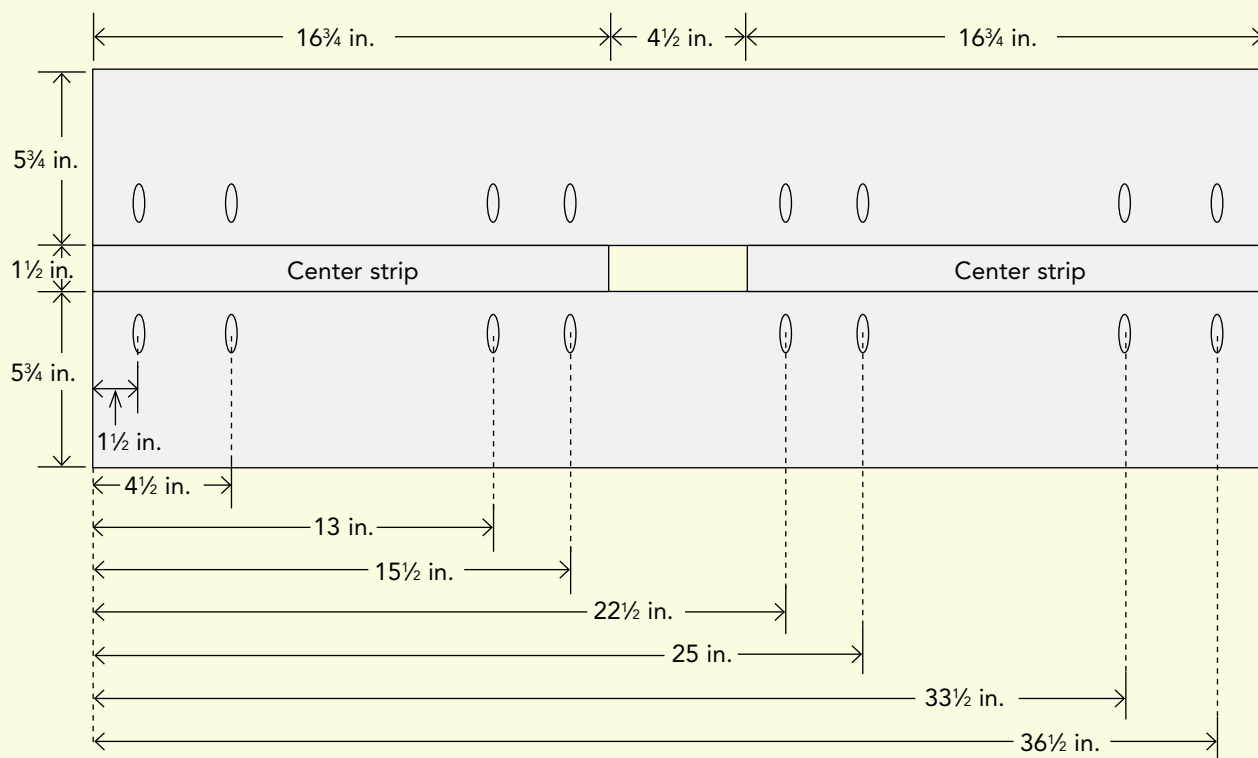
The exact location of the pocket holes isn't supercritical. The measurements are intended to keep screws from colliding and from being hard to reach during assembly. Once you get good at using pocket screws, you'll be able to lay out their location by eye without measuring.

BENCHTOP AND LOWER SHELF

Lower shelf



Benchtop



on top, flush up the top edge, and hold with the face clamp. Drive two pocket screws into the top pair of holes. Then move the right-angle jig to the top edge and repeat for the bottom pair of holes. Assemble the opposite end in the same manner.

Curves cut into the bottom edge of each bench end are a subtle design touch (and echo the curves cut in the skirt). Measure in $2\frac{1}{2}$ in. from each side and make a mark on the bottom edge. Using a try square, draw a line 1 in. up from the bottom edge between the $2\frac{1}{2}$ -in. marks. Use a roll of tape or similar rounded object to trace the curve between the $2\frac{1}{2}$ -in. mark and the 1-in. line. Cut out the curves and clean up the edges with a file or sander.

Assembling the Lower Shelf

Three of the four $2\frac{3}{4}$ -in. lower shelf slats receive pocket holes for assembly (the front slat

WORK SMART

The right-angle jig is really helpful when assembling the bench; if you haven't already built one (see p. 8), I suggest you take a minute to do so now.

does not get drilled for assembly, but it will get drilled at either end after the shelf is cut to length). Make marks on the underside of the #2, #3, and #4 slats at $2\frac{1}{2}$ in., 9 in., 16 in., 23 in., and $29\frac{1}{2}$ in. (see the drawing on the facing page). Drill pocket holes at the marks. Next, take the front slat (the one without any pocket holes) and clamp it to the right-angle jig so that the bottom faces out. Place the #2 slat on top of the front slat, flush up the end, and hold tight with the face clamp at the opposite end of the



Mark the #2, #3, and #4 shelf slats for pocket holes, using a straightedge to mark across all three slats at the same time.



Use the marks on the slats to align them on the jig for drilling.



Starting at the opposite end from the right-angle jig, clamp the slats and drive the first screw.

WORK SMART

Always clamp if you can. Although it may be tempting not to clamp every pocket hole during assembly, it's a good habit to get into—especially if it's important that the pieces don't shift.



Continue adding the shelf slats until all four are in place.



Wait until all of the slats have been assembled, then move the right-angle jig to the center and drive the last screw on each slat.

right-angle jig. The ends don't need to be perfect since the shelf will be cut to 31 1/2 in. after it is assembled. Starting at the end, drive a pocket screw and then move the clamp to the next hole and repeat. Do not drive the last pocket screw located in front of the right-angle jig yet. Set the #3 slat on top and repeat the drilling procedure, then set the #4 slat on top and repeat. Move the right-angle jig to the middle, and drive the pocket holes that were skipped at the end.

WORK SMART

A lot of the pocket holes on the blanket bench are drilled perpendicular to the wood grain rather than in the direction of the wood grain as is done with face frames. The hole created is a bit more ragged and should be cleaned up with a sander to avoid the risk of splinters.

Assembling the Benchtop

The benchtop is composed of two 5 3/4-in. by 38-in. planks and two 1 1/2-in. by 16 3/4-in. center strips, all of which are 3/4 in. thick. The space between the center strips not only provides a handhold for carrying the bench but also allows you to slip the face clamp in between the slats to hold it tight when driving the center pocket screws. The pocket holes, located on the two 38-in. planks, must be within reach of the face clamps so the holes can be secured during assembly and not interfere with the pocket screws on the ends that attach the top. On the underside of the 38-in. boards, mark for pocket holes on the inside edge at 1 1/2 in., 4 1/2 in., 13 in., 15 1/2 in., 22 1/2 in., 25 in., 33 1/2 in., and 36 1/2 in. Drill out all the pocket holes.

Clamp the back 5 3/4-in. board to the right-angle jig at one end. To reach the holes with the drill, the surface must be close to the edge of the workbench; otherwise, the edge of the bench will get in the way of the drill. Place the 1 1/2-in. center strip on top of the 5 3/4-in. board, flushing up the end. Set the face clamp over the second, 4 1/2-in. pocket hole and drive a screw. Continue down the edge, securing the first strip. Then attach the second strip, again flushing up the end. There should be a 4 1/2-in. gap between the two strips. Attach the second strip with pocket screws, using the face clamp to hold it secure.



Clamp the back benchtop board to the right-angle jig, and set one of the center strips on top. Hold firm with the face clamp while you drill the second pocket screw from the end.



Place the front board on top of the center strips, set the face clamp over the first hole, and drive a pocket screw.



Slide the face clamp in between the gap in the strips, position it over the hole, and drive the screw.

Next, place the front 5³/₄-in. board on top of the strips. At the opposite end of the right-angle jig, hold tight with the face clamp and drive the first pair of screws. Slip the face clamp in between the gap between the strips and drive screws into the next pair of holes. Reposition the clamp onto the other strip and drive the screws. Remove the face clamp and slide the right-angle jig to the opposite end. Clamp and drive the screws that were located in front of the right-angle jig.

Prepping the Shelf and Skirt

The lower shelf and skirt material need to be cut to 31¹/₂ in. to ensure that the ends of the shelf meet squarely with the bench ends. Set a stop block to cut the shelf at 31³/₄ in. After this first cut, set the stop block to cut the shelf at 31¹/₂ in. and trim the other end of the shelf. Cut the skirt material at the same time to 31¹/₂ in.

On the underneath side of the shelf are four pocket holes on either end located in the center of each 2³/₄-in. shelf slat; drill these now. On the inside face of the skirts, drill pocket holes at both ends. Measure down from the top edge



Drill one pocket hole at each end of each slat to attach the shelf to the bench ends.



Use a square to mark the 45-degree start of the curve on the lower edge of the skirt.

$\frac{7}{8}$ in. and $2\frac{1}{4}$ in. and mark for pocket holes. Along the top inside edge of the skirts are three pocket holes to attach the skirt to the top. Measure over 4 in., $15\frac{3}{4}$ in., and $27\frac{1}{2}$ in., and mark for the pocket holes.

The skirts have a gentle curve on the bottom edge that needs to be laid out and cut. Starting with one of the skirts, measure over 3 in. on both ends, and draw a 45-degree mark at least $\frac{1}{2}$ in. long. With a square, mark the point at which the 45-degree mark is $\frac{1}{4}$ in. above the bottom edge. At the center of the skirt, make a mark $\frac{1}{2}$ in. up from the bottom edge. Clamp a small scrap of wood at that $\frac{1}{2}$ -in. mark. Take a strip of knot-free wood, $\frac{1}{8}$ in. thick or so, and place it on top of the skirt behind the small piece of wood. Since the narrow strip would be hard to clamp, hold it in place with a tape measure or similar weighted object, and force one end of the strip over the $\frac{1}{4}$ -in. and 45-degree intersections. Do the same thing at the opposite end. Lightly trace the curve, being careful not to push the batten strip out of fair. Cut the curve and round over the edges with a file and sanding block on both stretchers. Repeat for the second skirt.



Gently draw the curve created by the batten onto the skirt.

WORK SMART

If you have a scrap of smooth plywood similar in size to the benchtop, lay it on a pair of sawhorses. In this manner, you'll be able to clamp from both sides without turning the bench around as you would if you built it on a wide table.

Assembling the Bench

Set the benchtop face down on the work surface. The benchtop overhangs the base ends by $2\frac{1}{2}$ in. on either side. To help locate the bench end, clamp a $2\frac{1}{2}$ -in.-wide scrap of wood to the end of the top so that the edges are flush. Check with a square, and shift the scrap so that it is

Square up the scrap spacer with the front edge of the bench.



Mark the center of the benchtop in front of the spacer to help align the bench ends.



Mark the edge of the bench end, which should be $\frac{3}{4}$ in. from the front edge of the top.

square with the front edge. With a tape measure, mark the center of the bench in front of the $2\frac{1}{2}$ -in. spacer. Place the end piece so that the center joint is directly above the center mark on the bench. Mark the front edge of the bench end where it meets the benchtop ($\frac{3}{4}$ in. in from the front edge of the top).

Clamp the right-angle jig to the inside of the bench end and then to the benchtop. Drive the first pocket screw in the end and then remove the right-angle jig and drive the remaining screws into the benchtop. The end should be tight against the $2\frac{1}{2}$ -in. spacer when driving the screws. Remove the $2\frac{1}{2}$ -in. spacer.

The skirt steps in from the front edge of the top 1 in. To help locate the skirt, rip a 1-in. strip of wood on the tablesaw and then clamp it flush with the front edge of the top. Slide the skirt into place and clamp it to the bench (see the top photo on p. 26). Set both screws into the bench end, driving the pocket hole closest to the benchtop first. Then drive the end screw from the skirt into the benchtop. Move the 1-in. spacer in front of the center pocket hole in the skirt and drive the screw into the benchtop, then move the spacer down again to drive the last pocket screw. Repeat this procedure for attaching the opposite skirt to the bench end.



Secure the right-angle jig to the bench end with a face clamp, being careful not to cover up the first pocket hole. Then face-clamp the jig to the benchtop.



Drive the first screw into the end, remove the right-angle jig, and finish screwing off the end to the top.

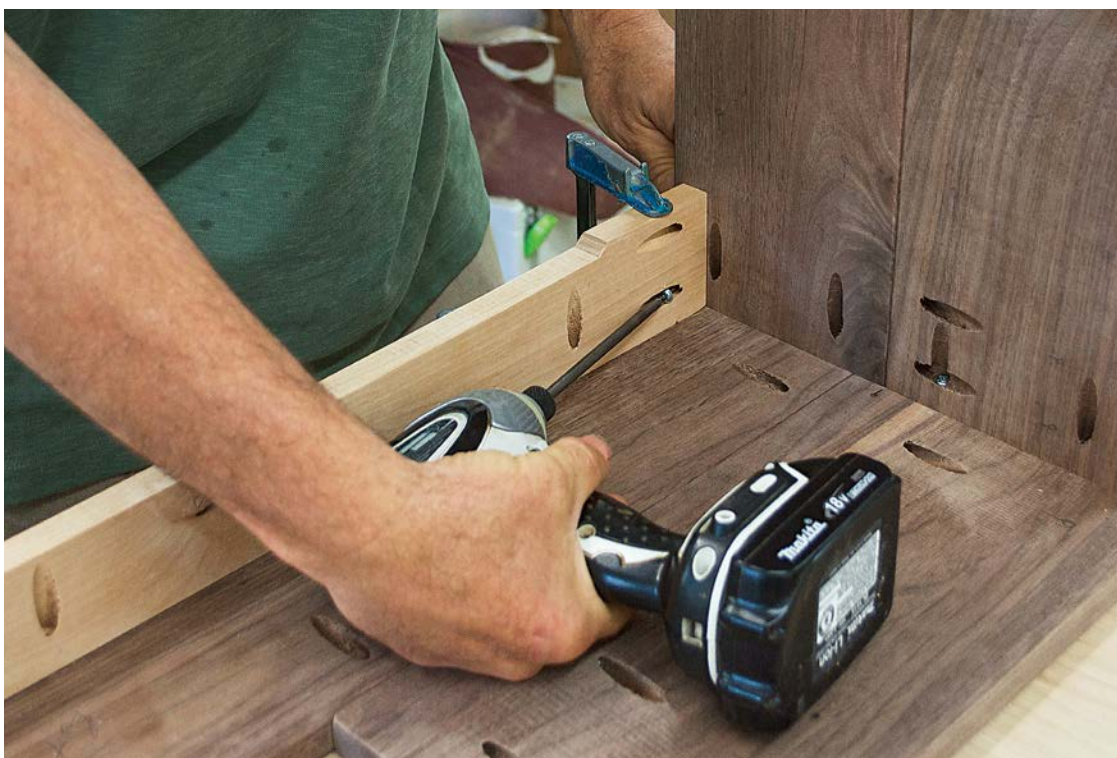
Now you can attach the other end. Measure and mark the benchtop to center the bench end in the same manner as before. Place the end against the skirts and clamp the 2½-in. spacer tight behind it to keep the end from being pushed out when driving the pocket screws.

Carefully drive the lower pocket screw from the skirt into the end on both sides (see the top left photo on p. 27). Drive the upper pocket screws from the skirt into the end, and finish by driving the pocket screws from the end into the benchtop.

Clamp a 1-in. spacer to the benchtop, then butt the skirt to the spacer and clamp in place.



Drive the screws through the skirt into the bench end, starting with the bottom screw, which is backed up by the 1-in. spacer.





Drive the screws from the skirt into the end on both sides.



Finish attaching the end by driving pocket screws into the top.



To install the shelf, make a pair of spacer jigs to support it.



Mark the location of the shelf at the front edge so that you can verify that the shelf did not shift when clamping the right-angle jig in place.

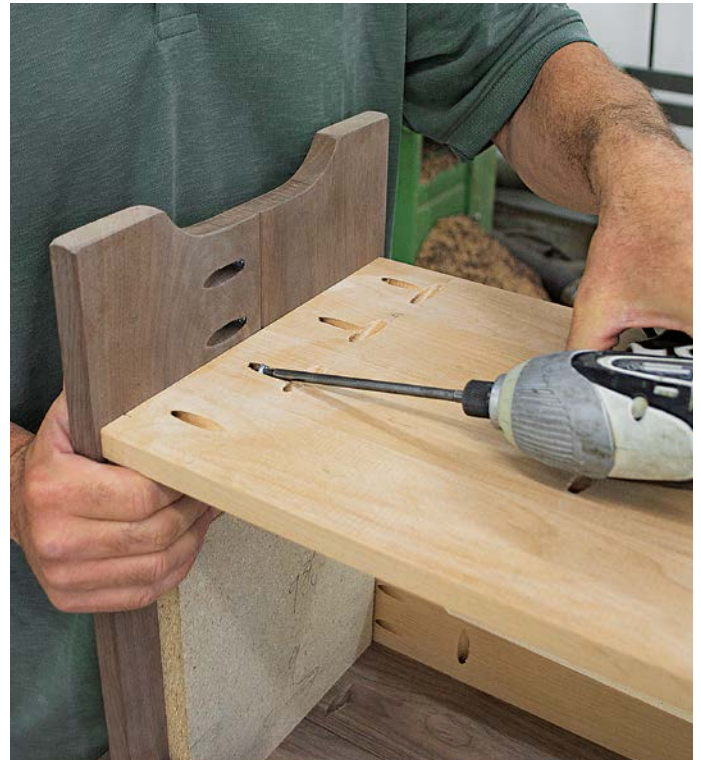
INSTALLING THE LOWER SHELF

I used $2\frac{3}{4}$ -in. offcuts from the shelf strips plus pieces of 9-in. by $9\frac{3}{4}$ -in. plywood to make a spacer jig to install the lower shelf. The jig needs to be in two parts so that the shelf does not get scratched when you remove the spacers. Place the plywood pieces with the $9\frac{3}{4}$ -in. length going up and down against the bench ends. Set

the $2\frac{3}{4}$ -in. strips on top of the plywood pieces. Center the shelf on the ends by lining up the middle seam on the shelf with the middle seam on the ends. Since this seam will be hidden by the right-angle jig, make a mark on the underside of the shelf and the bench end to record the location of the shelf at the front edge.



Clamp the right-angle jig to the shelf and bench end so that the first pocket hole is uncovered.



Remove the right-angle jig and drive the rest of the screws through the shelf.



Hold the upper spacer in place as you slide out the lower spacer to keep from scratching the top of the shelf.

Attach the right-angle jig to the end and the shelf with face clamps so that the first pocket hole is visible. Make sure that the shelf didn't shift by checking the marks at the front. Drive the first pocket screw, then remove the jig and drive the remaining screws. Repeat this procedure at the other end. To keep from scratching the shelf, hold the top spacer in place with your hand or a clamp and then remove the lower spacer. At this point, the bench is assembled and ready for finish. To finish my bench, I applied four coats of Daly's® ProFin™ satin oil with a rag.

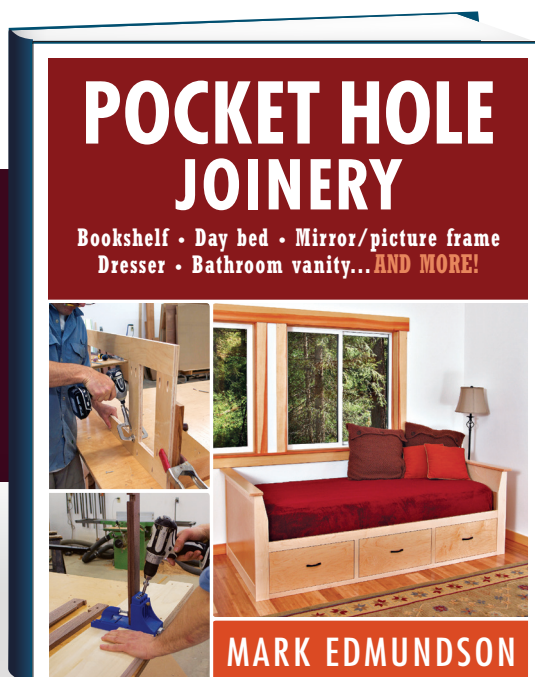


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