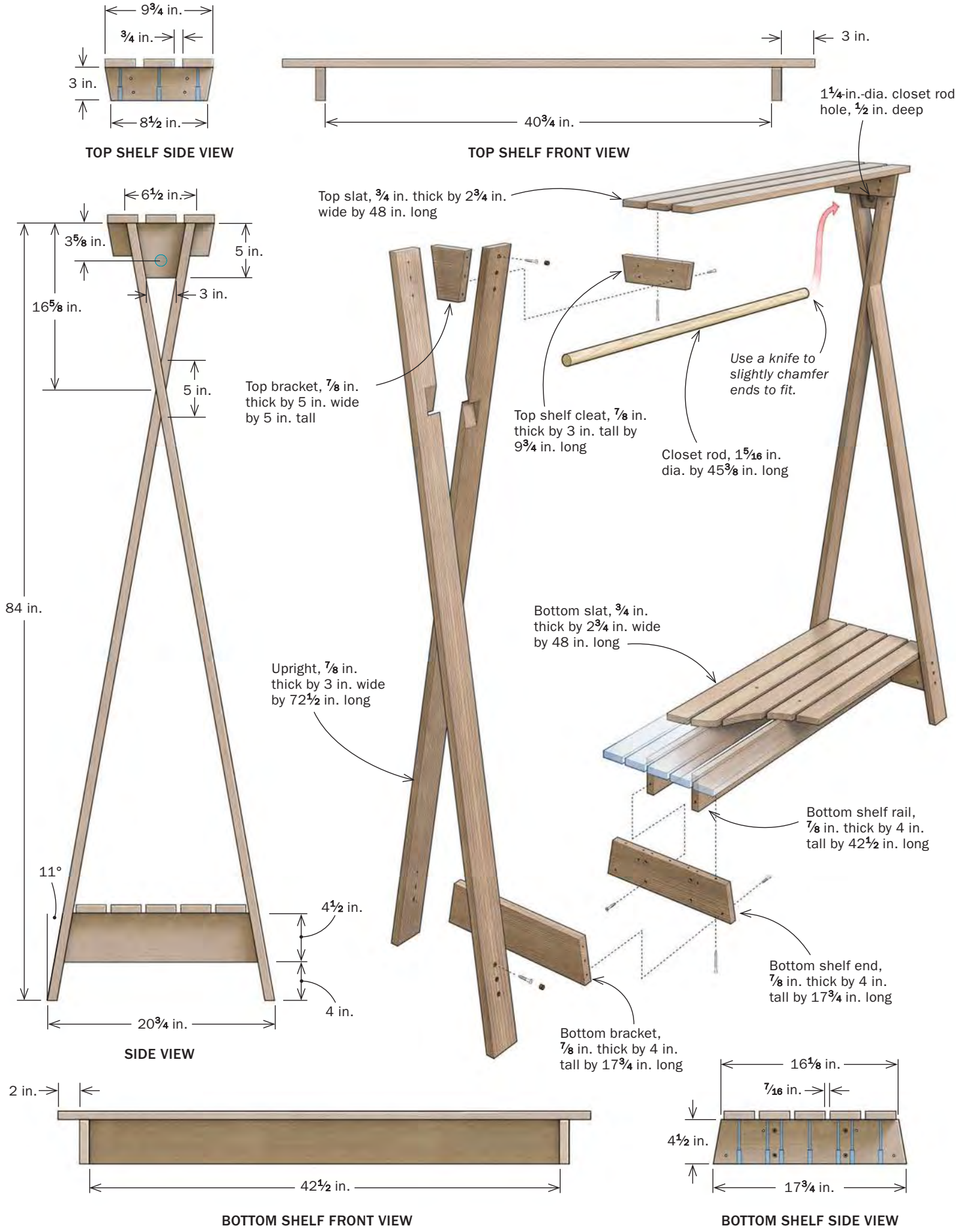
Contemporary Coat Rack

A utilitarian project made with no-fuss construction methods

BY CHRISTIAN BECKSVOORT

A few years ago, I was asked to build a simple coat rack. Nothing fancy—pine would do, since it might be painted. I suggested a Shaker pegboard. No, it needed to be movable, with places for shoes and hats. After a bit of thinking and a few sketches, I came up with X-shaped ends, a shelf below for shoes, a rod for hangers, and a shelf above that for hats. Although the original was white pine, I decided to make the one shown here out of walnut.


9¾ in.
¾ in.
3 in.
8½ in.
TOP SHELF SIDE VIEW
3 in.
40¾ in.
TOP SHELF FRONT VIEW
1¼-in.-dia. closet rod hole, ½ in. deep
Top slat, ¾ in. thick by 2¾ in. wide by 48 in. long
6½ in.
3⅝ in.
5 in.
3 in.
16⅝ in.
5 in.
Top bracket, ⅞ in. thick by 5 in. wide by 5 in. tall
Use a knife to slightly chamfer ends to fit.
Top shelf cleat, ⅞ in. thick by 3 in. tall by 9¾ in. long
Closet rod, 1 5/16 in. dia. by 45⅜ in. long
84 in.
Bottom slat, ¾ in. thick by 2¾ in. wide by 48 in. long
Upright, ⅞ in. thick by 3 in. wide by 72½ in. long
Bottom shelf rail, ⅞ in. thick by 4 in. tall by 42½ in. long
11°
4½ in.
4 in.
20¾ in.
SIDE VIEW
Bottom shelf end, ⅞ in. thick by 4 in. tall by 17¾ in. long
Bottom bracket, ⅞ in. thick by 4 in. tall by 17¾ in. long
16⅛ in.
7/16 in.
2 in.
4½ in.
42½ in.
17¾ in.
BOTTOM SHELF FRONT VIEW
BOTTOM SHELF SIDE VIEW

Crisscross applesauce

Intersecting uprights create the sides that support the closet rod and the top and bottom shelves. Becksvoort cuts the angled half-lap joinery with a handsaw and chisels.

Overlap and mark. *Use your bench to clamp the long uprights into the X-position. Clamp a spacer, the width of the uprights, behind the forward upright to block it out in front of the rear upright (far left). Mark the location of the angle on each of the uprights (left).*

Mark the rest of the joint. *From the points where the angles on the edge reach the face of the upright, carry lines halfway across the face. Connect those two lines, then use a marking gauge to scribe that midway line where the joint ends on the face.*

Angled cuts. *Saw the angles down to the midway point on the face. It's much like cutting the shoulders of a dovetail.*

Photos: Anissa Kapsales. Drawings: John Hartman.

Chop and set. *After sawing the shoulders, use a chisel to chop into the scribe line, and then chip out a wedge of waste. Now you have a flat to rest the back of the chisel on. Repeat until you knock the block free from the upright.*

Clean and fit. *Use a chisel to clean up the joint (above). Test-fit the uprights together (left), and fine-tune the joint until you get a nice snug fit.*

The design of this structure means that it has a bit of side-to-side racking. I drastically reduced that with beefier rail sizes and strategically placed screws. The rack is easy enough to move around, but it also can be disassembled into five separate pieces: two sides, the closet rod, and the top and bottom shelves. It's the perfect piece for an entryway, mudroom, or large walk-in closet.

X-shaped ends are the focus

To lay out the angled lap joints, I stood the crosspieces on end. Using my workbench as a support, I clamped the two crosspieces together and marked the edge of each exactly where they intersected. Then, with a small square, I extended those lines halfway across the faces of the crosspieces. I used a marking gauge to strike a line at the halfway point—the bottom of the lap joint. Although the joints can be cut at the table saw using a dado blade and with the miter gauge set to the angle, I thought it was just as easy to make the cuts by hand with a small crosscut saw. Then I carefully removed the waste with a chisel.

Uprights and cross braces

With the joints cut, I dry-fit the uprights. From there I used a

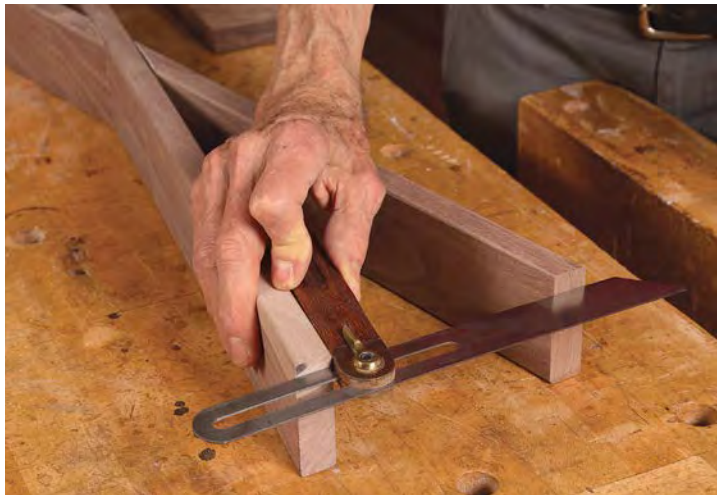
Mark the uprights. *With the crosspieces dry-fit, use a straightedge lined up on the outer corners to mark the angles on both ends.*

It's all about the angles

Because the uprights are crossed, you have to cut angles on each end so they sit flush on the floor and the hat rack slats sit level on top of them.

Trim the uprights. *Becksvoort stacks all four uprights and cuts the angles all at once. He keeps track of the two pairs. For each pair, he first faces the two pieces, then flips one over so each end has the angle opposite. The layout line will be visible on one upright from each pair.*

Mark the brackets. *With the uprights still dry-fit, place the bracket stock directly on the uprights and mark the length.*



Find your angle. *Use a bevel gauge to set the angle between the top of the uprights and their face.*

Cut the angle on the brackets. *Use a bevel gauge to set the table saw's miter gauge, and cut that angle on both ends of the top and bottom brackets.*

straightedge at the top and the bottom of the uprights, lined up at the outside corners, and struck that straight line across the uprights. Cutting the crosspieces at this angle allows them to sit flat on the floor and be flat on top.

I marked the end angle for the top and bottom brackets directly from the dry-fit uprights. This is also the angle for the ends of the top shelf's cleat and the bottom shelf's

Assemble the X's

While the rack knocks down, the two sides do not.

Add holes to the top brackets. *With a Forstner bit at the drill press, drill stopped holes in the top brackets to accept the closet rod.*

Assemble the sides. *Apply glue to the angled half-lapped joint (right) and tap the pieces in place. Then drill clearance and pilot holes and screw the top brackets in place (far right).*

Plug the holes. *When drilling clearance holes for the screws, also cut counterbores for plugs. Glue the plugs in place and cut them flush.*

frame ends. The four brackets are centered on the upright posts, and each is held with screws. I like to plug the holes on any screws that are visible and won't be removed when disassembling the piece into its parts.

Just shelve it

The two shelves are a simple slat construction. The top shelf is made of three slats screwed into two cleats that are placed near the ends of the slats. The slats overhang the cleats, and the spacing between the cleats positions them exactly inside the uprights. They are screwed from the inside into the upper brackets.

The bottom shelf has five slats that get screwed to a simple frame. The frame's two ends land between the lower brackets. The slats get screwed on from underneath and also get two extra screws from the top down into the rails. Those two get plugged because they are visible.

Yes, you can use mortise-and-tenon joints for the rails, and you can glue the shelf slats. However, the screws provide a great deal of stability, structure, and simplicity. That's the beauty of custom work.

Top to bottom

The top and bottom shelves are independent assemblies, with slats on a frame for the bottom and slats on two cleats for the top. Once assembled, they get screwed to the side pieces.

Predrill frame stock. *The bottom shelf consists of a frame with slats screwed in place from underneath. The frame is deep, so you must drill clearance holes for the screws themselves but also deep counterbores so the screws can catch the slats above. With a brad-point bit, first drill the counterbore. Then, with a bit that finds the center where the brad point was, drill for the screw itself.*

Assemble the frame and shelf. *Screw the frame together. Attach the slats from under the frame, one screw at each end of each slat.*

A couple screws in the center. *Two of the slats land on the long parts of the frame, so Becksvoort adds a screw on each for extra security and plugs them.*

I've chosen to make this a quick, no-fuss, simple project.

I finished the piece with my usual oil finish, which looks great on the walnut, but you can also use varnish, polyurethane, or paint.

Keep in mind that if the angles, widths, or lengths are changed to suit your fancy, none of the dimensions will remain the same. Also, whenever I build something, even if I have a drawing or plans, I always take my dimensions directly off the project.

Christian Becksvoort is a furniture maker in New Gloucester, Maine.

Put the parts together

At this point you have two sides, a closet rod, a top shelf, and a bottom shelf. It's time for the final assembly.

Bottom shelf first. *Use the closet rod, clamped in place, to hold the sides upright (left). Then put the bottom shelf in place and screw it to the sides (above).*

Top it off. *While the closet rod is still clamped in place, add the top shelf and screw it to the sides.*