Cedar Garden

Quick-to-make, casual seating designed to beat back the elements

When I was asked to design a bench for a garden at the Chuang Yen Monastery in Carmel, N.Y., my goal was to build something beautiful that would age gracefully outdoors. My first step was to pick a wood that could withstand years in the weather—even without a finish.

My thoughts traveled to the magnificent wooden buildings I had visited in Kamakura, Japan—a historic city brimming with meticulously crafted wooden temples that are hundreds of years old. In Japan, a common wood used for temple and bathhouse construction is hinoki, an indigenous, fragrant variety of cypress that is particularly resistant to decay. It was used to build the Horyu-ji temple outside of Nara, Japan, which is just over 1,300 years old and still in daily use.

Hinoki isn't available in the United States, but an excellent substitute is Port Orford cedar, which is strong, light, exceptionally resistant to decay, and beautiful when left to age in the weather. It's what I used to build the benches for the temple. I left them unfinished, and after one year in the sun, rain, and snow, they're looking great.

As for the design, I was striving for a minimalist but elegant bench that would sit beautifully in the monastery's garden. I settled on a trestle base with thick legs and a single stretcher connecting the two ends. The seat is made of ribs that have a slight curve on their top edge, and beveled ends.

In my shop, my employees and I work together to build furniture. I teamed up with Nic Meehan on this bench, and we'll show you how to make it. It's actually quite easy.

Gentle arc sheds water

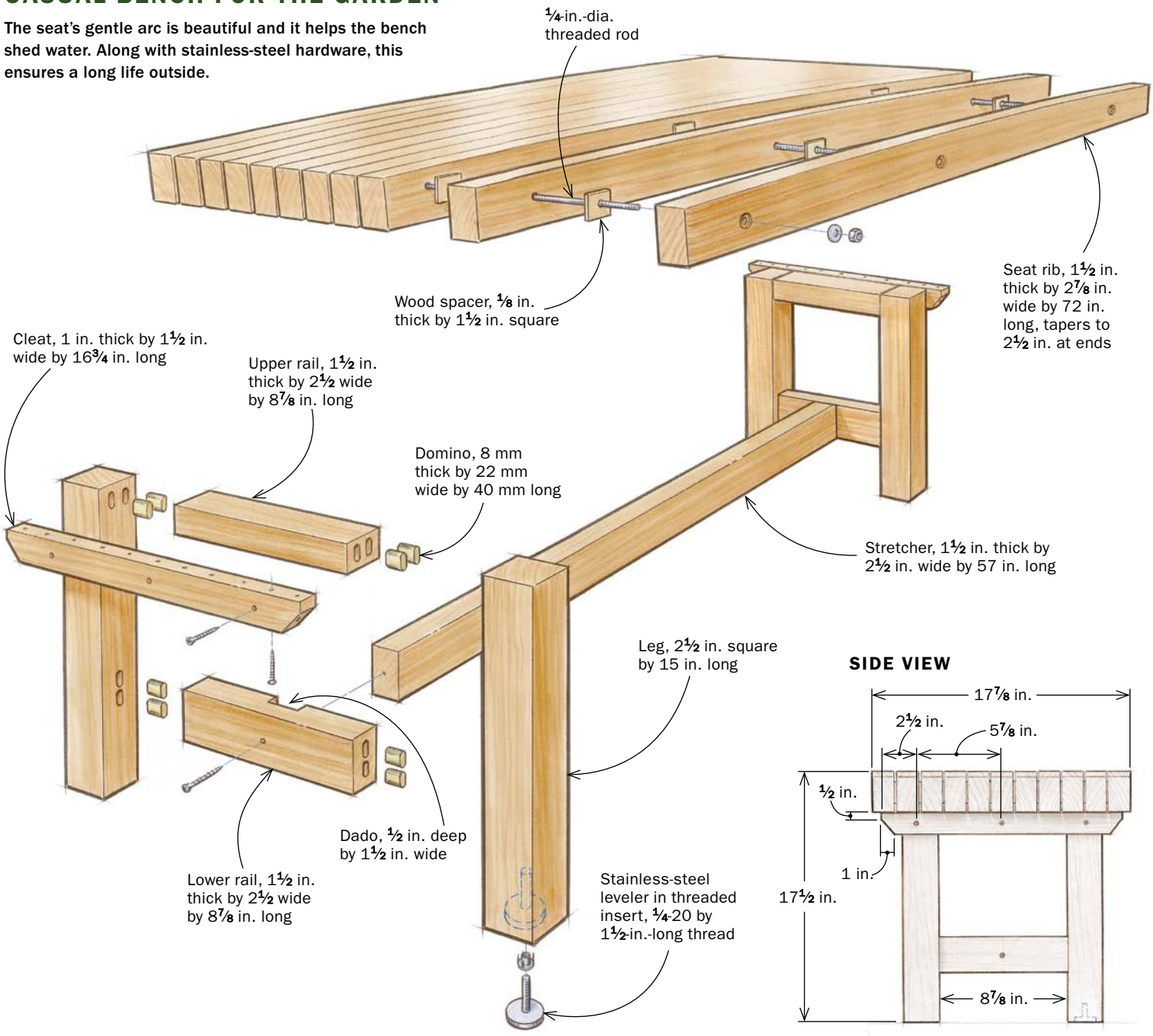
My first goal for the seat was to ensure that it could withstand

Bench

BY JESSICA WICKHAM

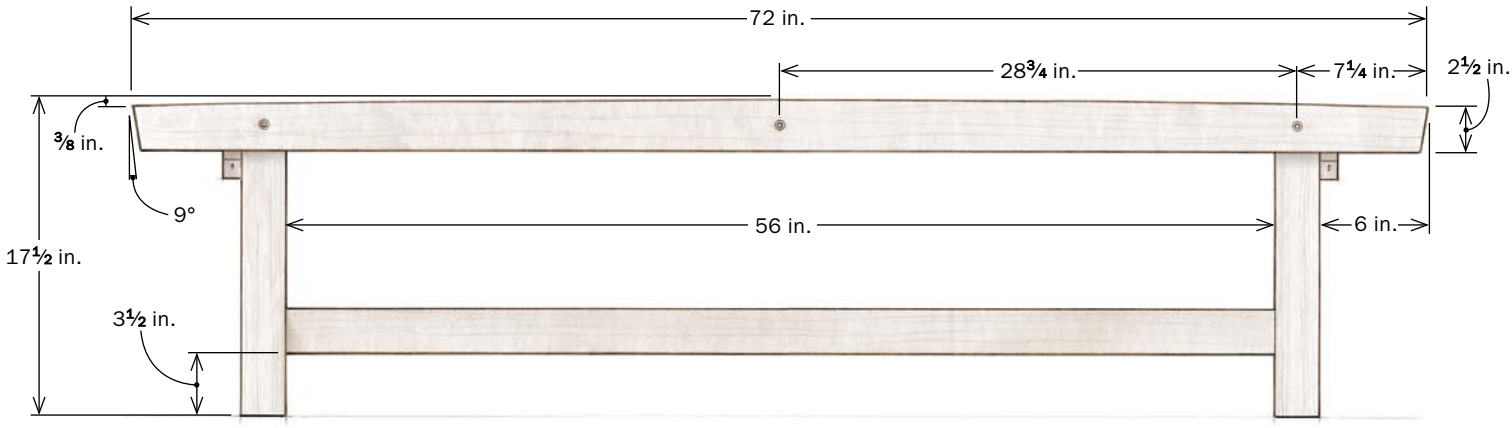
CASUAL BENCH FOR THE GARDEN

The seat's gentle arc is beautiful and it helps the bench shed water. Along with stainless-steel hardware, this ensures a long life outside.



SIDE VIEW

FRONT VIEW



Photos: Matt Kenney; drawings: Dan Thornton

Make and assemble the seat

Comfort is king when it comes to seating, so it's important that each of the seat's ribs have the same shape. A router template delivers the needed uniformity.

Trace the arc on the rib. *After making the template routing jig, use it to trace the profile of the rib (left). Rough-cut the arc at the bandsaw, then use the jig to complete the arc (above). Hold-down clamps lock the rib against a fence, and front and back stops add stability.*

The outside ribs get counterbores. *These should be deep enough to contain the thickness of the nut used to lock the ribs on the threaded rod. Next, drill ¼-in.-dia. holes in all of the ribs for the threaded rod.*

the vast changes in weather that it would experience. Temperatures in Carmel run from extremely hot to extremely cold, and there's plenty of rain and snow. This is why I chose to make the seat from a set of 11 ribs shaped in a subtle arc. The arc encourages water to run off the seat toward the ends, where a bevel causes it to drop to the ground (rather than run down the end grain as it would if the ends were square). Spacers between the ribs create openings that help with drainage, too. Three threaded rods run through the ribs and spacers to keep the seat together.

Start the build by making a template routing jig for the seat ribs. Use the template to trace the shape on each rib. Rough out each rib at the bandsaw, then clamp it into the template jig to rout it flush. Because the ribs are 1½ in. thick, you'll need a pattern bit with at least that much cutting length.

Next, drill holes for the threaded rod. We placed the flat bottom edge of the rib against a long fence on the drill press

Assemble the seat. *Make sure to add the spacers between the ribs (above). The threaded rod should be about 1 in. too long at this point. Drop a bit of Loctite on the threaded rod before threading on the nut (left). This will keep the nut in place through all kinds of weather.*

Build the trestle base

Slip tenons and screws combine to create a base that's sturdy and able to withstand the beating delivered by sun, rain, snow, and anything else the elements might send its way.

Cut a dado for the long stretcher. *Use a stop at both ends of the stretcher to ensure that the dado in each rail is the same width and in the same location.*

Mortise for the slip tenons. *In Wickham's shop, they use a Festool Domino Joiner for the job, but you could use a router or hollow-chisel mortiser.*

Glue up the end assemblies. *Because this bench is for the outdoors, use a waterproof glue. Wickham prefers Titebond III. After assembling the legs and rails, clamp and let the glue dry.*

and used stops to ensure that the holes lined up correctly from one rib to the next. On the two outside ribs, there also need to be counterbores for the nuts. Drill those before drilling the holes for the rod.

Next, make the spacers. I used Port Orford cedar so they'd blend with the seat. Now assemble the seat with the spacers in place, and mark the threaded rods for final length. Pull out the rods and cut them to length with a hacksaw. Reassemble the seat to bevel the ends of the ribs, but to prevent tearout, leave out the spacers. We used a tracksaw, but you could use a standard circular saw and straightedge, too. Pull the seat apart and reassemble it for the last time with the spacers in place.

Build the base and attach the seat

After milling all of the base parts to final dimensions, flip the legs over and drill two holes. One is a counterbore to accommodate a leveling foot, and the other will hold a threaded insert for the leveler's

Stretcher completes the base. *A single stainless-steel screw at each end is enough to keep the stretcher tight in the dadoes.*

Attach the base to the seat

A three-step process creates a strong connection between the seat and base that will last for years.

threaded stud. We used a shop-made jig to guide the drill bit for each hole.

The legs and rails are joined with slip tenons. We use a Festool Domino system for the joinery because of how quickly and easily it gets the job done. There are many other ways to make a slip-tenon joint, so don't get hung up by our technique. The lower rail needs a dado to house the stretcher that connects the two end assemblies. We cut that with a dado set at the tablesaw.

With the joinery complete, glue up the end assemblies. Because this is an outdoor bench, use a waterproof glue, like Titebond III. After the glue dries, bring the ends together with the stretcher. Put some glue in the dado joint and then drive in a screw from the outside face of the stretcher.

Before attaching the seat to the base, make the cleats that help secure them. Now flip the top and center the base on the underside, measuring in from both ends and sides. Place the cleat on the seat, snug against the base. Secure it to the seat by driving a screw into each seat rib. Next, use two screws to attach the top short stretcher to the seat. Finally, screw the cleat to the base with three screws. Use stainless-steel screws throughout.

That's it for the construction. And there's no finish to apply. Give your bench a good sanding, take it outside, level it, and enjoy it as it ages to a beautiful silver gray. □

Jessica Wickham, a furniture designer and maker in Beacon, N.Y., owns Wickham Solid Wood Studio.

Center the base on the seat. *This is easier than lowering the seat onto the base, because you can more easily center the base by measuring in from the edges.*

Attach the cleat to the top. *Drive a stainless-steel screw through the cleat and into each seat rib (left). Screw down the base next. Two screws (one at each end) are all it takes.*

Join the cleat to the base. *Three screws—one into each leg and the third centered between them—complete the joinery.*