

Supercharge Your Rip Fence

Smart base supports a host of essential accessories

BY BOB VAN DYKE

Your table saw's rip fence is an integral part of the tool. It performs the basic task of guiding the workpiece parallel to the blade. Without it, you can't rip wood safely or accurately.

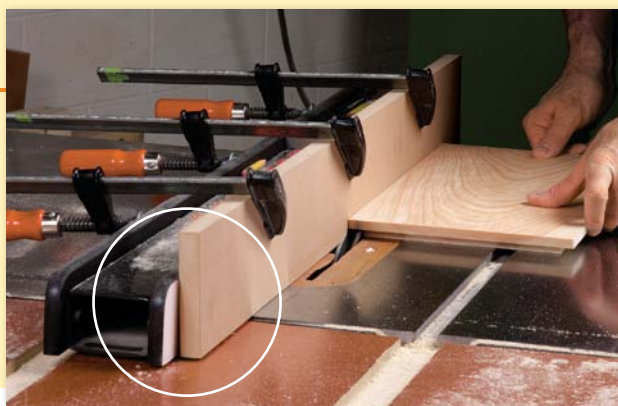
But that's just the beginning of its usefulness. It is also common practice to clamp any number of jigs and auxiliary fences to the rip fence for specific jobs like cutting a rabbet in the edge of a board or a bevel on a raised-panel door. The problem with this is the clamping, and the low height of the fence. Put the clamps low and they hinder the workpiece sliding by; too high, and the extra fence won't stay plumb.

I decided it was time to make something better, so I borrowed an idea from a special fence I had made years ago. What I needed was an auxiliary fence that I could easily attach and remove without damaging the main fence or sacrificing accuracy. I wanted to do it without putting clamps in



Problem

The clamps on this simple rabbeting fence are set high enough to let the workpiece travel freely, but this setup pulls the fence out of plumb, kicking it outward at the bottom edge.



Solution

Clamp this fixture over the tablesaw's rip fence to create a base for a variety of useful fences. The toggle clamps secure the base from the back, leaving a clear path for the workpiece.



RABBETS

Screw a piece of MDF to the base and bury a dado cutter in it to cut rabbets of all kinds. Van Dyke suggests making several of these sacrificial fences at a time to ensure you'll have a fresh one when needed.



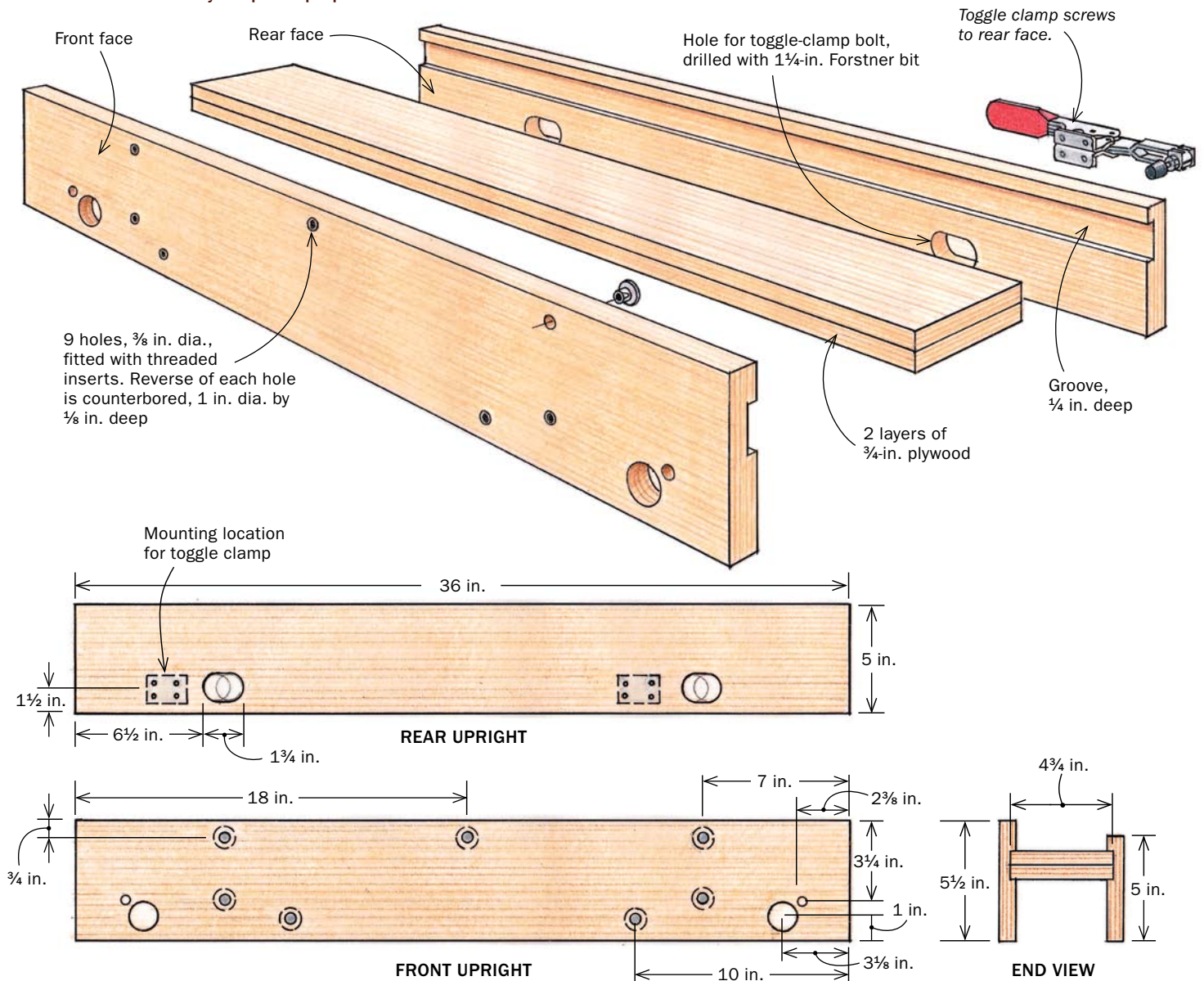
PANELS AND TENONS

A tall fence allows easy panel-raising with no clamps to work around, and a simple tenoning attachment rides the top edge, producing perfect cuts.



Build the base

Made of $\frac{3}{4}$ -in. plywood, two uprights and a bridge fit over the rip fence to serve as an anchor for a variety of special-purpose fences.



Glue up the bridge. The central piece of the base is made from two layers of plywood, glued and nailed together.



Trim to fit. Rip both edges of the bridge to ensure they are straight and parallel, and slightly wider than your rip fence.



Wide grooves house the bridge. Use a $\frac{3}{4}$ -in. dado cutter and make multiple passes to achieve the desired width.



Install the hardware. Use a Forstner bit and a Brad-point bit at the drill press to drill a set of stepped holes. Epoxy a T-nut-style threaded insert into each hole. A dowel and hammer help seat each nut.

the way of the work, and I wanted to make it easy to attach a variety of useful jigs.

No one sets up shop just to make jigs, but I think you'll find it's worth the time to build the base and the add-ons I describe here. You will probably find even more uses as you put the system to work.

This base is the key

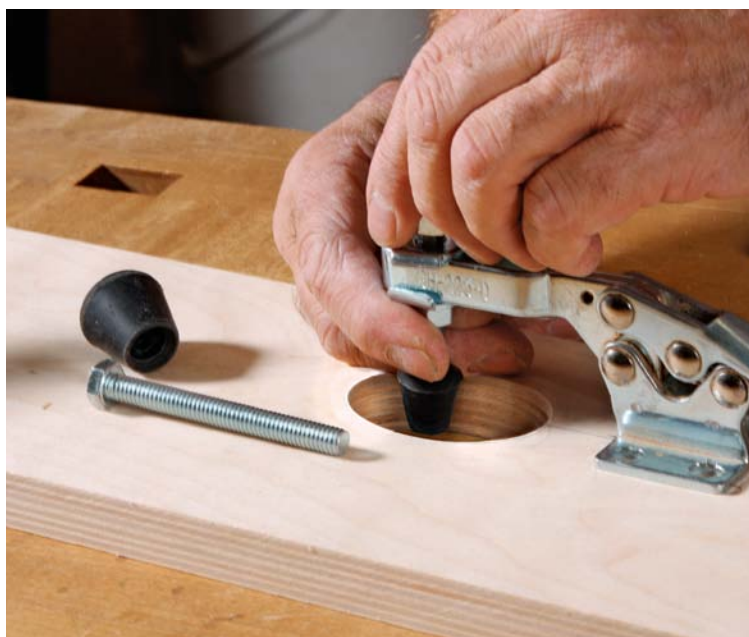
In terms of usefulness, this auxiliary fence base gets the prize. By adding special-purpose fences, common tasks such as cutting rabbets and tenons and panel-raising are all greatly simplified.

The base is made from $\frac{3}{4}$ -in. Baltic-birch plywood, fastened into an H-shape that straddles the saw's rip fence. A pair of toggle clamps applies pressure to the back of the base, drawing the front tightly into place. The base doesn't need to fit the width of your rip fence precisely because the clamps pull it into position.

Start by creating the bridge from two lengths of the plywood. Face-glue and screw or nail the pieces together and then rip the bridge to width. Make sure the long edges are parallel: They will be glued into dados in the backs of the two uprights to form the H.

Cut the dados in the uprights using a $\frac{3}{4}$ -in. dado cutter at the table saw. Take multiple passes to sneak up on the fit.

Before gluing up, use a Forstner bit to drill a pair of clearance holes for the toggle clamps in the rear upright. Replace the adjustment bolts on the toggle clamps with ones that are long enough to reach through the plywood upright to the rip fence. A small rubber crutch tip from the



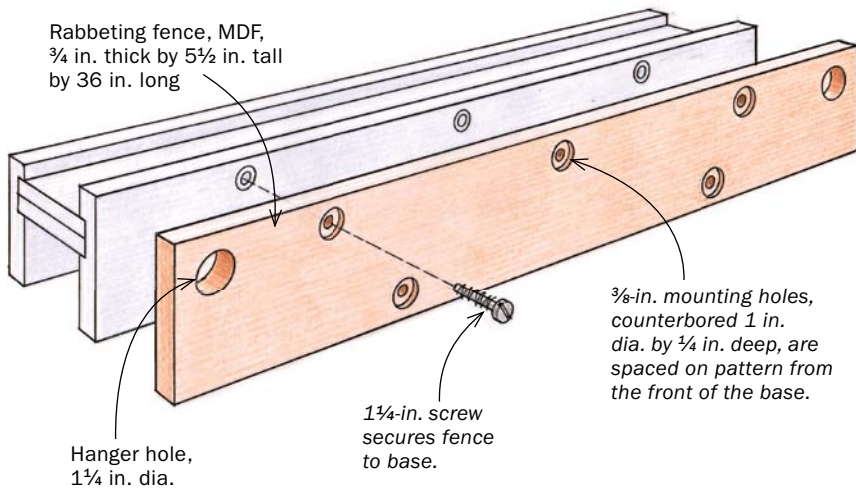
Install the clamps. Van Dyke uses a 1-in. Forstner bit to create an opening that lets the clamp reach through to the rip fence underneath. He extends the clamp's reach by replacing the stock bolt with a longer one and adding a rubber tip from the hardware store.



Glue up the base. Make sure to apply clamp pressure directly over the grooves. Use a square to ensure that the face on the blade side of the base is square with the table surface.

Make a few rabbeting fences

Burying a dado cutter in a sacrificial MDF fence lets you easily adjust the width of any dado or groove you are cutting.



They attach quickly. Each accessory fence is drilled with the same bolt-hole pattern. Installation is a simple matter of driving five screws. The two larger holes are for hanging the fence during storage.

hardware store cushions the bolt head that bears against the fence face.

On the front upright, drill five holes for T-nuts: three evenly spaced across the top and two along the bottom, each far enough from center to avoid touching the blade. The T-nuts provide an easy way of screwing the special-purpose fences to the base. Make a template of this bolt-hole layout so you can transfer it accurately when making the attachment fences.

The value of the base lies in the variety of special-purpose fences you can add to it.

A sacrificial fence for rabbeting

This fence is very simple—just a flat piece of 3/4-in. MDF drilled with counterbored holes. But you will use it all the time.

I make most of the special-purpose fences from 3/4-in. MDF because it stays flat and its smooth surface lets workpieces slide across it easily. It also costs less than the alternatives. While I was set up to make this fence, I cut and drilled a number of extras so they would be ready when needed.

With this fence, it's easy to cut rabbets to custom width. Partially burying a wide dado cutter in it lets you adjust the cut's width simply by moving the rip fence. I also use this fence often as a stop when cutting tenons with a dado set.

To bury the cutter, raise the spinning blade into the MDF fence to the height you need. Then turn off the saw and fine-tune the blade height and the fence location. Don't raise the blade any higher than necessary because a fence with a large cutout won't

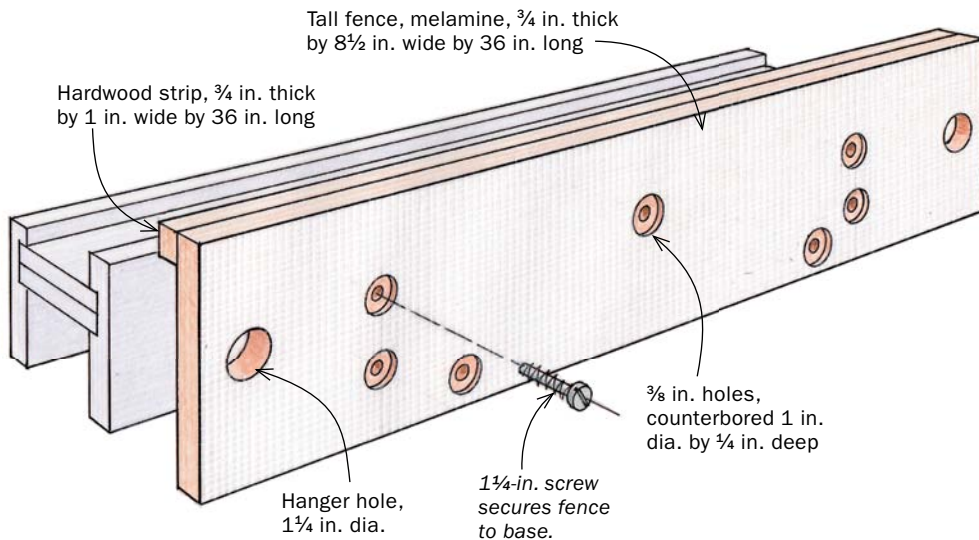


Bury the blade in the fence. Raise the spinning blade slowly into the fence to set the height and width of the rabbet. The arc cut in the fence should closely match the height of the blade to prevent gaps that could catch the stock.



Cut the rabbet. The fence also can be used to cut stub tenons, using the miter gauge to guide the workpiece.

Tall fence is dual purpose



work for smaller rabbets and stub tenons, where the workpiece would dive into the gap between the cutout and the blade.

A tall fence for panels

A taller MDF or melamine fence, this one 8 in. wide, provides extra support for tall work. It is great for cutting bevels on the face of a raised panel or drawer bottom. A push block a few inches above the blade gives you a solid and safe grip on the workpiece as it travels past the blade. For the greatest support, let your right hand ride the

top of the fence as it grips the workpiece.

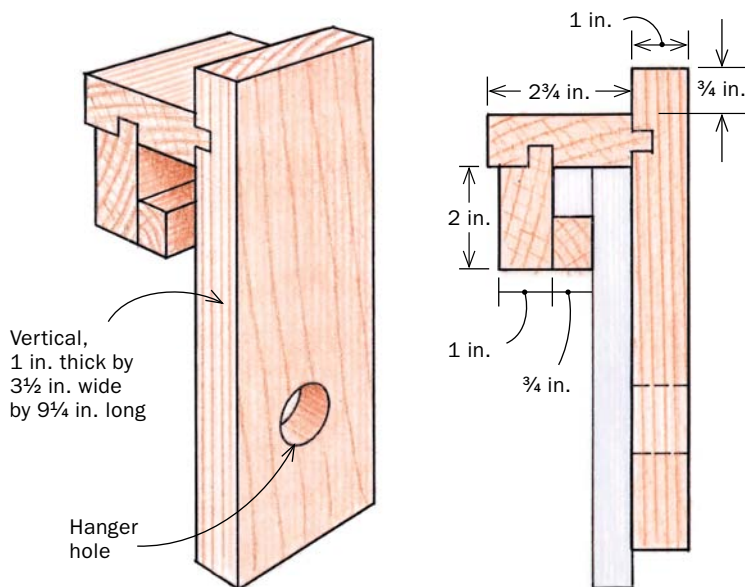
The fence and sliding backer block support the narrow workpiece, keeping it perfectly vertical. The sliding block straddles the upper edge of the tall fence, which is built out with an attached runner strip. The top of the slider actually wraps around the runner strip—an important safety feature that prevents the fixture (and the user's hand) from diving in toward the blade. □

Bob Van Dyke teaches woodworking at Connecticut Valley School of Woodworking.

Perfect for panels. Multiple fasteners keep the fence plumb despite its extra height. Guide the workpiece from its trailing edge and use a push pad to hold it firmly against the fence.

TENONING JIG

This push block wraps around the fence's top runner, keeping the narrow workpiece perfectly vertical as you slide it forward.



Tenons, too. The runner along the top edge holds a push block for cutting tenons.