



# Rethink the Rabbet

How you cut it should depend on how you'll use it

BY STEVE LATTA

‘But it’s just a rabbet!’ my students sometimes complain. Why overthink it? After all, most folks follow the standard protocol: on the tablesaw with a dado head buried in a sacrificial fence. However, the first approach is not necessarily the best. While there’s no doubt the tablesaw works, there are factors that might encourage an alternative method. The key question is, what matters more: what’s removed, or what remains?

## When depth to the shoulder is key

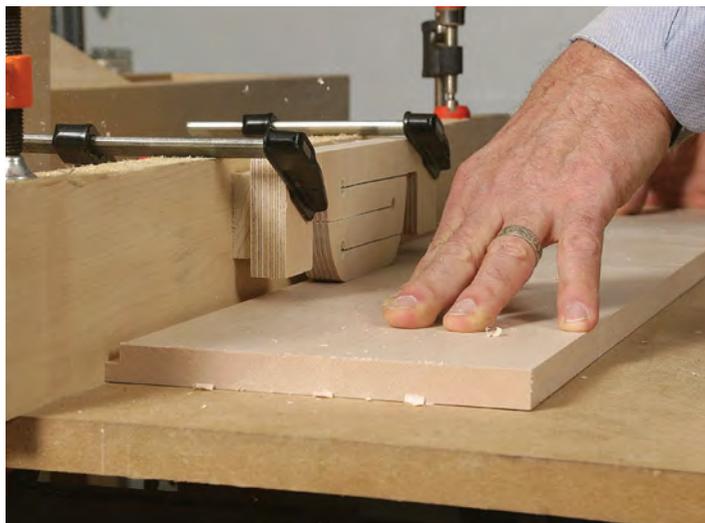
The standard rabbet has two important parts, the shoulder and the tongue. Depending upon the application, one might carry more weight than the other. Consider a bookcase with a face frame. The case sides have a rabbet along the rear edge to receive the back. The back needs to fit between the rabbets, so the depth of the rabbets needs to be consistent. A little variation in the thickness of the tongues, whether because of varying stock thickness or inconsistent downward pressure when cutting it, isn’t an issue as long as the back fits. Here the tablesaw method works fine.

By burying a dado stack in a sacrificial fence, I can easily set both the width of the rabbet and the depth to the shoulder. It’s a safe operation. Having said that, never, never, never cut a rabbet with the stock between the dado stack and the fence. If the board pulls away from the fence, the

## TWO WAYS TO CUT A RABBET



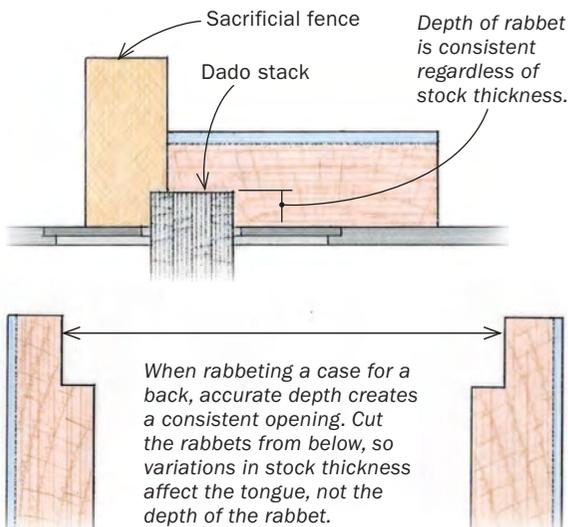
**Tablesawn rabbets cut from below.** Cutting from the bottom face ensures consistent depth to the shoulder. This is great for things like the back edges of case sides, where you need the back to fit between rabbets.



**Router table with a slot-cutter from above.** By removing wood from the top face, you leave a tongue that’s consistent in thickness, a must when it will be fitted into a groove or dado.

## CUT FROM BELOW WHEN THE RABBET DEPTH MATTERS

When you want rabbets that don't vary in depth, cutting from below, like with a dado stack at the tablesaw, is a time-tested method.



**Install a dado stack wider than the rabbet.** This ensures you'll have enough blade to cut the joint in one pass. The rest gets buried in a sacrificial fence.



kickback from the dado head will take it across the room, wreaking havoc with the stock and any body part that gets in the way. An acquaintance of mine lost his big toe after cutting this way; the doctor had to move it to where his thumb had been.

Some folks cut rabbets from below using a router table with a straight bit buried in a fence, or a bearing-guided rabbeting bit. These methods work, but since they cut from the bottom, the emphasis is again on what's being taken away rather than what remains.

I almost never rabbet with a router hand-held. The router weighs too much and is too awkward, and the contact area between the tool and the stock isn't large enough to provide good stability; running small pieces this way borders on insanity.

### When the tongue is important

Back to the hypothetical bookcase. Those same case sides have a rabbet in the front that fits into a groove on the face frame's stiles. Here, the tongue's thickness is criti-

cal, meaning what remains is far more important than what's removed.

In these instances, where the tongue's important, you want to cut the rabbet into the top of the stock. A shaper works best, but I can get the same results using a router table and a slot-cutting bit. Doing so guarantees the thickness of the tongue. Any variations will be in the rabbet's depth, where it won't matter. Plywood is known for its variations in thickness; handplaned stock often has discrepancies as well. Running the cutter above negates these since the distance between the bottom of the bit and the table, which determines the tongue's thickness, remains the same.

For the router-table method to be both safe and successful, you must use the proper bit. Although a rabbeting bit seems logical, most are not designed for this application. On most rabbeting bits, the carbide cutter extends proud only on the top and has relief angles ground in the carbide to reduce burning. The bottom of the bit is often an afterthought, with the main body sometimes extending below the actual cutter. Some have a shear cut which, although beneficial when cutting from below, impedes the cut if used above since it directs chips to the base of the cut, which is exactly where you don't want them to be. Also, many rabbeting bits do not have a long enough shank for the cutter to get to the proper height without

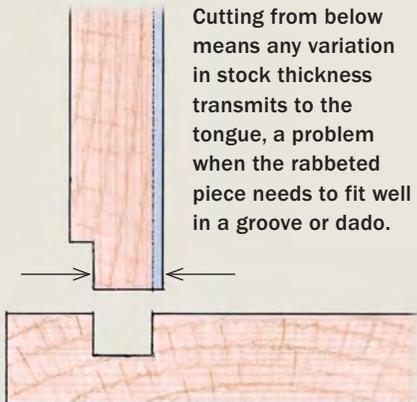


**Clamp a sacrificial fence to the rip fence.** A secondary fence made from a strip of MDF lets you expose only as much blade as you want without damaging your rip fence. Position the fence over the blade and slowly raise the blade until it is slightly lower than the finished cut to create a recess in the fence.



**Dial in the dimensions of the rabbet.** Start by adjusting the fence to set the rabbet's width. Then raise the blade to the final shoulder height. Keep downward pressure on the stock to ensure a consistent rabbet.

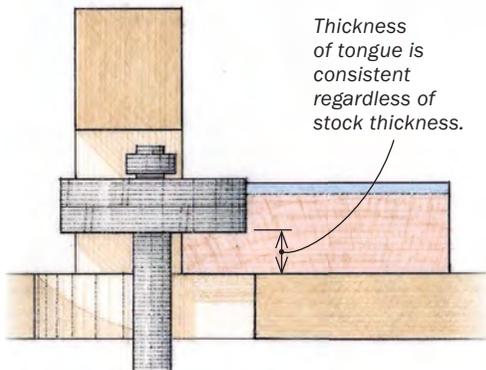
### A CONSISTENT SHOULDER DOESN'T MEAN A CONSISTENT TONGUE



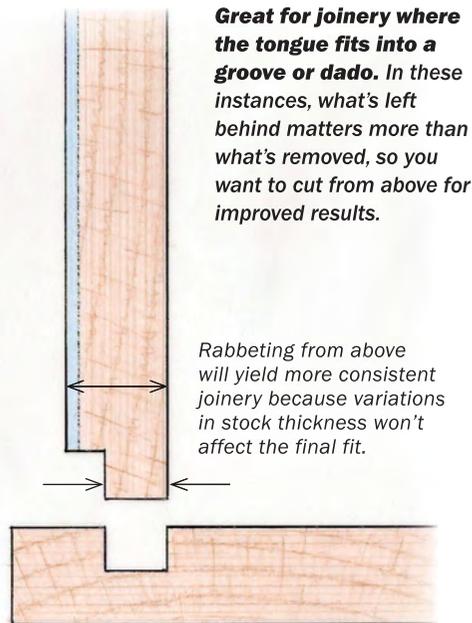
**Handplaning is a fix, but it's less than ideal.** Even if you don't plane too far, the extra time adds up with each rabbet you need to adjust.

# CUT FROM ABOVE WHEN THE TONGUE THICKNESS MATTERS

Install a slot-cutting bit and cut from above when you want tongues of uniform thickness.



**Cut the rabbet with a push pad.** Latta's push pad has a thick, rubberized surface that grips well while pushing the stock both down and against the fence. If blowout is a problem, use a backing block behind the stock.



## USE SLOT-CUTTING BITS

**Stackable slot-cutters are versatile.** Most slot-cutting bits are this variety. They consist of an arbor that can have a series of cutters and bearings mounted to reach the desired depth of cut. These cutters range from  $\frac{1}{16}$  in. to  $\frac{5}{16}$  in. thick depending on the make. Since they can be stacked, a variety of setups is possible.



**Fixed slot-cutters have the right geometry too.** You can't stack these, but they have the correct carbide shape: The blade extends past the bottom and is  $90^\circ$  to the face or is only slightly angled. The carbide has relief bevels to reduce burning and give a clean cut.



**Bury the bit in a fence to limit tearout.** Clamp one end of the fence, turn on the router, and pivot the fence into the cutter for zero-clearance support (above). Make the clearance hole through the fence comfortably taller than the bit and wide enough so only the carbide will contact it. Using markings on the end of his ruler, Latta adjusts the fence to set the width of the rabbet (above right), and clamps the second end in place. Then he sets the thickness of the tongue measuring from the bottom of the bit (right).

seriously compromising how much of the bit is in the collet.

For these operations, I use a slot cutter with a ½-in. shank long enough to fit completely into the collet. If I need extra length I use the Whiteside A220B Arbor, which has a 4-in.-long shank. Instead of a shear cut, slot-cutters have carbide 90° to the bit's face, and the carbide extends above and below the body. Many use stackable cutters. Whether you're using single or stackable cutters, it's important to use a router with the necessary horsepower, 1½ hp as a minimum.

Edges can tear out if the grain is not in your favor. However, this can easily be controlled with a zero-clearance fence. Don't size the opening so small it interferes with the bit's body when you raise or lower it. Remember, the carbide does the cutting, not the body of the bit.

Running the cutter above the stock clearly has a greater potential for injury. As a result, I always—without exception—use a plywood guard, which as a perk also serves as a hold-down. Add spacers behind the guard to move it away from the cutter, preventing damage. □

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## ADD A GUARD FOR SAFETY AND CONSISTENT CUTS



**Add shims to the guard.** The guard shields your hands from the bit. Alternating slots in the guard allow it to function as a hold-down as well. To prevent the bit from contacting the guard, Latta adds two shims using double-face tape.



**Clamp the guard to the fence so it presses down firmly on the stock.** To ensure good pressure, have the workpiece in place when installing the hold-down. You want firm pressure, but don't pinch the workpiece so much it's immobilized.