

## Work more safely with featherboards

THEY KEEP WORKPIECES ON TRACK AND YOUR HANDS OUT OF HARM'S WAY

BY BOB VAN DYKE

A woodworker's third hand is often a featherboard—an accessory that guides workpieces through woodworking machinery. Featherboards are made of plastic or wood with thin fingers cut into an angled end. Mounted to a fence, they push a workpiece snug against the table. Mounted to a tabletop, they keep a workpiece tight against the fence. Like a hand moving over a bird's feather, a workpiece fed past a correctly positioned featherboard will only move easily toward a blade or bit, and is prevented from kicking back.

Featherboards add accuracy and consistency to many types of cuts made on a tablesaw, router table, or bandsaw. They also

### Three types

Store-bought and shopmade featherboards abound. The best choice for a particular machine setup depends on a number of factors.



#### MAGNETIC FEATHERBOARDS

Rare earth magnets make these a go-to choice for metal tables.

allow woodworkers to keep their hands away from the blade or bit—and that makes for safer and cleaner cuts.

There's a variety of featherboards, some store-bought and others shopmade. If you have none, start by using the shopmade featherboard—it will handle any situation. Adding the other two styles to your collection makes some operations even easier, making you more likely to reach for a featherboard when you need one.

#### At the tablesaw

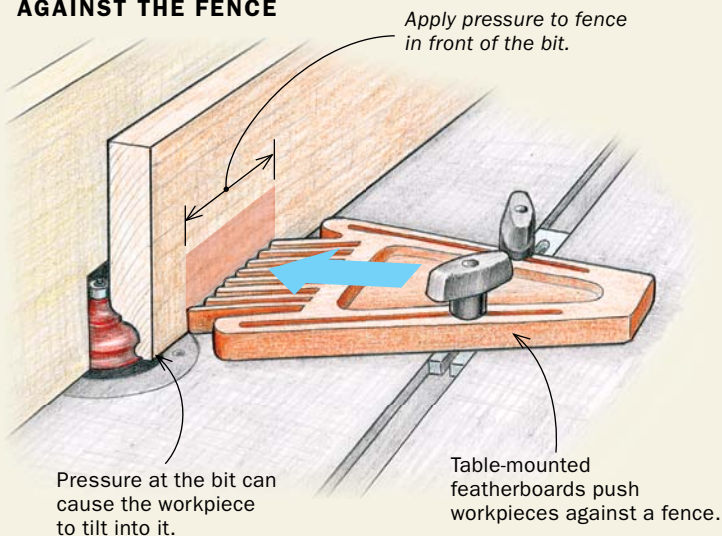
I frequently use a tablesaw and dado blade to cut grooves and rabbets. Adding a featherboard makes those cuts more accurate

### Featherboard basics

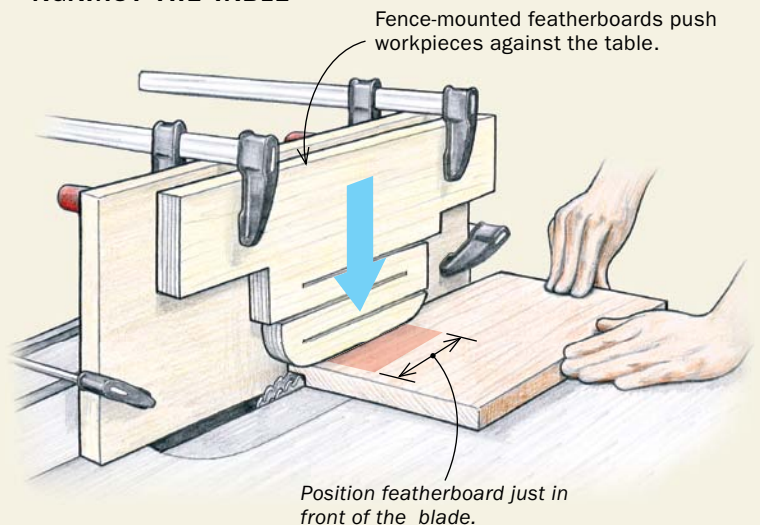
In general, place most or all of the featherboard ahead of or above a cutting edge, rather than right over it or past it. This is critical on cuts like rabbets or molding. When no material is left against a fence or table to resist the

featherboard's pressure, a workpiece can dive into the bit. When ripping, make sure that *all* of the pressure is ahead of the blade. Otherwise, it will jam the offcut against the blade, possibly causing the piece to kick back violently.

#### AGAINST THE FENCE



#### AGAINST THE TABLE



### SLOT-MOUNTED

A good option for tables and fences with miter slots or T-tracks.



### SHOPMADE

You have to make these yourself, but this three-cut type is quick and easy, and works for any situation.



and consistent. To cut a groove in the edge of a rail or stile, a single featherboard attached to the tabletop will ensure a workpiece stays flat against the rip fence. To position it, hold the workpiece against the fence and set the featherboard's fingers against the workpiece, just in front of the blade.

For cutting grooves in a longer workpiece, such as a drawer side, add a second featherboard to the outfeed side. It will prevent the workpiece from skewing away from the rip fence as it exits the blade. With both of these cuts, a store-bought, magnetic featherboard is easiest to set, but it won't work on an aluminum- or granite-topped table saw. In those cases, slot-mounted or shopmade featherboards will work.



**The third cut's a charm.** Van Dyke prefers three-cut featherboards to the traditional type with many "feathers." Make one by cutting two kerfs at one edge, stopping just shy of the end. Then cut a third kerf starting from the opposite edge, between the other two. Then cut a slight curve along the edge.

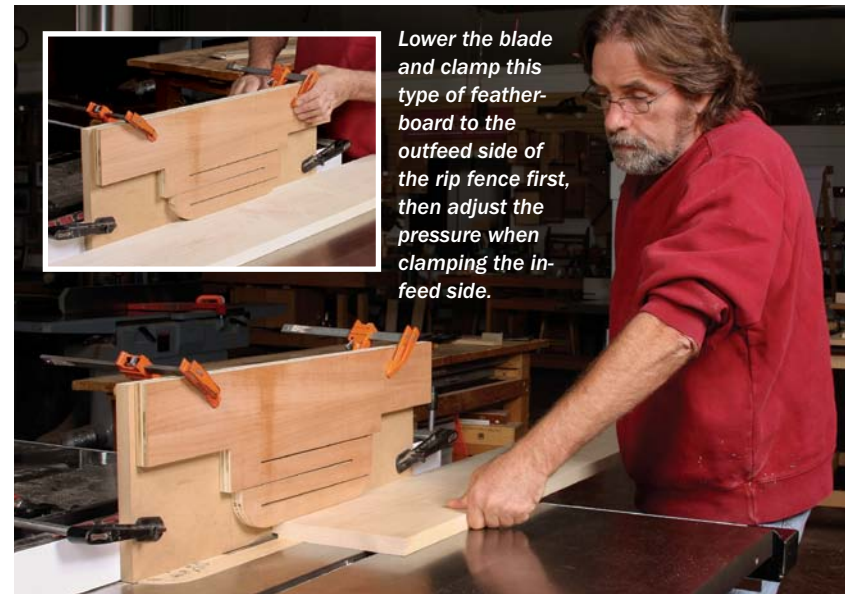
## At the tablesaw

### RIP ACCURATE GROOVES



Set the workpiece against the rip fence and butt the featherboard against it. Use medium pressure: The workpiece should be snug against the fence but shouldn't stick or bind.

### CUT CONSISTENT RABBETS



Lower the blade and clamp this type of featherboard to the outfeed side of the rip fence first, then adjust the pressure when clamping the in-feed side.

## At the tablesaw continued

### ADD SUPPORT FOR LONG PARTS

For long pieces like drawer parts, a second featherboard prevents the workpiece from drifting off the rip fence.



When cutting rabbets—where the depth of cut must be consistent—clamp a shopmade featherboard to the rip fence to keep the workpiece snug against the table as it moves. In this case, I prefer a featherboard made with just three cuts—a technique I learned from renowned teacher Will Neptune. Set the featherboard just in front of the lowered blade and place the first clamp on the outfeed side of the fence. Then pivot the

featherboard into the workpiece using medium pressure. Use a second clamp on the infeed side. Position the featherboard over the blade and the infeed side of the fence, with the bulk of the pressure just before the leading edge of the blade. This assures an even cut and prevents the workpiece from pivoting.

To cut rabbets on narrower pieces, start with a wider workpiece. Rabbet the edge and then rip the piece to width.

For some cuts, use blocking to raise a featherboard off the table slightly—a technique that helps in making vertical cuts, like the bevels on raised panels. This prevents the workpiece from tipping, and moves the pressure away from the blade so that cutoff pieces won't be forced into the blade, which could kick them back. For blocking, screw a shopmade featherboard to an L-shaped base and clamp the base to the table.

Beginning woodworkers tend to overuse featherboards when ripping on the tablesaw. I use them only for cumbersome or repetitive cuts, such as ripping 30 pieces of 6-in.-wide stock down to 4 in. wide. In those cases, a featherboard will prevent your hand from accidentally touching the blade if your attention wanders. Remember to set the featherboard directly in front of the blade to avoid kickback.

### At the router table

Featherboards are also a frequent companion at the router table. I often use them mounted to a fence to keep workpieces flat against the table. Many commercial router tables and fences come equipped with T-tracks, miter slots, or both, making

### RAISE THE FEATHERBOARD FOR PANELS

For raised panels and tall workpieces, move the featherboard above the blade and use a tall auxiliary fence.



**Start with a base.** Two pieces of plywood make a solid foundation for a featherboard.



**Watch the length.** Make the base long enough to be clamped to the tablesaw's edge.

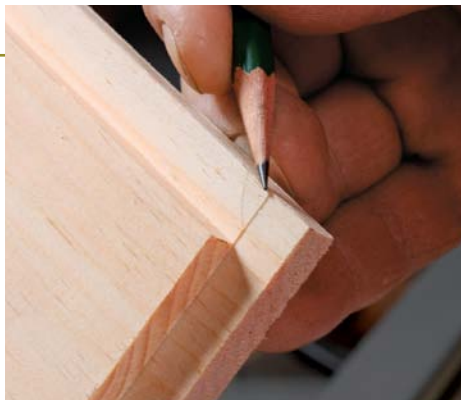


**Keep it vertical.** The featherboard keeps the panel pressed snugly against the fence.

## At the router table

### HAPPY RABBETS

*Neglecting a featherboard when rabbeting a panel can leave inconsistent cuts. Stepped surfaces are a telltale sign of cuts made with uneven pressure.*



slot-mounted featherboards a good option. But if your router table lacks slots, shopmade featherboards clamped to the table or fence also work well—I use them on my own shopmade router tables.

When routing rabbets, I use a single featherboard attached to the fence. Position it as just as you would with a tablesaw, with the bulk of the pressure from the featherboard focused on the infeed side of the table, just in front of the leading edge of the bit. Use the same technique for other operations where the depth of cut is critical.

Attach a featherboard to the router table when cutting molding profiles. The featherboard will keep the workpiece



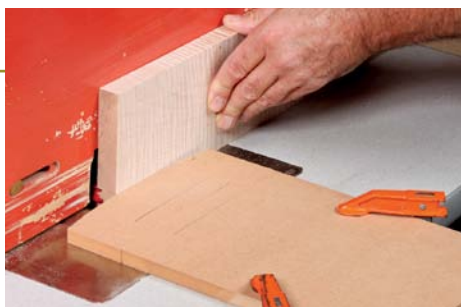
**Lock it down.** Slotted featherboards attach to the T-tracks on some router-table fences, but you can use shopmade featherboards if your fence has no grooves.



**Vanishing act.** The step disappears when a featherboard is used.

### CHATTER-FREE MOLDINGS

*For making moldings on the router table, add a featherboard for burn-free, consistent cuts.*



tight against the fence and leave a more consistent, chatter-free cut. For taller pieces, use the blocking technique to raise the featherboard over the bit.

Some operations at the router table require featherboards attached both to the fence and table. The inside molding—called sticking—for a cope-and-stick door frame is a typical example. The double-featherboard setup will make more consistent cuts, reduce chatter, and stabilize the workpiece as it exits the bit. The same setup also helps in routing very thin stock, but leave enough room to use a push stick.

### ACCURATE PROFILES

*Thin stock, like the parts of a cope-and-stick frame, needs multiple featherboards. A push stick helps, too.*



### Resawing help

Featherboards will help when resawing stock on the bandsaw. Place the stock against a resaw fence, and butt a featherboard against it, just in front of the blade. A magnetic featherboard works best for metal tables, but shopmade and slot-mounted featherboards should also do the trick.

Regardless of which style of featherboard you use, these accessories will add accuracy and safety to your woodworking. □

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