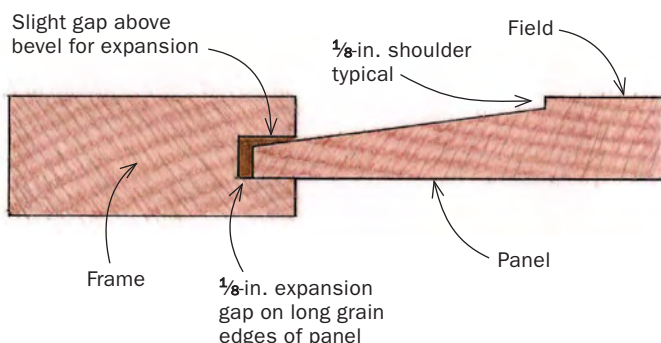




Traditional frame-and-panel door

PART 2: RAISING A FIELDED PANEL

BY BILL PAVLAK

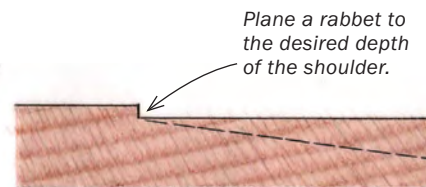


You don't need all the tools that you think you do. I wish that wasn't one of the toughest lessons in woodworking, but for a lot of us, it is.

When I first started making furniture, I found something irresistible about raised-panel doors. Iconic without being irrelevant, intimidating without seeming unapproachable, they captured my attention, and I wanted to make some as soon as possible. In particular, I wanted to create the raised and fielded panel with a panel-raising plane. Maybe I just wanted a fancy new tool. Well, I definitely wanted that, but I lived in something of an antique-tool desert at the time, and the decent online options were all priced beyond my budget—especially for such a specialized tool destined for only occasional use.

A couple of years and a number of cabinet doors later, I started working at Colonial Williamsburg, where I was eager to gain access

Start with a rabbet



Score the width and depth of the bevel.

A crisp, deep line along the edges of the face of the panel is essential to avoid torn fibers, so mark these lines (left) even if your plane has a cross-grain nicker. Then scribe the bottom of the bevel (right). Note that this is the depth of the bevel, not the rabbet. The depth stop on your rabbeting plane will determine that.



Rabbet the ends first.

Set the depth stop to cut a rabbet a little under $\frac{1}{8}$ in. deep. Start with the cross-grain ends since any blowout will likely be planed away when you rabbet the edges. Keeping the shoulder 90° should be your priority. Hang the board slightly off the bench so it doesn't interfere with the fence.

to a shop full of good hand tools. I distinctly remember being excited about checking out the shop's panel raisers on my first day, only to discover there weren't any. My surprised "Why not?" was answered with something to the effect of "We don't need them; most raised panels are just beveled rabbets, so we use rabbet planes."

Instead of feeling relieved that I could knock one tool off my wish list, I was kind of disappointed. But I got over it pretty quickly. A rabbet plane is essential for woodworkers who choose to use hand tools, and its versatility really shines in crafting raised panels without added jigs or fixtures. A rabbet plane gives you an easy, effective, and efficient way to cut a raised and fielded panel, since it allows you both to rabbet for the field and, when it is tipped, to cut the subsequent bevels.

Many types of rabbet planes are available, and while any will work for raised panels, the best have skewed blades to make cross-grain work cleaner. With a sharp skewed blade you should only need limited sanding or scraping—if any—to get the surface finish-ready. If you are limited to a plane with a straight iron, follow the tried-and-true principles of keeping the



Rabbet the edges next. There's a chance that you'll be going against the grain on one side, but a sharp skewed blade set finely should produce acceptable results. Again, maintaining a square shoulder is your main aesthetic concern.

Bevel to fit the groove

Set the fence a hair under the length of your bevel. The bevel will be longer than the rabbet is wide. Still, move the fence in about $\frac{1}{32}$ in. from this dimension to reduce the risk of catching the raised field and marring its shoulder.



Tilt the plane to bevel the ends until they fit in the groove. Guess the correct angle at first, then check your progress by eye and feel after several passes. Adjust the plane's angle as necessary and continue. Eventually the plane will register itself, right or wrong, so check your work regularly.



blade finely set and extra sharp. This will get you close enough to finish things out with light scraping and sanding.

My preferred rabbet plane is a moving fillister. It adds an adjustable fence to the mix, which brings increased accuracy and easy repeatability. A lot of metal-bodied rabbet planes are essentially moving fillisters. Whether wood or metal, something with a $1\frac{1}{2}$ -in. maximum width of cut is ideal, though $1\frac{1}{4}$ in. can work, too. Depth stops are nice as well.

Raised and fielded

Raised panels come in a great variety of styles, from intricate, molded profiles to unadorned bevels. The design featured here is the type I encounter most often on American period furniture (and the type I prefer to create). Some folks worry that an angled bevel instead of a flat tongue around the perimeter



Bevel the edges, spot-treating the corners if necessary. On top of having these bevels be consistent and smooth, you want them to intersect with the cross-grain bevels and produce a nice, clean, straight line from the corner of the raised field to the corner of the panel.



Skip the rabbet for fast work

For drawer bottoms and other rough work, skip the shoulder and don't fuss about clean bevels. For those parts, the panel just needs to fit in the groove.

Scribe only the depth of the bevel. There's no defined field, so simply scribe the depth of the bevel, ensuring it fits into the groove. If you want to mark the width of the bevel, do so in pencil to avoid a score mark on the face.



Plane the bevels. A bench plane works fine here. Since the goal is a panel that fits, not one with perfect bevels, a fence is unnecessary. Skew the cut to help minimize blowout when planing cross-grain.



Install the panel. On drawer bottoms, only one end needs to be beveled since there's no groove in the drawer back. Instead, the bottom extends over the narrow back and is nailed to it.



might inhibit wood movement. But I've found that as long as you don't aggressively jam the panel into the frame during construction or glue it in place, there will be room for seasonal movement. A typical cabinet door panel is only about $\frac{1}{2}$ in. thick, so once you bevel off the edges you're left with almost a knife edge around the panel. This is perfectly fine. Indeed, there are only two crucial dimensions to guide your design. First, ensure a $\frac{1}{8}$ -in. gap between the long-grain edge of your board and the bottom of the groove for expansion. Second, make sure the bevel's angle, and therefore its thickness, will allow the board to enter the groove without bottoming out or preventing the frame from coming together.

Bevels only with a bench plane

Sometimes a rabbeted field is out of the question. Perhaps you are without a rabbet plane, or you just need a rough-and-ready drawer bottom. Either way, forgo the shouldered field and just bevel the panels



with a bench plane. If the panel is for a frame-and-panel, I work as carefully as possible. But for drawer bottoms, I simply mark the depth of the bevel and plane without much fuss to save time and effort.

As for design considerations for drawer bottoms, in the 18th century there was no right way to run the grain. You see it side to side or front to back on pieces of the highest quality. On a little drawer like the one pictured, I'm fine with running the bottom's grain front to back. First, the bevel and groove will still allow for expansion and contraction. Second, running the grain this way makes it less likely that I have to glue up a bottom, which saves time. □

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