1 SIDE-HUNG DRAWERS STOP THEMSELVES

Side-hung drawers eliminate the need for traditional runners, kickers, and dividers. Instead, they rely on a groove in the drawer side and a runner attached to the inside of the case. When the runner hits the end of the groove, the drawer stops. The trick, of course, is to position the end of the groove and the front of the runner so that the drawer is perfectly flush in front.

Photos, except where noted: Anissa Kapsales

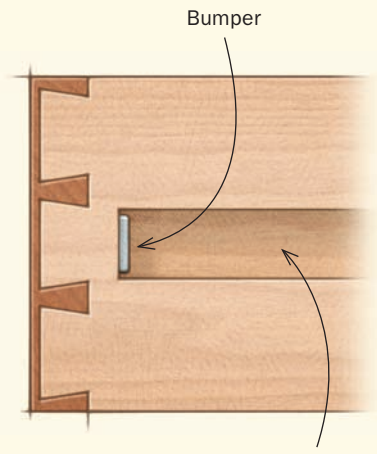
Stop Those Drawers

6 techniques to keep drawers flush year-round

BY CHRISTIAN BECKSVOORT

It's common knowledge among woodworkers that your drawers are an indicator of your craftsmanship. A close examination will reveal if the dovetails are well cut and if the drawer fits the pocket snugly and glides smoothly. But a quick glance is all you need to see if the drawers look good and are stopping in the right place. I prefer the look of flush-front drawers, but keeping drawers consistently flush with the front of a case can be tricky. We've all seen drawers that are slightly inset in the summer and a bit too proud in the winter. This is a particular problem when building solid-wood slab cases, as opposed to frame-and-panel or plywood furniture. However, there are several stop options available. Here are a few methods that I've seen and used for many years.

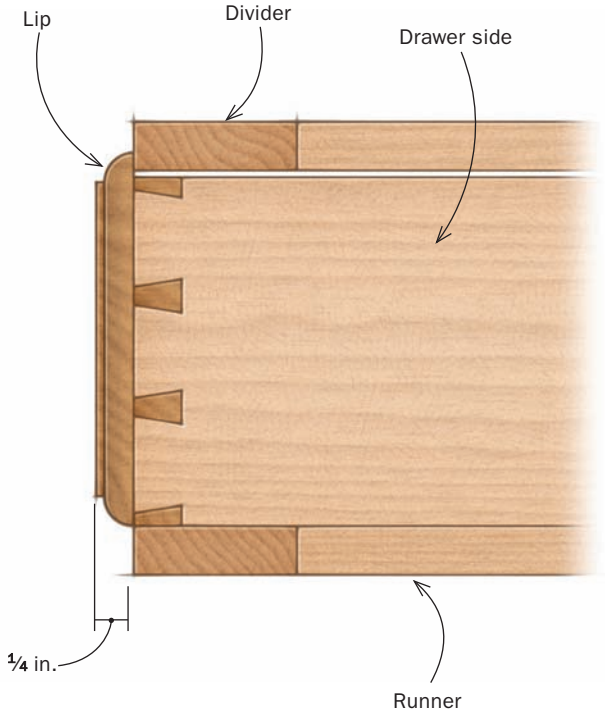
Contributing editor Christian Becksvoort will be a featured presenter at Fine Woodworking Live 2017 this April.



Square the groove and attach the runner. *Set a marking gauge to the end of the groove in the drawer side. Use that setting to mark the runner's location from the front of the case. Square the groove with a chisel and attach a self-adhesive polyurethane bumper—allow for the thickness of the bumper when you set your marking gauge. The runners sit in dadoes and are nailed in place with brads.*

2 LIPPED DRAWERS DON'T NEED STOPS

This type of drawer is constructed with a lip on the sides and top (the bottom traditionally has the same profile, but no lip). As the lip hits the carcase, the drawer can go no farther. The lip remains proud of the case year-round, no matter how much the case itself expands and contracts. As foolproof as this method is, building the drawer itself is a bit more work. The lipped drawer front has to be rabbeted and profiled. Fitting the drawer is also more involved. A flush drawer can be planed, sanded, or scraped across the end of the front, the dovetails, and the drawer side, while a lipped drawer precludes such simplicity. Lightly proud dovetails must be pared, scraped, or sanded to make them flush with the drawer side. If the drawer is slightly oversize, that can mean a lot of additional planing, paring, or sanding.

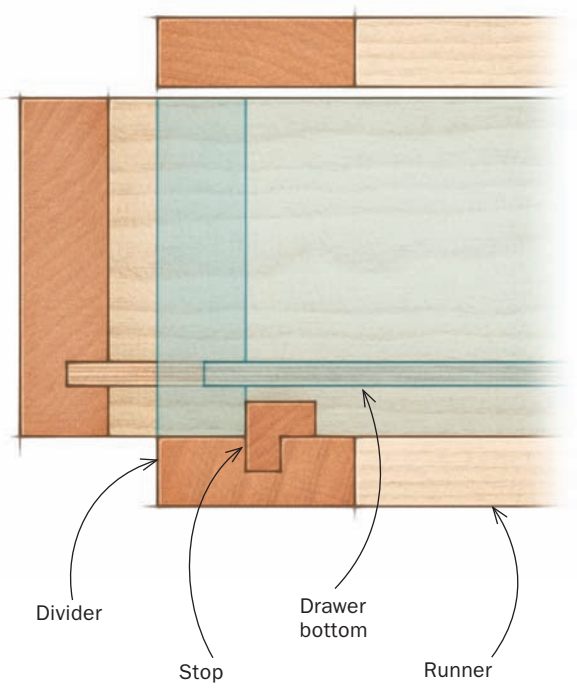


Creating the lip. *A rabbet is cut on three sides (left), and a profile is routed (above), planed, or scratched into the lip.*

Drawings: Christopher Mills

3 FRONT STOPS ARE TRADITIONAL

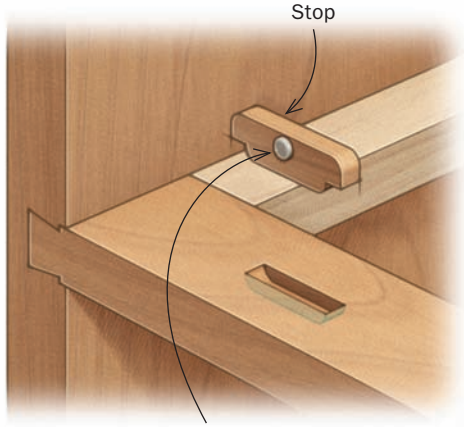
These are the most traditional method, and Becksvoort's personal favorite, perfect for flush drawers. Because the groove for the drawer bottom is usually about 5⁄16 in. to 3⁄8 in., or even 1⁄2 in., above the bottom edge of the drawer side (this allows room at the bottom for a half dovetail and also gives support to the drawer bottom), there is a space of about 1⁄4 in. between the drawer bottom and the runners and front side-to-side divider housing the drawer. A small scrap can be glued parallel with the front, the thickness of the drawer front from the edge.



Add stops for a flush front. *Set a marking gauge to the drawer front thickness. Rout a 1⁄4-in.-deep groove behind that mark and cut an L-profiled scrap, with the leg of the L fitting snugly into the groove. That mechanical fastening plus the glue will ensure years of foolproof drawer slamming.*

A QUIET DRAWER CLOSING

Set the stop back 1⁄16 in. and glue a leather or polyurethane bumper onto the front.

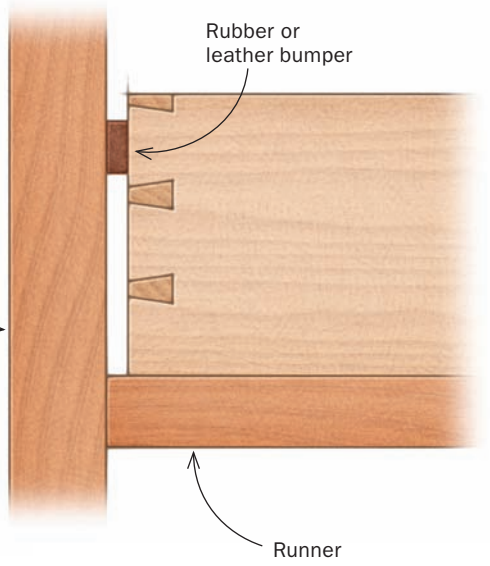


Photo, this page (top right): Dennis Griggs

4 BACK STOPS WORK FOR FRAME-AND-PANEL CASES

When constructing frame-and-panel cases (as opposed to solid-wood panels), back stops are ideal. The grain of the drawer sides runs front to back and the horizontal rails of the frame run front to back, meaning that wood movement is not an issue in keeping the drawers flush.

The back is the stop. *Whether you stop your drawer by butting it directly against the back or add small spacers or bumpers, you will ensure that the fronts are flush.*



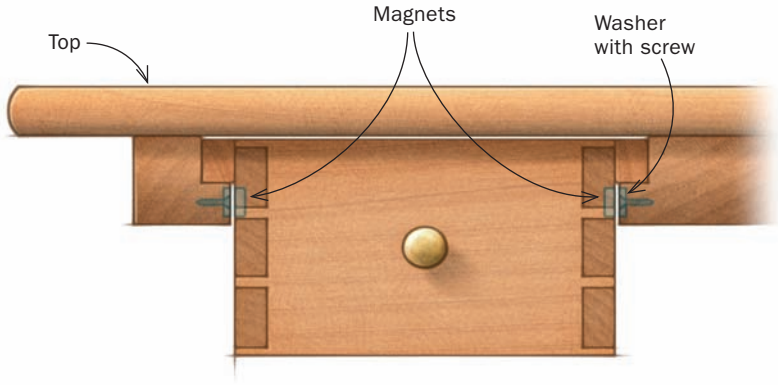
5 PROTRUDING BOTTOM STOPS ARE SIMPLE

Protruding drawer bottoms are seen frequently on period and antique cases. This method works best if the wood for the case is the same as the wood used for the drawer bottom. If you are building an oak case and use quartersawn pine for a drawer bottom, this method will not work because the coefficient of expansion of the two woods is so different. Using the same wood, it is the fastest and easiest of all the methods mentioned.

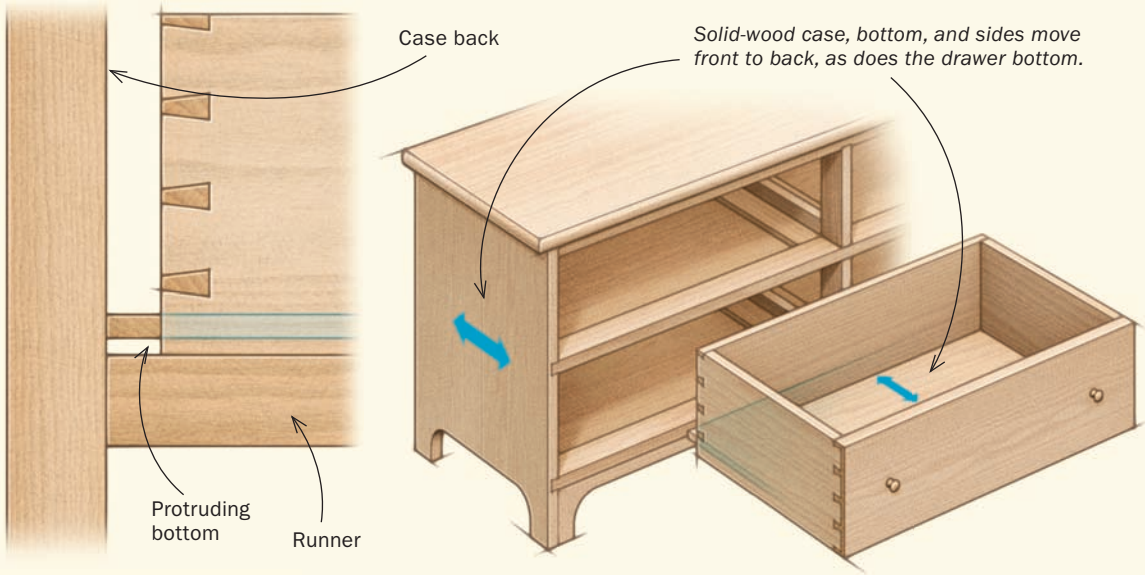
Photos, this page: Dennis Griggs

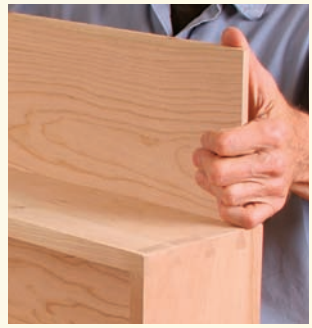
6 MAGNET STOPS ARE CATCHY

Some drawers are impossible to stop mechanically, such as drawers that open to both sides, as are found on some Shaker sewing stands. Most have no stops, relying merely on the user to push it to the correct location. Becksvoort ran across one that had a small notch across the bottom of the drawer sides, and what appeared to be a small lip glued to the case bottom. Obviously the drawer had to be lifted a bit to clear the lip, and it was well worn. Magnets on the drawer side that catch on metal in the case side are an elegant solution. They are invisible or hardly noticeable, and they stop the drawer softly where it belongs.



A modern stop. *Incorporate rare-earth magnets into the drawer side and screw a metal washer into the case side in the corresponding position. The magnet is unobtrusive, but you can cover it with veneer or a nylon dot if you choose. The washers in the case side aren't visible. With this method, the drawer just wants to stop in the correct, flush position.*





The bottom is a stop. *If the drawer is shorter than the inside of the case, and the bottom protrudes by the same amount, then as the case side expands and contracts, so does the drawer bottom.*

Photo, this page (top): Michael Pekovich