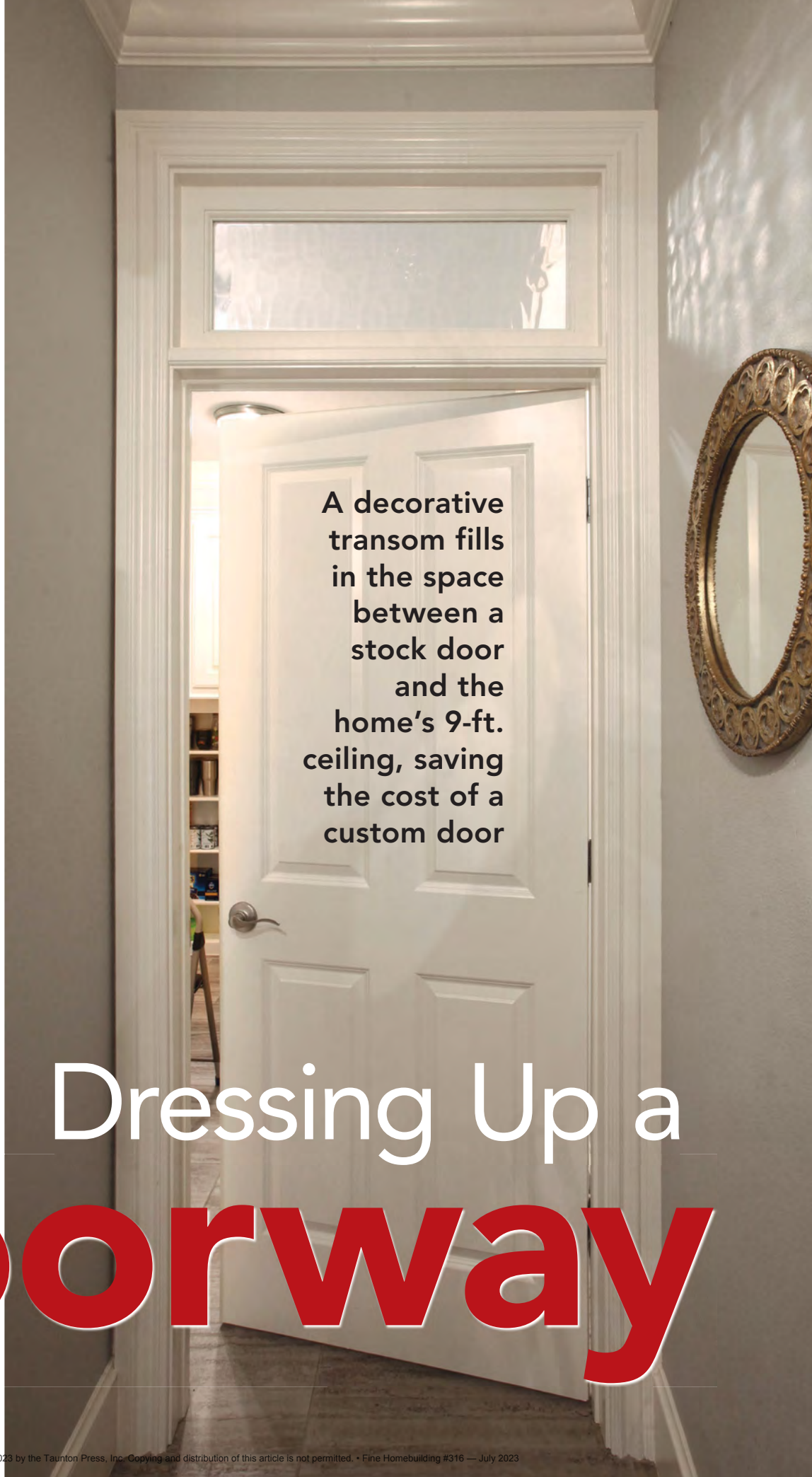
BY GARY STRIEGLER

Dressing Up a Doorway



A decorative transom fills in the space between a stock door and the home's 9-ft. ceiling, saving the cost of a custom door

Years ago, transoms were part of the climate-control system for rooms in buildings. They operated like awning windows, letting warm air escape near the ceiling when opened. None of the transoms I build today operate, but they do let in light. And with the high cost of custom doors, transoms are a great way to give basic doors a custom look with today's higher ceilings.

I've built many different types of transoms, but the one I cover here uses a paint-grade wood frame that looks a lot like the old operable transoms. It typically takes a minimum of 14 in. of space above the door jamb to build this type of transom. On this project we had 9-ft. ceilings, and the load-bearing walls had 2x10 headers snugged all the way up against the top wall plate. On non-load-bearing walls, I just have the framers header off the opening to give it the same height as a structural header. When the opening is ready, I install the door, leaving the open space above. □

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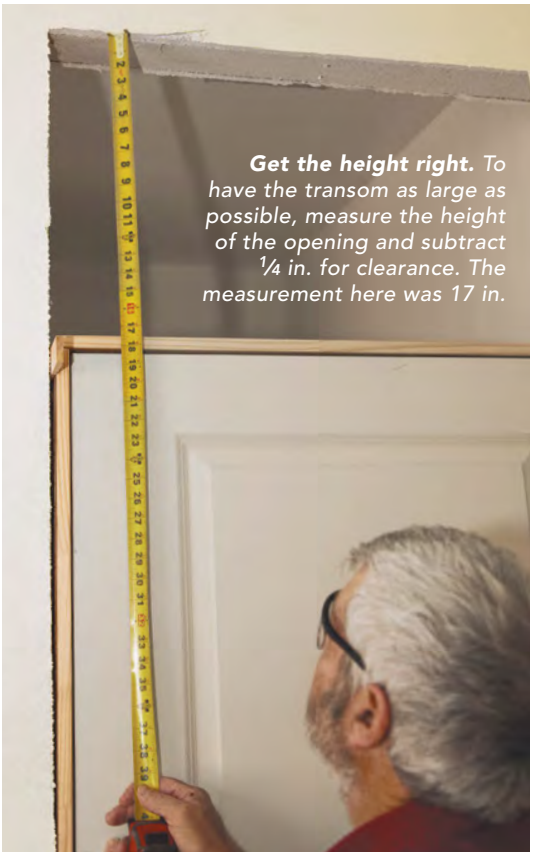
BUILD THE TRANSOM JAMB

The transom jamb is made out of 1x6 poplar ripped to 4⁹⁄₁₆ in. wide. To make the transom jamb align with the door jamb when installed, the inside measurements of the two need to be the same. I want the transom to have as much height as possible, so I leave only a minimal ¼-in. clearance at the top.

Match the inside. *Measure the inside width of the door jamb to get the matching width of the transom jamb.*



Get the height right. *To have the transom as large as possible, measure the height of the opening and subtract ¼ in. for clearance. The measurement here was 17 in.*

No-brainer measurement. *To measure the height of the jamb sides exactly, sandwich the top and bottom jambs together, and align the measuring tape with the 17-in. mark on one edge of the sandwich. The measurement on the other edge is the length of the transom side jambs (here, 15⁷⁄₁₆ in.).*

Critical check. *When the jamb is finished, double-check that the inside measurement is the same as that of the door jamb.*

Simple assembly. *After cutting all sides to length, assemble the pieces into a four-sided frame using ¼-in.-crown, 1½-in.-long staples.*

BUILD THE TRANSOM SASH

I build the transom sash out of two ¾-in.-thick poplar frames that fit back-to-back inside the transom jamb. The first frame, which is for the outside (the most visible side) of the transom, has mitered corners. To build the frame, I rip the sash stock slightly wide, then run it through the planer to remove sawblade marks and to dial in the precise width. I also rout a decorative quarter-round profile along one edge of the stock for the money side of the sash, with a rabbet on the back side for the glass. I cut the frame pieces ⅛ in. shorter than the inside measurements of the jamb to give the sash plenty of room. Any gaps will be covered by panel molding that acts as a sash stop when the sash is installed.

For the second frame (for the less visible side), I plane the material narrower than for the first frame so that the inside edge of the frame lines up with the shoulder of the rabbet in my first frame. That leaves space for the glass (which I get through my local glass supplier) and stop.

To complete the sash, I make the glass stop using the same router bit that I used on the inside edge of the first frame. The glass and stop are not permanently installed until the painting contractor is finished, so I tack each piece in place temporarily with a single headless pin. It's important to stain or paint the frame edge that the glass sits against, plus the back edge of the glass stop so that no raw wood is visible through the glass.

Fast saw-mark cleanup. *Rip 1x6 poplar to 2⅝ in., then run the material on edge through a planer to get rid of sawblade marks.*

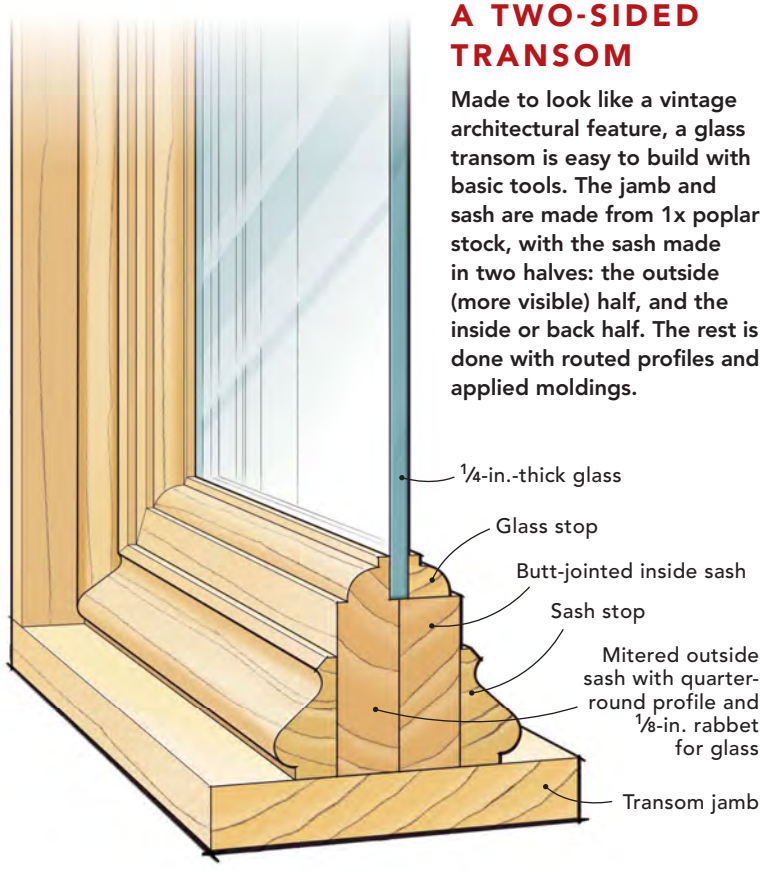
Routed embellishment. *Clamp the sash stock securely to the work surface, leaving the stock long enough for the router to avoid bumping into the clamps at each end. Rout a ⅜-in.-radius quarter-round thumbnail profile along the inside front edge of the outside sash stock.*

Rabbet holds the glass. *On the back of the outside sash opposite the routed profile, rout a ⅛-in.-deep rabbet that will keep the ¼-in.-thick glass centered in the sash. Once the profile and rabbet have been routed, trim the sash stock on the miter saw to final length.*

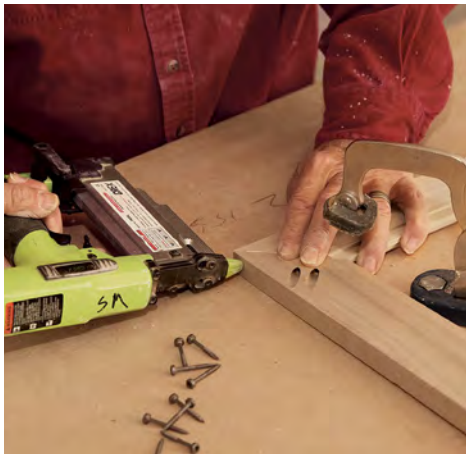
Tight miter secret. *To get tight mitered joints, you have to cut the height and width pieces accurately. After cutting the miter angles on each pair, line up the long edges side by side to make sure they are exactly the same length.*

A TWO-SIDED TRANSOM

Made to look like a vintage architectural feature, a glass transom is easy to build with basic tools. The jamb and sash are made from 1x poplar stock, with the sash made in two halves: the outside (more visible) half, and the inside or back half. The rest is done with routed profiles and applied moldings.



Drawing: George Retseck



Pocket-screw assembly. *After drilling pocket-screw holes in the shorter vertical pieces, drive headless pins to keep the corners aligned, then secure the corners with pocket screws.*

Butt joints for the back side. *The frame for the back side is planed to 2 in., which leaves space for the glass between the frames. Butt joints are an easier way to build the back half of the sash, but pocket screws still make the strongest joints.*

Two sides meet. *When both the front and back sides of the sash are complete, join the two with glue and brads.*

Mill the glass stops. *Using the same router bit as you used on the outside sash, with the cutting depth set so that the profile has only one shoulder, rout the profile on the edge of ½-in.-thick stock. Then rip the stock to ½ in. square to create the stop.*

Take the guesswork out of cutting angles. *To avoid confusion when cutting the glass stop, set the stop in place in the sash frame and mark the angle of the cut.*

Temporary home for the stops. *The glass stop is not installed for good until the painter is finished, so tack each length of stop in place with a headless pin. When the glass is in place and the stop is installed, the stop will leave a ⅛-in. shoulder to match the profile on the other side.*

FIT THE SASH IN THE JAMB

It's easiest to fit the transom sash inside the jamb and then install the unit as a whole above the door. As mentioned, I use panel molding to hide the gap between the sash and the jamb, and that molding acts as a stop for the sash. Just about any base-cap molding will work for this application. As an alternative, you can make your own stop molding with a router.

Stop centers the sash. *To center the transom sash in the jamb, nail the sash stop molding ¾ in. from the edge of the jamb.*

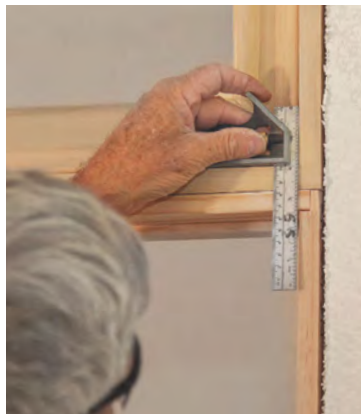
Square the jamb. *Place the sash in the jamb on top of the installed sash stop. Before nailing the sash to the jamb, measure diagonally in both directions to confirm that the jamb is square. Then drive finish nails through the jamb and into the sash to hold it in place.*

Second stop holds the sash. *With the jamb square and the sash tacked in place, apply the inside bead of sash stop to permanently secure the sash in the jamb.*

INSTALL THE TRANSOM

The most critical part of setting the transom is lining it up with the door jamb below so there's a seamless transition to the transom jamb. I use a small square to align the side jambs and a long level to align the transom with the wall, making sure that it sits in plane with the door jamb.

After the transom is installed, I finish by adding the door trim, which is just like trimming a tall door. The only catch is the horizontal mullion joint between the transom jamb and door jamb. I measure the width of the combined jambs and subtract a bit for a reveal on either side. After ripping the stock to the proper width, I plane down the thickness to match the inside edge of the door trim. I rout a simple bead along both edges of the mullion trim, cut it to length, and nail it in place to complete the installation.



Marry the jambs. *To make the transom look continuous above the door, line up the inside surfaces of the side jambs with a small try square. When the transom jamb is perfectly aligned with the door jamb below, drive brad nails from above to lock the two together.*

Plumb positioning. *A long level placed against the door jamb and transom jamb confirms that they are in the same plane. The level also aligns the transom jamb with the surrounding wall.*

Shim and nail. *After positioning the transom assembly and lining it up with the door below, insert shims to lock the transom in place, and nail it to the rough-opening frame with 15-ga. nails.*

Finish with trim. *Apply the door casing as if trimming out a tall door, letting the molding extend from the floor to the top of the transom.*

Hide the joint. *A simple site-made mullion molding covers the connection between the door jamb and the transom jamb.*