Repairing Rotten Trim

Don't replace the whole board; cut out the damage and make a perfect patch

BY JOHN MICHAEL DAVIS



Although a patch *that relies on carpenter's glue rarely endures under harsh conditions, a butt joint that's formed using high-strength epoxy can last as long as the wood itself.*

If I look hard enough at any house here in New Orleans, I'm sure to see one: a length of casing, fascia or corner board, with a hideous scarf joint only a foot or two from the end. This joint wasn't put there by the builder; it was added years later to repair a rotten section of trim.

We get a lot of rot down here, and the ends of the boards are often the first to go. When they do, the standard repair is to cut back to undamaged wood at a 45° angle (what's known as a scarf joint), then attach a new section of trim using yellow glue and finish nails. Sometimes it looks good—for a while.

After a year or two of seasonal movement, however, the joint separates, the rot sets in again, and the whole thing stands out like a sore thumb. On numerous occasions, I've been called in to repair the repair.

In some circumstances, the proper treatment is to tear out the entire length of trim and replace it with new. But if the patient is an 18-ft. long, old-growth red-cypress fascia board that has stood up to a century's worth of abuse with only a few inches of rot to show for it, I refuse to replace it with an inferior grade of lumber. Even when the injured party is not a valuable trim element, it may still be difficult to remove or expensive to replicate.

Whatever the reason might be, when I decide to repair rather than replace a rotten trim board, I surgically remove the damaged section by making a square cut using a speed square and a circular saw. (Whenever possible, I use my 4½-in. Porter-Cable trim

saw for this job because it's lighter and easier to control than a full-size circular saw.)

I prefer to fashion a new piece of trim out of the same species of wood as the old piece; I save old-growth lumber from demolition projects just for this purpose. To ensure an invisible and permanent repair, I use high-strength marine epoxy and a plastic biscuit to fasten the new section of trim to the old. Even in this pressure cooker that we New Orleans residents call a climate, I've yet to see one of my patches fail. □

John Michael Davis is a restoration carpenter in New Orleans, Louisiana. Photos by Tom O'Brien.

SOURCES

4½-in. trim saw (model #314): Porter-Cable Corp.
(800) 321-9443
www.porter-cable.com

Slot-cutting bit for router (model #146-0832): Eagle-America Corp.
(888) 872-7637
www.eagle-america.com

Epoxy primer (Primkote #8006-1): Abatron Inc.
(800) 445-1754
www.abatron.com

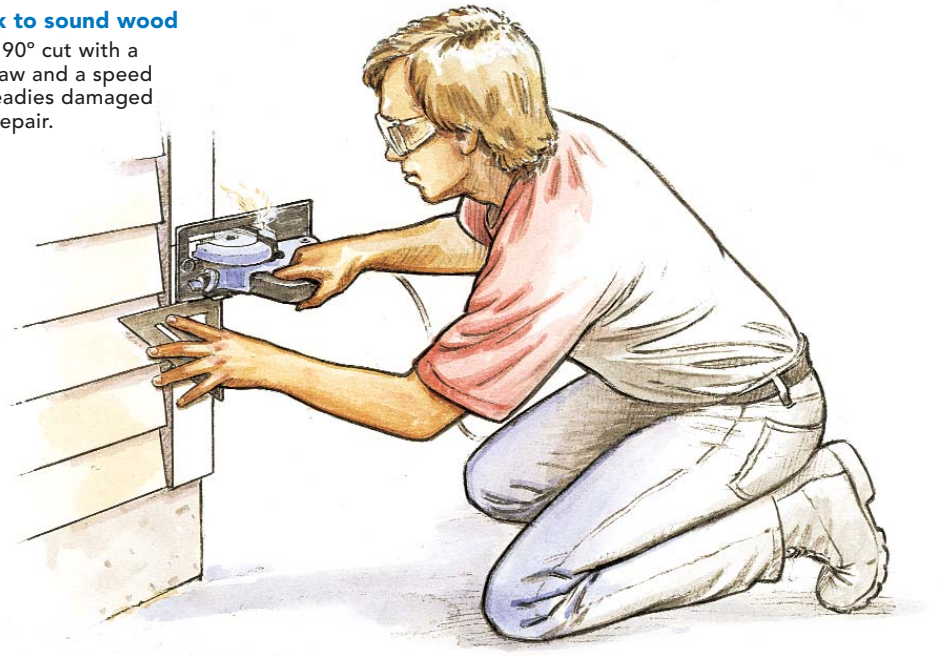
Plastic biscuits (Lamello K20): Colonial Saw Inc.
(781) 585-4364
www.csaw.com

West System epoxy: Gougeon Brothers Inc.
(989) 684-7286
www.westsystem.com

PLASTIC BISCUITS AND MARINE EPOXY

Cut back to sound wood

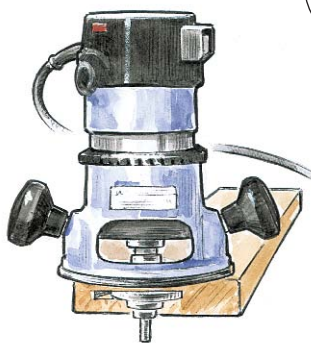
A simple 90° cut with a circular saw and a speed square readies damaged trim for repair.

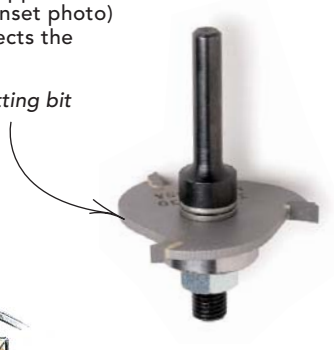




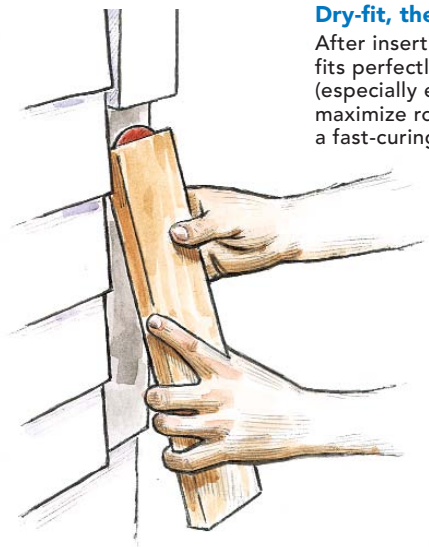
Router doubles as biscuit joiner

In tight spaces, a standard router equipped with a specially designed slot-cutting bit (inset photo) clears space for the biscuit that connects the patch to the existing trim.





When using a router, the author makes a single cut across the end of each board, stopping about ¼ in. from the edges.



Dry-fit, then prime all surfaces

After inserting a biscuit and making sure that the patch fits perfectly, the author gives every surface of the board (especially end grain) a liberal coating of primer. To maximize rot prevention and to minimize delays, he uses a fast-curing epoxy primer that dries clear.

For this job, the author uses a plastic biscuit that will not be affected by rot should water ever penetrate the joint.

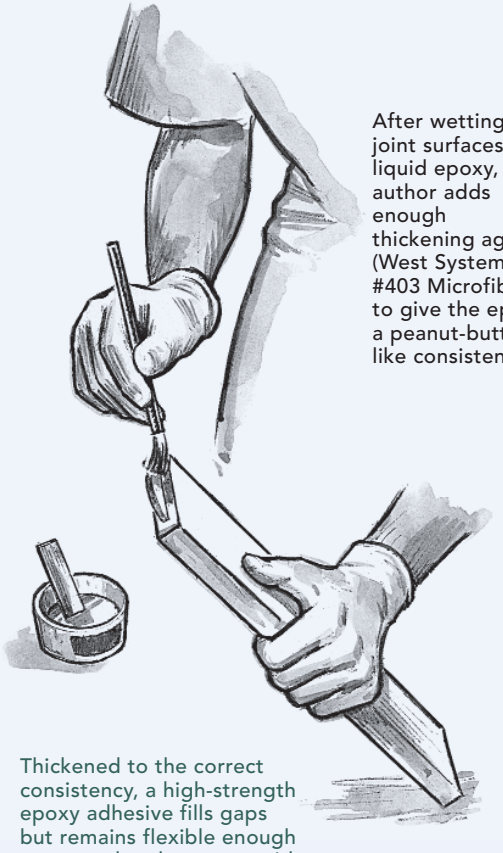


Drawings: Rick Daskam

Epoxies demand good housekeeping



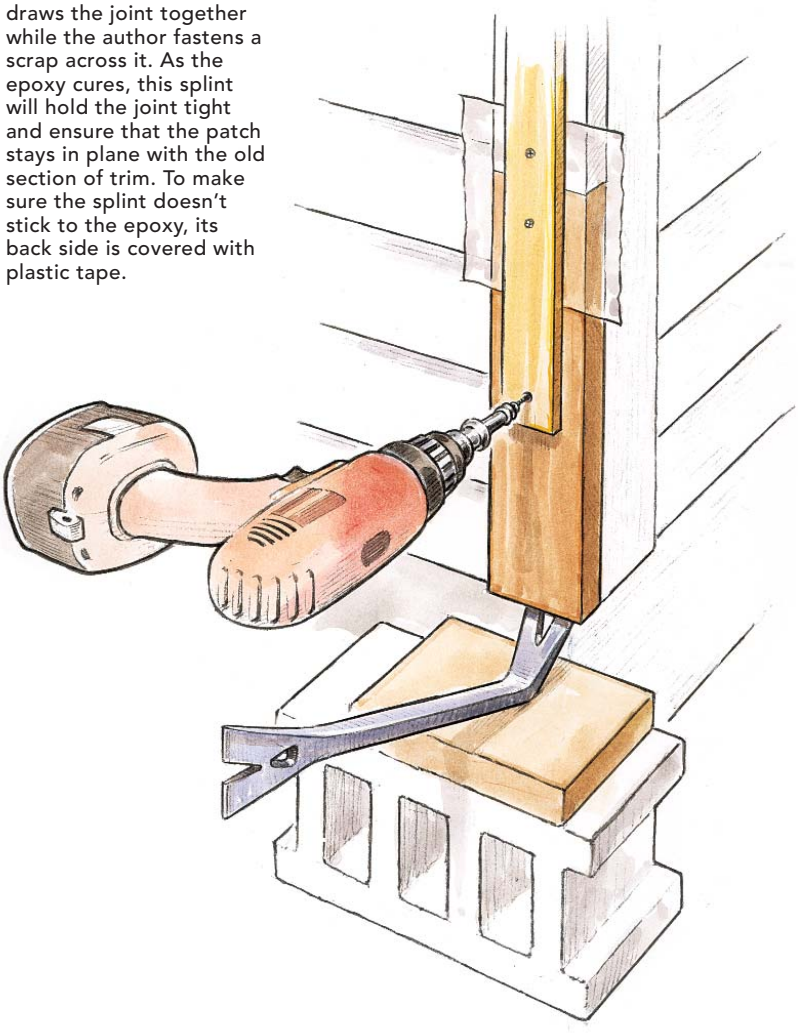
Set up far enough from the job site to be free of airborne debris, a sheet of plywood over sawhorses provides a clean place to mix epoxy. The canvas bag in the background keeps all the epoxy supplies close at hand.



After wetting the joint surfaces with liquid epoxy, the author adds enough thickening agent (West System's #403 Microfibers) to give the epoxy a peanut-butter-like consistency.

Thickened to the correct consistency, a high-strength epoxy adhesive fills gaps but remains flexible enough to expand and contract with the wood.

A pry bar draws the joint together while the author fastens a scrap across it. As the epoxy cures, this splint will hold the joint tight and ensure that the patch stays in plane with the old section of trim. To make sure the splint doesn't stick to the epoxy, its back side is covered with plastic tape.



Sand smooth, then paint

After allowing the epoxy to cure overnight, the author removes the splint and polishes the joint using a palm sander and 60-grit paper. Next, the entire patch is coated with alkyd primer. To ensure maximum longevity, the patch should be covered with two full coats of high-quality paint within two weeks.

