



Patching

a Hardwood Floor

BY BRENT KELOSKY

Two methods for replacing a damaged section of board

My father started our family business, Wood Floor Designs, more than three decades ago. I've helped him manage it for the past 26 years. In that time, we've completed hundreds of floor patches. The hardest part of any patch job is finding a replacement board to match the floor—it needs to be the same species and equal in size, thickness, and grain. There are times when you can hide a repair completely, and other times when it might be more visible, but it need not stand out like a sore thumb. No matter the wood (here we're working with plain-sawn red oak), we use one of two repair methods—one requires a circular saw, and the other a router. The choice depends on how deep the damage goes.

Brent Kelosky is president of Wood Floor Designs, Inc. in Koppel, Pa. Photos by Patrick McCombe.

REMOVE THE OLD BOARD DOWN TO THE SUBFLOOR

If you know there's rot, it's best to cut out the section of board in its entirety down to the substrate. Termite damage and holes are also good reasons to remove the entire piece. You want to install boards as flush as possible, even if you are going to sand, but it's better if the new board is a little proud than if it sinks below the surrounding boards. If the floor has been finished already, you will need to spend extra time ensuring the thickness of the new board is an exact match, and set it with precision.



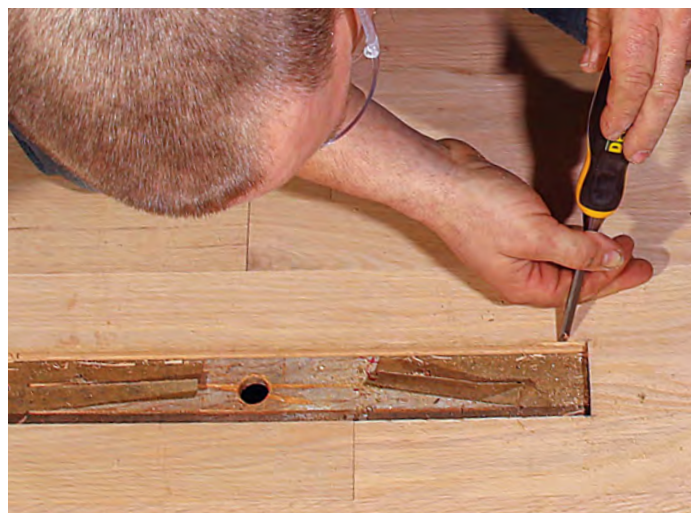
Mark the repair. If it's a long board, mark the section being replaced with a square. Use an oscillating multitool to make the first two cuts at both ends of the damaged area.



Make three cuts. With a circular saw set to $\frac{3}{4}$ in., make two cuts down the length of the board and one at an angle across (an "N" shape). This releases pressure and makes removing the pieces easier. Be sure to make the first cut to the inside of any nails, then move over an inch and make the second lengthwise cut.



Remove the damage. Use a chisel or oscillating multitool to extend the lengthwise cuts to the ends to free the center strips, and remove them; the groove side should come out easily. Use a hammer and chisel to chip away the tongue side, and use a cat's paw to remove any nails.



Pry the tongue. Remove the tongue of the cut board from the groove on the adjacent board.

INSTALL THE NEW BOARD



Modify the groove. In order to tip the tongue-and-groove replacement board into place—tongue-side first—rip the back of the groove with the claw of a hammer to make a rabbeted joint.



Mark, cut, check. Use a utility knife to mark the cut on the replacement board. Cut it to size and dry-fit, laying dental floss or a piece of paper down first to make it easy to remove.



Anchor the board. Apply adhesive (we use Bona, but Liquid Nails or yellow glue work too) to the tongue and groove of the adjacent boards, and slide the replacement piece into place. Do not glue directly to the subfloor.

ANOTHER APPROACH

Take the top off

If the board is not damaged all the way through, another repair option is to use a router to remove the top wear layer. With this method, the original plank stays anchored to the floor and substrate, and gets a shallow mortise to receive a replacement cap. This approach calls for a 1/4-in.-thick piece—resawn or planed down from a full-thickness board. If you use this method with prefinished flooring, you won't be able to sand, so the depth of the mortise and thickness of the patch have to match precisely.



Set a guide. Nail a 3/4-in. plywood template over the area so the router bit and bearing ride on the template without hitting adjacent boards. If the floor is already finished, either tack the template between board seams or use double-sided tape to hold it down. Do a test to make sure the tape won't mar the floor.



Go slow. Use a router to remove the top one-third of the board surface in 1/16-in. increments. Rout down to just above where the tongue and nails sit.



Tamp it in. With a rubber mallet, gently tamp the new board in place. Weight the new board until the adhesive sets up.



Finish it off. If the patch stands slightly proud, sand it into plane. We use an edger, which is more aggressive than an orbital sander.



Check the match. Remove the template, clean up the corners with a chisel, and do a dry fit, gently tapping the replacement piece into place to ensure it is reasonably flush. For final installation, lay in the adhesive, tap the board into place with a rubber mallet, weight it until the glue sets, and then sand if needed.

