

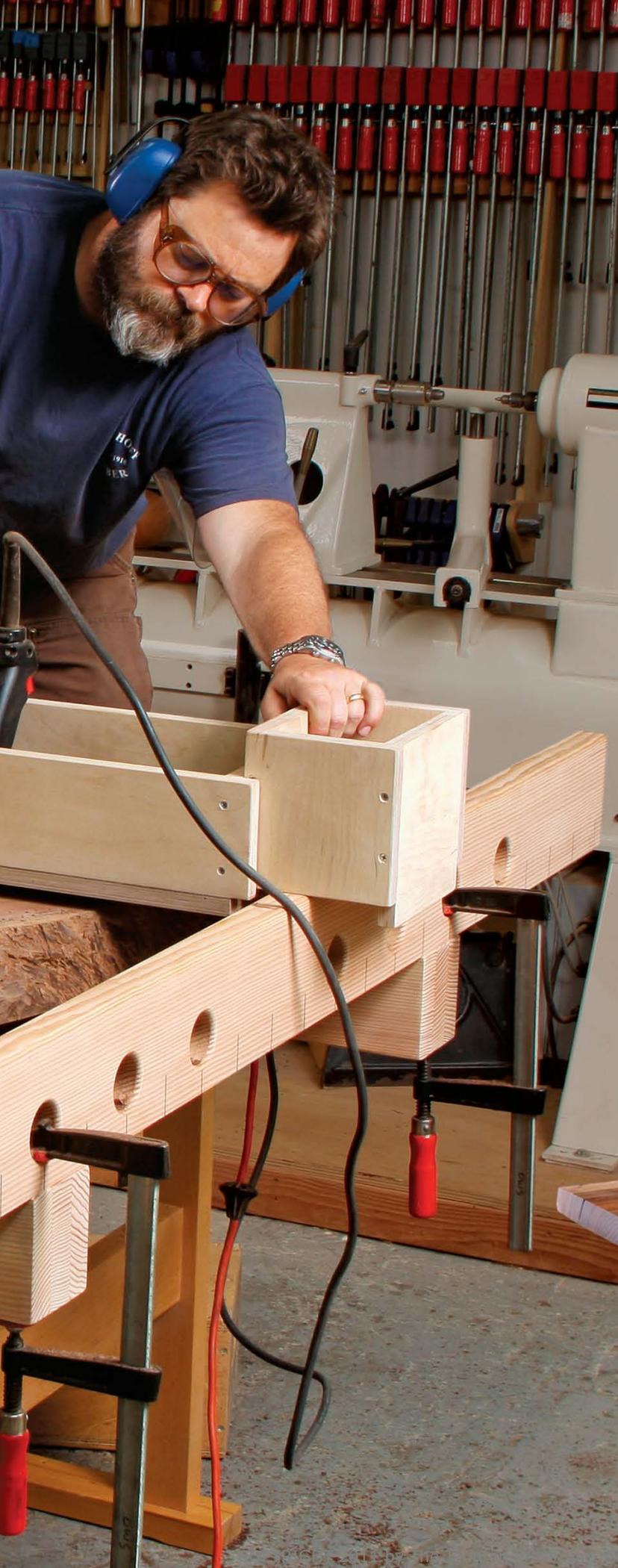
# Level Big Slabs in No Time Flat\*

NBC sitcom star cooks up router jigs  
and Nakashima-style furniture in his L.A. shop

BY NICK OFFERMAN



\*Author's suggested headline: Super-Kickass Offerman Leveling  
Jig Is Greatest Invention in History of The Taunton Press



Nothing elicits greater gasps of delight from my clients than when I simply oil a piece of furniture and let the wood do the talking, in its velvety language of grain, figure, color, and magic. That's right, I said magic. You may think I'm waxing rhapsodic, but those woodworkers who have seen quilted figure jump out of a piece of newly oiled walnut know what I'm talking about.

It follows that wood will speak its magic the loudest when it is altered as little as possible on its journey from inside the tree to underneath your dish of beef stew. Don't get me wrong, I love a Queen Anne highboy as much as the next pilgrim, but I also love to take a slab or block of wood, make it level and usable, put a hand-rubbed oil finish on it, and send it out into the world. Actually, I get my younger brother Matt to move those pieces. They are as heavy as heck.

### How a farm boy became an actor became a woodworker

I grew up among a family of Illinois farmers (natural carpenters and mechanics) and, despite my best efforts to escape this farm tradition with a career in break dancing, I was ultimately forced to hang up my parachute pants. When I enrolled in the theater conservatory at the University of Illinois, my ambition far out-reached my talent, and I found myself being cast in plays accordingly. My greatest role in college was the 92-year-old Ferapont, the butler in Chekhov's "Three Sisters," with a grand total of three lines of dialogue. My saving grace was that, while all of the seasoned 20-year-olds from Chicago were masterful in their character work, they had literally never hammered a nail, let alone heard of a cordless drill. They could play the starring roles, but I could build the scenery!

My self-worth restored, I graduated, moved to Chicago, and found in my tool belt a way to earn dollars building scenery and props, while acting in plays at night for peanuts. This arrangement made for an incredibly rich education in both acting

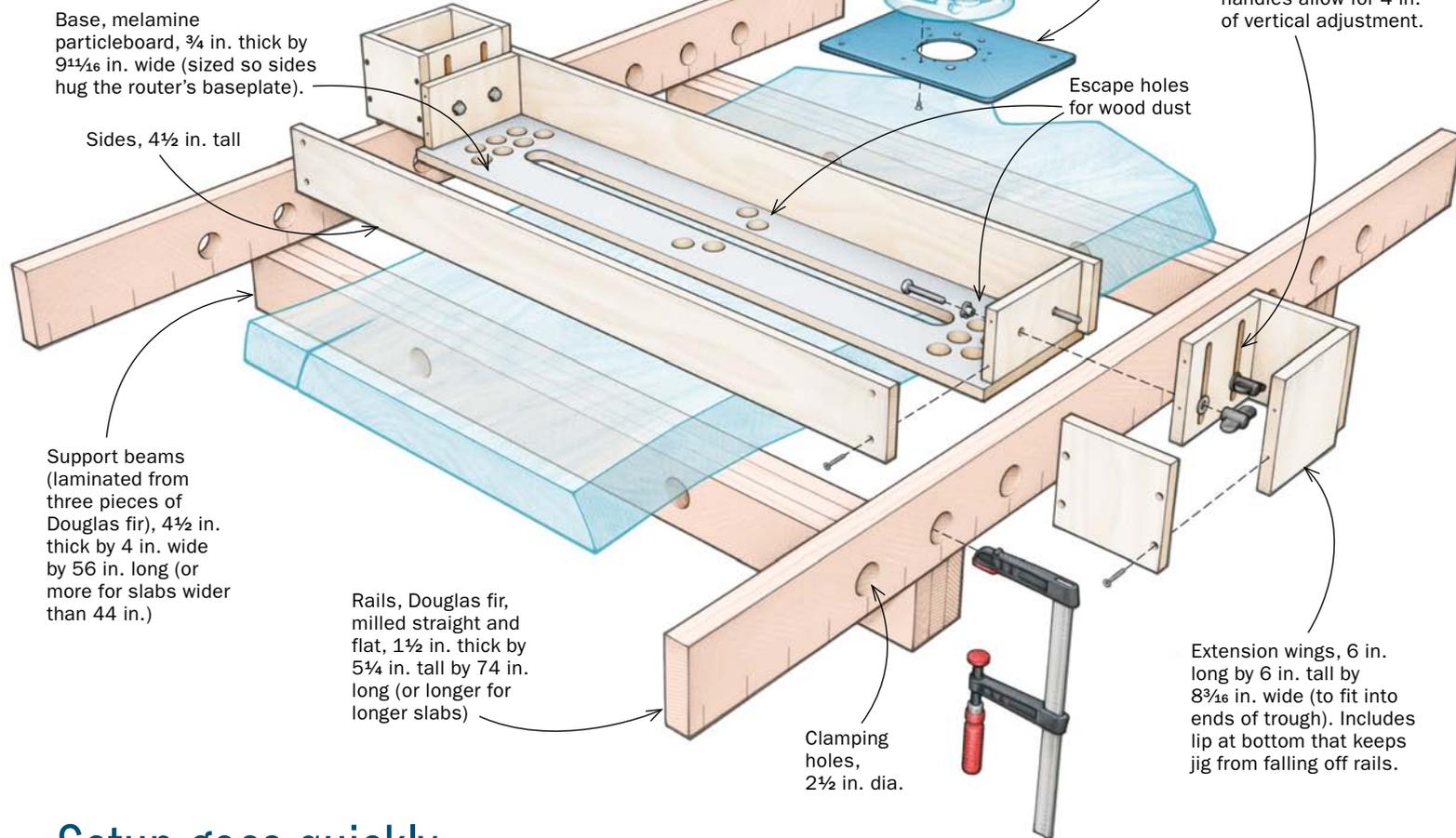
**Ron Swanson.**  
*Nick Offerman plays the deadpan Ron Swanson in Parks & Recreation, now in its fourth season on NBC. Both Nick and Ron love breakfast meats, woodworking, and the great outdoors.*



LIVE-EDGE COFFEE TABLE

## SHOPMADE LEVELING JIG

The heart of the operation is a trough that guides the router over the workpiece. Extension wings are bolted on the ends, allowing 4 in. of up-and-down adjustability. Those wings ride on rails, which can be supported on a broad table, or a narrow workbench using support beams as shown. Except for its base, the trough is made from ¾-in.-thick birch plywood.



## Setup goes quickly



**Level the slab.** After leveling your workbench or worktable, clamp the support beams to it. Then the slab goes on and gets leveled. The idea is to even out the high or low points as much as possible to maximize the finished thickness. One long and one short level, plus a few shims, are all you need. Big workpieces like this will stay in place without clamps.



**Add the rails.** Size the jig and its support beams to accommodate the largest slabs you think you'll encounter.



**Adjust the height of the jig.** The extension wings allow up-and-down adjustment, with guidelines on the ends to help you keep the jig level. Adjust the trough so it just clears the highest point of the slab.

and scenic carpentry. By the time I decided to leave for Los Angeles a few years later, I had my own modest scenery shop in a warehouse and a halfway decent resume of acting roles under my (tool) belt.

Upon arriving in Tinseltown, I was astonished to learn that Los Angeles has nowhere near the thriving theater scene that exists in Chicago. That meant no scenery dollars. Of course, the film and television industry require an enormous amount of scenery, but every shop I walked into was a union shop that wasn't interested in an aspiring actor. Lucky for me, one friend needed a deck, then another needed a cabin in the hills, which led to yet another post-and-beam folly in a west-L.A. backyard. Building these structures ignited my love affair with the chisel, as well as solid-wood joinery. As I studied the ins and outs of the mortise-and-tenon, I discovered books by George Nakashima, James Krenov, and Tage Frid (and, of course, *Fine Woodworking* magazine), and, before I could say "half-blind dovetail," I had a shop and my first clients.

### The Nakashima bug

Like a lot of other woodworkers, I was enthralled with the designs of Nakashima, so I toured northern California to collect some tree slabs, and began making what has become my shop's bread-and-butter item: the Nakashima-style dining table. The thing that sets a slab table apart from other popular furniture designs is the way the natural edge of the slab lends an organic yet elegant shape to the table. The tricky part is that chainsaw and portable sawmill cuts are often imprecise, and even well-sawn and properly dried slabs warp while they cure.

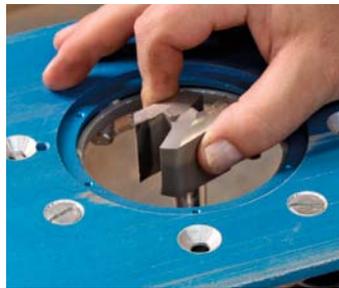
When I began making these tables, I used a power planer, a belt sander, and a couple of long straightedges to bring the surfaces flat within a tolerance of  $\frac{1}{16}$  in., and then I sanded them for finish. Although this worked well, it was very time-consuming. I was beginning to accumulate orders for slab tables, as well as occasional tables that I make out of a large chunk of stump, so I needed to create a simple, convenient flattening system.

### A router jig is born

It was a happy day when I came up with this versatile router jig. It was easy to build, and I'm still amazed at how quickly it levels a big, warped slab, leaving only a few minutes of sanding to do.

The heart of the operation is a bridge-like trough that guides the router on a level plane over the workpiece. Tall sides prevent any sag across the span. The router is screwed to a router-table insert plate that keeps it steady in the trough. And the trough itself sits on rails, allowing it to be slid along the slab between passes of the router. That's it. Relatively simple but extremely effective.

## Flatten the first side



**Get your router ready.** A rectangular baseplate (sold for router-table use) guides the router in the trough, and a wide plunge-cutting bit levels a  $1\frac{3}{4}$ -in.-wide strip with each pass. Offerman uses Amana's A-Max No. 45453,  $1\frac{3}{4}$ -in.-dia. straight plunge bit.



**Hit the high points first.** Just slide the router along the trough to make a pass. One hand is enough to control it unless you hit a knot or other rough patch. Don't force the action. Make the final pass only about  $\frac{1}{16}$  in. deep for cleanest results.



**Lining up a pass.** Just slide the jig over, looking through the bit slot to see the edge of the last cut. You don't need to clamp the jig to the rails.

# Finish the job



**Grip it and flip it.** Tip the slab up on edge, and balance it there while you sweep the shims and dust off the rails. You might need some help. Then lay it down flat on its other side. Take a moment to enjoy how it lies perfectly flat on the support beams.



**Route the other side.** You'll be surprised at how quickly the whole process goes, leaving smooth rows of router tracks on both sides of the slab.



## For a thicker slab, don't level the entire bottom

If the wood is very warped and would be too thin if flattened on both sides, I sometimes leave the bottom of the slab rough. I prefer the look of a thicker slab. Other times, a client wants the slab that way. The look does have a lot of character, but it doesn't leave a flat surface for attaching the trestle base.

The jig offers a great solution. It lets me rout a couple of flat channels just big enough to accommodate the upper beams of my trestle base. —N.O.

Stretcher prevents racking.

Buttons fit into long slot in feet.

FLAT SPOTS FOR SOLID JOINERY

Button has sawkerf to allow tightening.

Inner screw tightens button.

Notches for shopmade buttons

Trough is just big enough to accept the foot.



**Place and trace the feet.** Offerman leveled a smaller slab to make these feet. He decides where they will go on the underside of the tabletop, and then traces their location.



**Lock the jig in place.** A few clamps on the rails are necessary to keep the jig from sliding sideways, and a few passes get you to finished depth. Then move the jig over, lock it in place, cut to the same depth, and repeat until you've created a trough wide enough to accept the foot.



**Room for joinery.** Offerman uses a trim router to carve out extra landing pads for the buttons he uses to join the feet to the slab, squaring them up by hand with a chisel and mallet.



**Sanding goes quickly, too.** Start with a belt sander, with 60- or 80-grit paper, and follow with a random-orbit sander, working up from 80 grit to 220.

I usually set everything up on my big tablesaw outfeed table, clamping the rails to a set of simple plywood towers. But for those of you who don't have a broad, flat table like that, I've devised an alternative rig that can rest on the floor, sawhorses, or any workbench. It works just as well. By the way, I recommend using a big plunge router.



**Don't forget the edges.** Offerman uses a variety of tools, such as this "sanding star" drill attachment (\$18 at woodcraft.com), to remove debris from the edges and prep them for finishing.



**Just rewards.** The first coat of linseed oil brings the claro walnut to life. Finish both sides equally to avoid warping.

### How to flatten a slab

The first thing I do is take a close look at the rough slab and choose the side that will be the top. Usually that is the prettiest side, and the one without any rot. Then I seesaw the slab up onto the base rails and use shims to even out the low points and high points as best I can. The closer you can bring your high and low points to each other, the less material you will have to remove. Most of my slabs are so heavy that I don't have to worry about them shifting during the operation, but if you're working on a smaller piece, make sure your shims are secure and clamp down one edge of the slab.

I usually mill both sides of the slab if there's enough material to afford it. When you surface only one side of any piece of wood, it can react pretty drastically by cupping or warping, based on some fancy science reasons that I am not going to look up right now.

When I first used this jig, I was so proud that I signed it. And now I get to share it in the pages of my favorite magazine. I hope you enjoy it as much as I have. □

*Nick Offerman is an actor and a professional woodworker.*

### Online Extras

Offerman also uses his versatile leveling jig to create beautiful side tables from stumps that would otherwise be thrown away. He shows how, and leads an entertaining tour of his shop, at [FineWoodworking.com/extras](http://FineWoodworking.com/extras).

