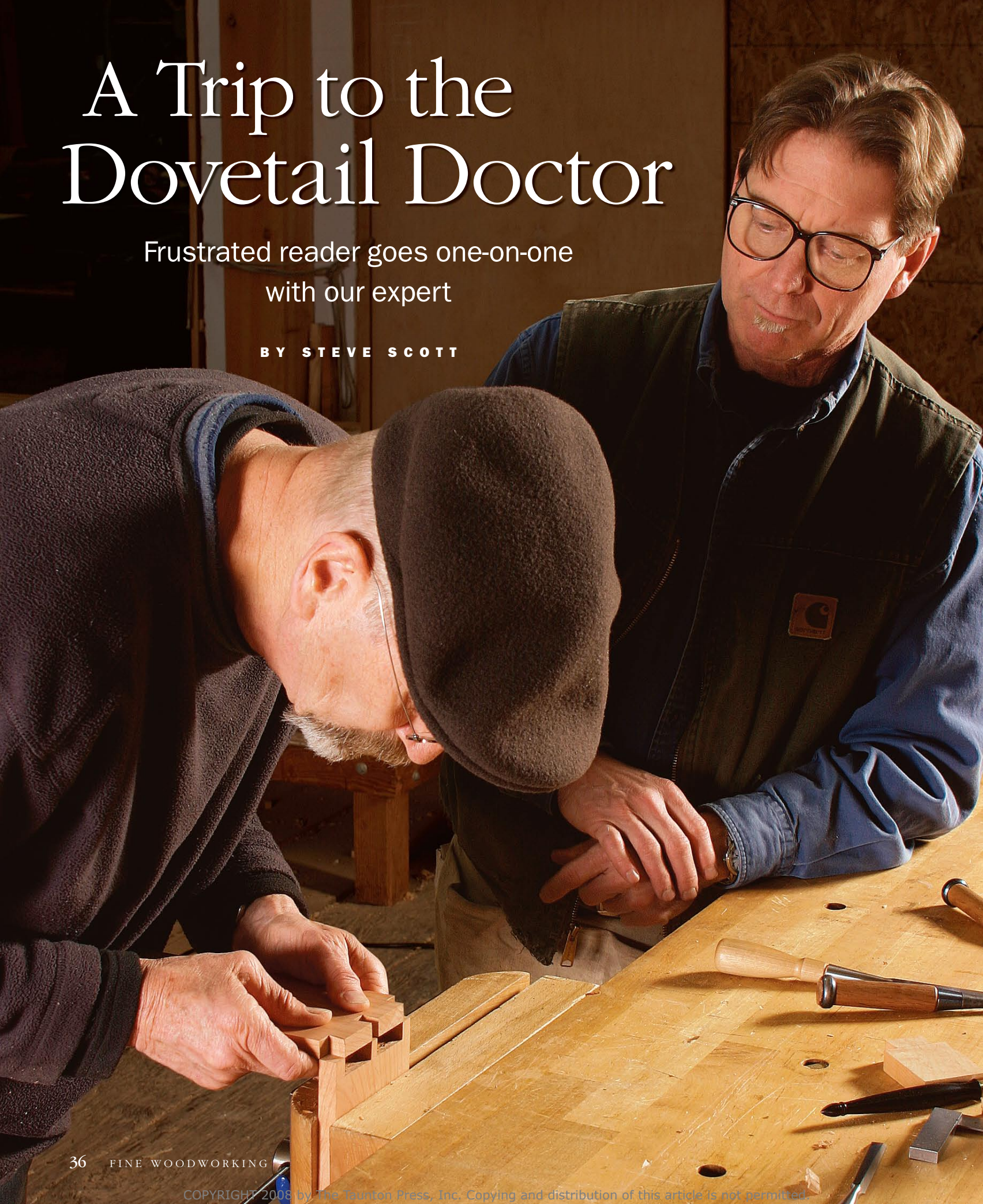
A Trip to the Dovetail Doctor

Frustrated reader goes one-on-one with our expert

BY STEVE SCOTT



Earlier this year, a frustrated woodworker sent us a note that was both challenging and matter-of-fact. His subject was dovetails. "I've read most of the stuff *Fine Woodworking* has published and seen several videos (offering dovetail instruction)," he wrote. "I still can't do 'em."

The reader, Tom Rawson of Oakland, Calif., said he had also taken a local woodworking class and practiced dovetails diligently for months afterward. The results? "I tried. I focused. I failed."

The problem as Rawson sees it is that even the most thorough instruction tends to gloss over the basic mechanics. He proposed an article to address those details, and as a way of getting at them he suggested something we had never tried. What if we arranged for a struggling woodworker like him to have a one-on-one tutorial with an expert? The student could explain his difficulties to the expert, who would teach him the nuances he'd been missing. We'd be there to capture the action in photos and in video.

We arranged for Rawson to spend a couple of days working on through-dovetails with contributing editor Gary Rogowski at Rogowski's school, the Northwest Woodworking Studio in Portland, Ore. When he arrived in Portland in April, Rawson brought with him a host of frustrations and preconceptions, but a willingness to drop them all in pursuit of better dovetails. Meanwhile, Rogowski worried that he wouldn't be able to identify any problems or that his student would lack the hand-eye coordination to follow through—that after two days he would have to politely suggest that Rawson outsource all his dovetails or sell his woodworking tools and take up crossword puzzles.

Exam reveals a host of ailments, cures

He needn't have worried. Almost from the moment Rawson began working, Rogowski began spotting problems, small and large. At every important stage—layout, sawing, chopping away waste,

KEEP LAYOUT AT ARM'S LENGTH

Scribing a clean, deep baseline is more of a challenge if you're clutching the workpiece to your chest. Rogowski suggested that Rawson hold the work on the bench for greater stability and a much cleaner line.

KEY TO STRAIGHT SAWCUTS

Rawson's white-knuckle pistol grip on the backsaw caused the saw to bind and drift. Rogowski encouraged him to use a one-handed grip and "let the saw do the work."

BETTER ANGLE ON CHOPPING

When chopping waste, Rawson's stance at the end of the workpiece meant he couldn't tell if the chisel was square to the work. Rogowski had him reorient so that he had a side view of the chisel.

paring and fitting the joint—Rogowski was able to give Rawson critical pointers. Here are the tips that helped the most.

Good dovetails start with good layout—The first step in dovetailing is to scribe a baseline matching the thickness of the stock on the end of both workpieces. Rogowski quickly spotted a problem. Rawson was holding the workpiece against his chest while drawing the marking gauge across the work. Rogowski suggested holding the workpiece flat on the bench instead, allowing him to use his hands more effectively. This resulted in a crisper, deeper line.

It's a saw, not a pistol—Rawson's troubles with the backsaw stemmed mainly from his grip: a locked-down, two-fisted clench that looked to Rogowski "like he was shooting a .45." This was causing the saw to wander and to bind in the kerf.

"You've got to give up that other hand and let the saw do the work," Rogowski told him, demonstrating a light but firm one-handed grip with the index finger extended.

As that first morning progressed, Rawson got more comfortable with the new grip and his sawing became more fluid and less labored. He described the switch as "kind of a breakthrough."

Online Extra

For a video of Rawson's day with Rogowski, go to **FineWoodworking.com/extras.**

Rogowski also suggested simple practice drills in pine for sawing on a line. And he showed Rawson how to start a cut cleanly by setting the saw's teeth on the opposite corner of the stock and gently pulling toward him.

Square or not depends on your point of view—To chop out the waste between tails, Rawson positioned himself at the end of the bench, facing the end of the workpiece.

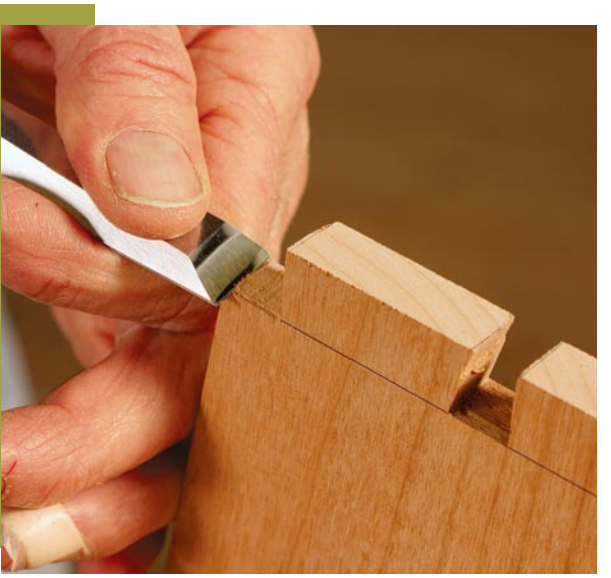
"OK, now wait a second. Stop right there," Rogowski said. "How do you know you're chopping square?"

Rawson paused, mallet frozen mid-swing, "I guess I don't."

Rogowski moved Rawson to the side of the bench so he could see the chisel in profile and gauge whether it was straight up and down before striking it. He also showed Rawson a trick for finding the baseline with the chisel edge by lightly dragging the edge, bevel down, until it snaps into the line. The results were

V-GROOVE FOR SQUARE SHOULDERS

Before sawing the shoulders at each end of the tail board, Rogowski cuts a V-groove that meets the baseline. This makes it easier to locate the sawkerf and pare a perfect shoulder. He saws shy of the baseline, leaving a small ledge of material to be pared away precisely.



Photos: Steve Scott

ALIGN THE PARTS FOR A CLEAN TRANSFER

Rogowski suggested resting the tail board on a handplane with the pin board clamped in a vise. He uses a knife to mark the pin locations, then pencils in the lines to make them more visible.

encouraging. "It certainly feels like things are possible here that haven't felt possible before," Rawson said.

A problem at the end of the tails—When sawing the shoulders on the ends of the tail board, where the half-pins go, it's easy to cut or pare past the scribed baseline. Rogowski demonstrated a simple way to avoid that risk. Before sawing, he uses a chisel to cut a V-groove that meets the baseline. This makes it easy to locate the sawkerf and maintain a straight cut. The sawcut stays a bit shy of the line, leaving a small ledge of material to be pared away.

A clean transfer is critical—The mating pins are laid out by scribing the outline of the finished tails onto the pin board. Rogowski showed Rawson a couple of ways to help ensure accuracy. First, he used a small square to check that the tails were square front to back, making corrections with a sharp chisel before transferring the layout. He also took care to align the two workpieces precisely during the transfer, using a wide, flat scrap as a straightedge.

Fit the joint in stages—Paring for a final fit "makes my blood run cold," Rawson told me. "If things were askew from the saw, what makes me think they're gonna get better with a chisel? Seems like the errors compound." As an antidote, Rogowski told Rawson to pare and fit each mating surface in turn, working from one side of the board to the other. He demonstrated how to identify where the pins need paring by blackening the edges of the tails with a pencil so they mark the tight spots when test-fitting the joint.

SNEAK UP ON THE FIT

When a chisel is placed in the baseline too early, all the waste wood in front of it pushes the chisel backward, past the line. Rogowski emphasized chopping out the bulk of the waste first (left) and then paring right to the line (right).

The patient takes home a prescription

Beyond the specific tips, Rogowski encouraged Rawson to continue practicing regularly, and to set aside the 1-in.-thick birch he'd been practicing on in favor of friendlier material like poplar.

Fitting a snug set of tails at the end of the second day, Rawson was tired but excited and newly confident.

"This is where I never thought I would be," he said.

The good doctor, meanwhile, was relieved that he'd been able to help. "It was good," Rogowski said. "It felt good." □

Rapid recovery. *With Rawson's second set of tails, the doctor's remedies appeared to be working. The patient has since finished several dovetailed drawers.*

Steve Scott is an associate editor.