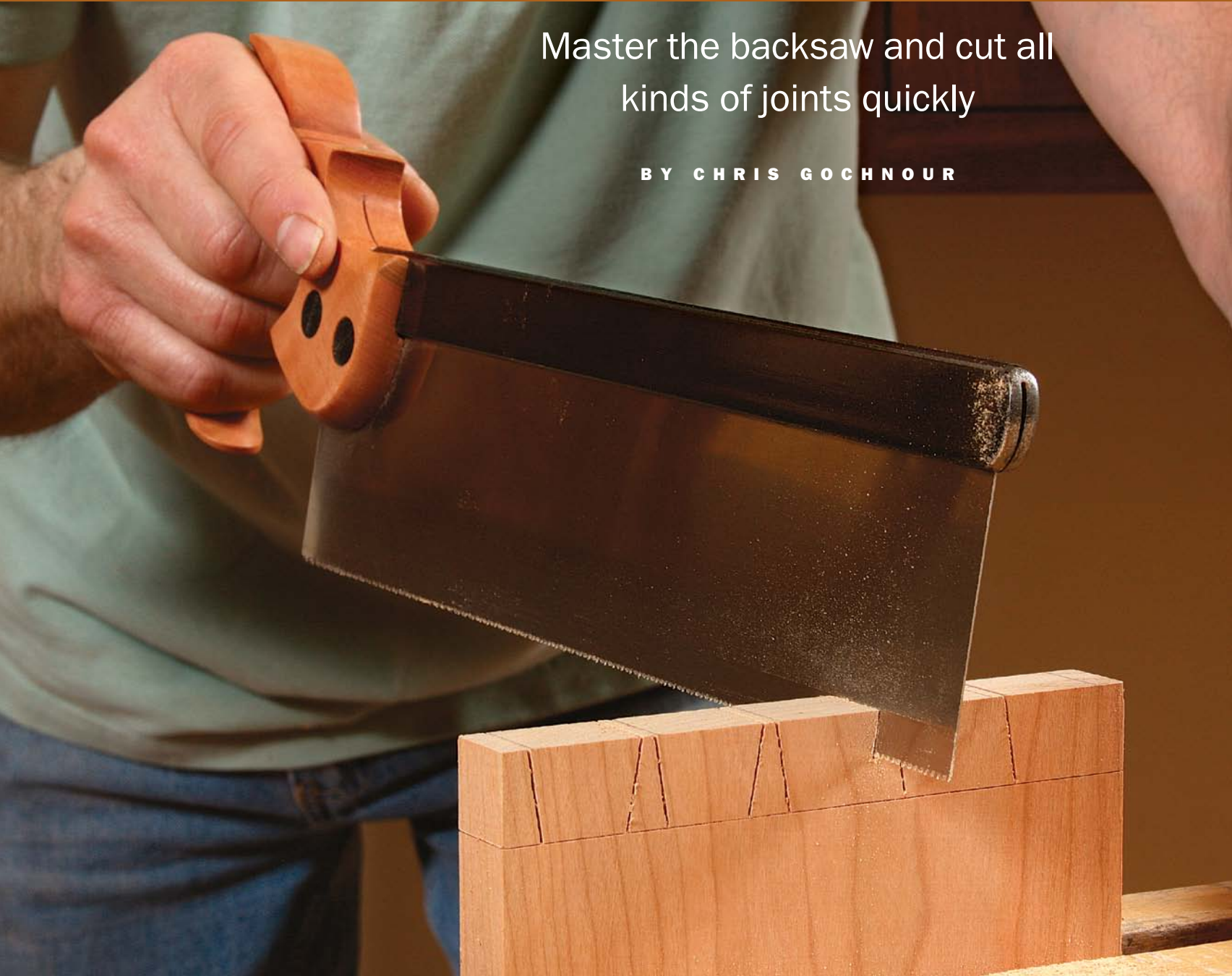


Saw Like an Old Pro

Master the backsaw and cut all kinds of joints quickly

BY CHRIS GOCHNOUR



There's no doubt that power tools like the tablesaw and router are efficient and put perfect joinery within the reach of even the newest woodworker. But that doesn't mean you don't need a backsaw. With a bit of practice a backsaw can become an extension of your arm, allowing you to make very accurate cuts quickly.

At that point, you'll find that there are times when a backsaw is actually a better option than a tablesaw or router, such as when you're building one piece of furniture rather than several identi-

cal pieces at once. For a one-off table, you can cut tenons on the aprons with a backsaw as quickly as you can with a tablesaw, because you don't spend any time setting up the blade's height, positioning a stop on your miter gauge, or dialing in the settings on your tenoning jig.

A backsaw makes even better sense for difficult joinery like angled tenons, where a tablesaw and routing jigs would require too many fussy setups. And there are parts, like bed rails, that are just too big to tenon on a tablesaw. Also, don't forget that for many

Setup

Start with proper posture

To saw straight lines, the tool must move back and forth in a straight path, like a piston. If you align your body with the saw, that straight cut happens naturally.



Hang on loosely. Grip the handle lightly with three fingers, your index finger pointing forward and your thumb wrapped around the back of the handle (1). For righties, the left foot goes out front (2). For lefties, it's the opposite. And your legs should be slightly bent. Finally, think of the saw as an extension of your hand, with a straight line running along the spine and through your hand, wrist, forearm, elbow, and shoulder, so they all work in harmony (3).



Your first saw should be for ripcuts

The best reason to get a backsaw is to cut dovetails and tenons by hand. Both involve a lot more cutting along the grain (ripcuts) than across it (crosscuts). So, when you get your first saw, choose one that's sharpened for ripcuts. The secret to a great-cutting saw is a great sharpening job. That means a saw from the home center won't cut it. Instead, get one from one of the best saw manufacturers, who do this well. I've had good experiences with saws from Lie-Nielsen, Veritas, Bad Axe, Gramercy, Adria, and Wenzloff & Sons.

Ripsaws come in a variety of sizes. Don't get the dovetail size—they are too small for large dovetails in casework. Instead, get a carcass saw, which can handle tenons and case dovetails, as well as dovetails for drawers and smaller items like boxes. Your first backsaw should be around 11 in. to 12 in. long, have 14 ppi (points per inch), and 2 in. to 2¼ in. of cutting depth beneath the spine. Don't worry about the crosscuts you'll have to make—a rip saw works just fine

for them. I've been using backsaws for decades and I don't own a crosscut saw. I've never had a problem with tearout or rough cuts. However, if you are willing to spend a bit more, there's a new type of saw that handles both rip- and crosscuts extremely well. The teeth have an old-school shape (called a "hybrid cut") that lets them cut across the grain just as well as along it. Both Gramercy and Bad Axe make this type of saw.



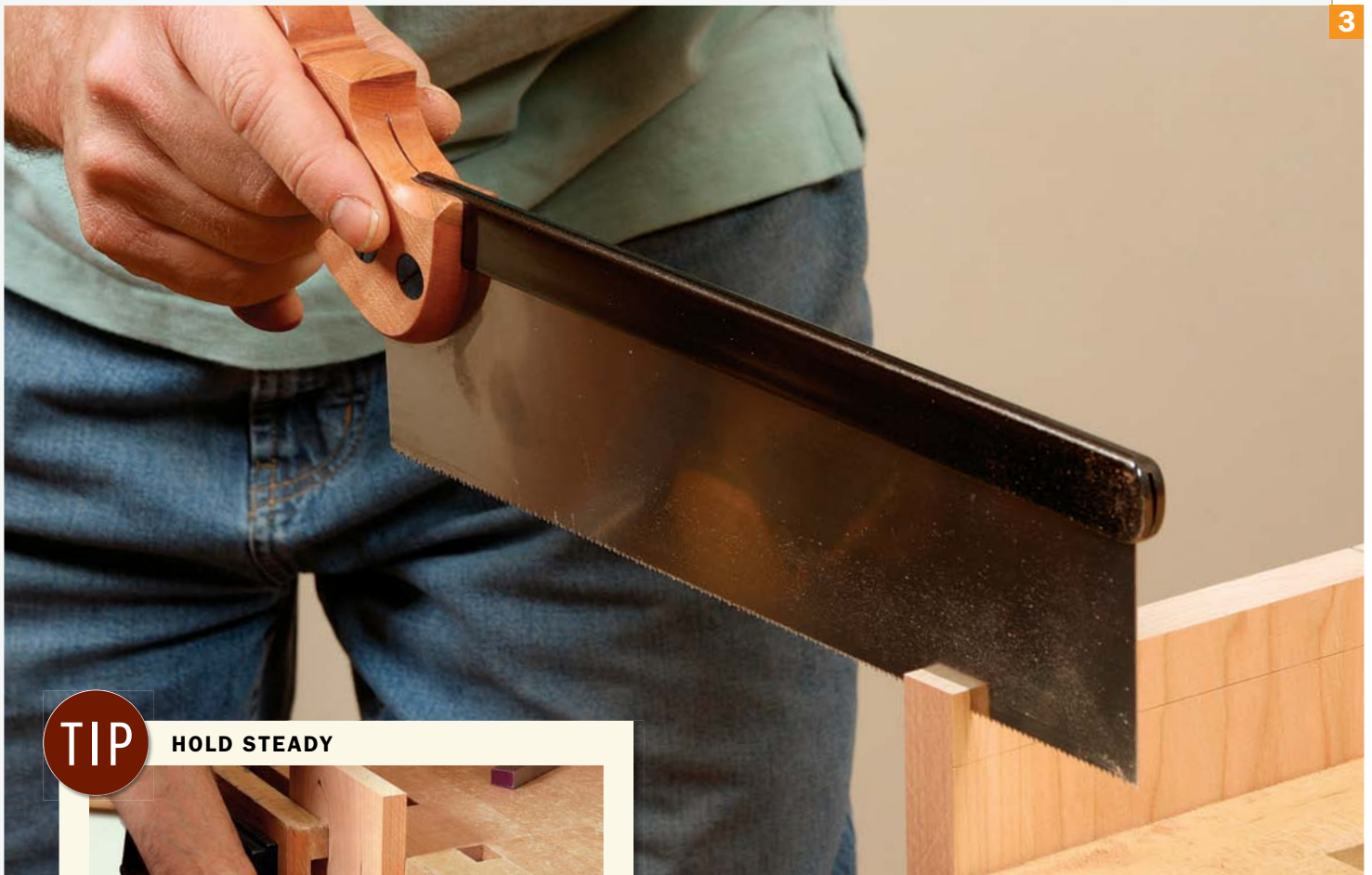
Basic technique

Learn to cut straight

The point of learning to saw is to cut joinery, but before you jump into dovetails or tenons, learn to cut a line straight and square to a board's face. That's the essential skill you'll need.



Start on the far edge. Align the cut with your thumb (1). Without putting any weight on the saw, gently push it forward. It's easier to get just a few teeth started straight at the back edge than to get a straight start across the board's entire thickness. Lower the back of the saw as you cut deeper (2). After reaching the front edge, bring the saw horizontal (3) and cut down to depth.



TIP

HOLD STEADY



It's difficult to saw fluidly and straight in a chattering board, a common event with cast-iron front vises, which only clamp a board on one edge. To eliminate vibration, clamp the board's other edge to the bench.

woodworkers, making furniture is as much about the journey as it is about the destination, and hand tools connect them to the act of creating a piece of furniture in a way that is more fulfilling than using power tools. Making furniture (and not just the furniture itself) becomes part of the reward.

In any case, to get to the point where you can use a backsaw with efficiency and accuracy, you need to learn proper technique and then practice it. I'll demonstrate how to cut straight, which is the most important skill, and I'll show you some exercises to

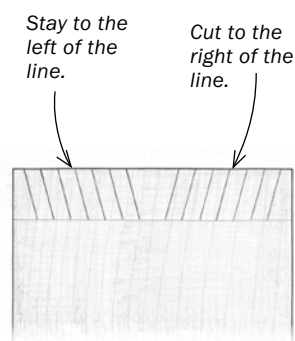
Conquer dovetails one cut at a time

Repetition of good technique is the key to good joinery because it creates muscle memory. Don't worry about complete joints at first. Instead, spend time practicing the individual cuts that make up a tail and pin.



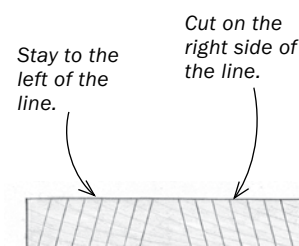
TAILS

Practice should simulate the real thing. Lay out both sides of the tail on the same board. For the cuts right of center, always cut to the right (waste side) of the layout line as you would on real dovetails. On the left side, do the opposite.



PINS

Same goes for pins. Lay out both angles on the same board and cut to the right of the line on the right half and the left of the line on the left half. Line up your body with the angled cuts.



help you ingrain the correct mechanics in your body. I'll also give you some tips on sawing the two most common joints: dovetails and tenons.

One note before we get started. Although Japanese saws are wonderful tools, I prefer Western backsaws for joinery. I find their pistol grip and D-shape handles are more comfortable and make it easier to control the saw. Also, in my experience, Western saws are less prone to drift and deflect in use, because their blades are thicker and stiffer than those on Japanese saws, which are designed to be pulled rather than pushed.

Good posture is the key to cutting straight

Sawing well is an activity for your entire body, from your feet and legs to your arms and hands. So, before you pick up a saw,



Break down tenons, too

Shoulder and cheek cuts are straight but big, and there's a strategy for handling each one. Shoulder cuts are first. The cheeks follow.



Practice the two basic cuts

It takes crosscuts and ripcuts to make a tenon. Practice them separately.



Here's the drill for shoulders. Use a saw hook and your off hand to keep the board still. To get used to cutting down to a horizontal line, mark the depth on both edges.



Long cuts for cheeks. It's important that the depth of your test cuts replicate what you'll do for tenons, so they should be $1\frac{1}{2}$ in. to 2 in. deep. Practice following the steps on the facing page.

How to cut clean shoulders

Shoulder cuts are tricky because aprons and rails can be several inches wide. It's hard to track a straight cut across that distance.



Make a track. After cutting your layout lines with a knife or marking gauge, use a chisel to create a V-groove along the shoulder line. You'll get a clean shoulder that will keep the saw cutting straight down.



Shoulder tracks the saw. Set the teeth in the V-groove, against the shoulder. Lower the blade until it rests in the groove across the board's entire width before you begin to cut.



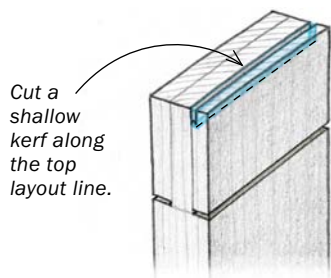
Let the saw do the work. There is no need to put any downward pressure on the saw. Its own weight is enough. The teeth will cut without any resistance or catching.

4 steps to great cheeks

This method lets you cut along just one layout line at a time, with each new cut guided by the previous one.

1

Across the end grain. Make a shallow kerf, starting at the far corner. You'll use it as a guide to keep the saw straight as you continue.



take time to learn how to position your body. Your legs should be spread, one foot in front of the other, with knees slightly bent. Your torso should be turned, too, so that your arm can move forward and back in a straight line. If you have to swing your arm around your body, you cannot saw straight.

The distance between you and the workpiece is also critical. If you're too far away or too close, your arm will curve and your cuts will, too.

When you pick up the saw, hold it gently. And don't put any downward pressure on the saw as it cuts. A sharp saw—which yours should be—needs no more than its own weight to get the job done.

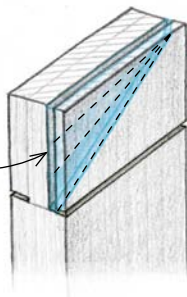
In addition to having the right body mechanics, you also need a bench that's rigid, so it doesn't flex or deflect under use. And it should be heavy or bolted down, so it doesn't skip over the floor. It needs a vise and a saw hook for holding parts. And don't forget to have good lighting around the bench so you can see what you're doing. □

Chris Gochnour has taught many woodworkers to saw straight and clean (chrisgochnour.com).

2

Work down the near edge. Angle the saw up and cut down the layout line closest to you.

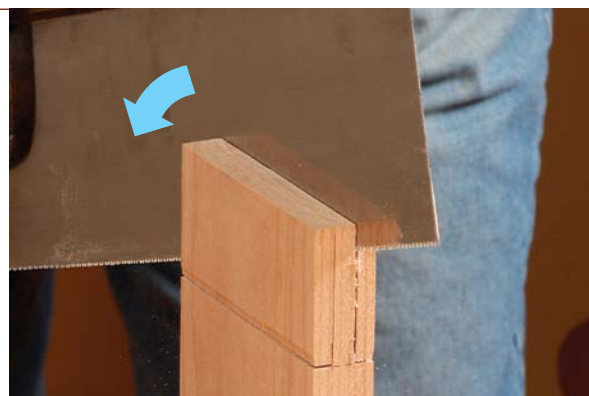
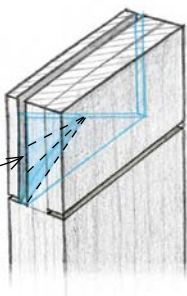
Work down the front layout line without cutting down the back one.



3

Cut down the other edge. Turn the board around in the vise and make another angled cut.

Cut along the layout line.



4

Level out and finish the job. All that's left now is a triangle of waste, but you have three straight kerfs to guide the saw as you cut down the middle.

Cut down to the shoulder.

