



## Restore a Broken Saw Horn

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By

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**A**n old saying among Special Forces Medics goes along the lines of “to cut is to heal.” There’s a lot of truth to that when restoring a fractured handle where chunks of wood are missing, and usually it’s the upper or lower horn. It is also quite common to see splits in the cheeks of one’s handle where the fasteners pass through. The purpose of this chapter is to discuss how to do just that: repair the upper horn of a broken saw handle.

**Concept:** To explain the process in a nutshell, you’ll cut a 90-degree notch in the upper handle to waste the damaged section, and then glue in an oversized block of a quality fruitwood (cherry, walnut, apple) with the grain running in the same direction as the main handle. After the glue has set up, you’ll then draw out the contour of the new horn, then saw, chisel, rasp and sand it into final form before staining it to match the rest of the handle. Following is a step-by-step procedure with suggested tools and supplies.



1. **Sketch out a plan:** Assess the damage and draw a 90-degree notch to outline the damaged part of the horn you will cut out. Why a 90-degree notch? So that the wood you'll glue on will adhere to both end and long grain. It's common to see a repaired horn where the previous owner simply lopped off what's left of the damaged horn and glued on replacement wood end-grain to end-grain. This is an inherently weak method, and the new horn will bump off at the slightest provocation without ensuring you have long grain in the equation.



2. **Make your saw handle cut.** Cut the 90-degree notch into your saw handle. That's right, Himalayan mountaineer, you're going to amputate that gangrenous big toe. Just gird your loins, take a shot and make it happen. 😊

3. **Select and cut replacement wood.** I'd suggest a quartersawn chunk of fruitwood, such as cherry, walnut or apple if you can find it. Why

quartersawn? Because any quality saw handle will be milled from quartersawn stock, which mitigates wood movement given seasonal change. Likewise, you'll want replacement wood to come from quartersawn stock. You're going to make a square, rectangular cut of wood oriented such that the direction of grain will match the direction of grain in the saw handle.





4. **Match the oversized block of replacement wood to the handle.** Place the replacement wood onto the notch you've created in the saw handle and inspect for any air-gaps and grain orientation. You'll want a piston fit, and the grain flowing in the same direction the handle has.

5. **Glue-up.** Now glue the replacement wood into the 90-degree notch you've sawn into the

handle. it doesn't really matter which brand of glue you use.

You're a woodworker—use what you have faith in. Hold it tight with your hands for a couple of minutes for the initial contact and to let the glue set up, then mount the saw upright in your bench vise. Apply masking tape and/or rubber bands to add a little compression in the equation. Take care not to create any air gaps during this process; the intent is to compress both pieces of wood together for a piston-fit. You're now done for the day; let the glue line set up overnight.



6. **Sketch out the new horn.** Clasp both saw handle and replacement wood with one hand, and sketch the outline of the new horn. Just freehand it—your eye is a great judge of what it needs to look like, and you'll creep up on the look and feel of



your new horn as you saw, chisel, rasp and sand it into final shape and contour.

7. **Waste away the big chunks.** Saw and chisel off the wood outside your contour sketch, taking care to remain proud of both the thickness of the replacement wood, the depth, and the length. The intent here is to lessen the remaining wood to be rasped and sanded off, not to be precise. Critical at this point to leave your grafted block slightly proud of the handle along all three axes.



8. **Scrape, sand Dremel and contour to final form:**

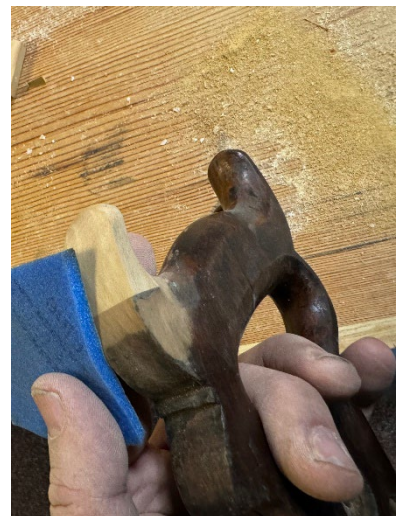
Use the coarse, medium fine approach using a variety of tools to attain final form. Your eye and how the upper horn feels in your hand will tell you when you're done. I generally start by sawing



off excess wood just proud of the line, then paring gently away with a chisel. At some point, you'll want to take the handle to a belt sander if you have one, followed by rasping. I like using the handle rasps made by [Gramercy Tools](#) and [Logier](#), both available at various resellers like Tools



for Working Wood and Highland WoodWorking. Dress up to final shape and contour to your satisfaction using a Dremel—the coarse brown sanding wheel is ideal for this mission. Blend the replacement wood with the saw handle by sanding all the way to the glue line,



such that you wind up with a seamless transition.

9. You're quite nearly done at this point. All that's left to do is stain the wood. Given that most vintage saw handles are so dark, I like using the General Finishes Java Gel Stain. It doesn't really matter if it's an exact match—just stain the wood—or not—to your desired tone, and you're done!

