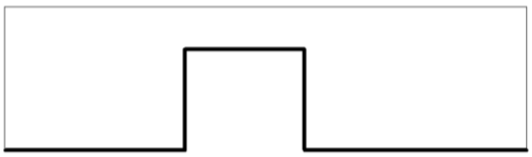
Cutting a Notch With a Bandsaw, Version 1.3

By R. G. Sparber

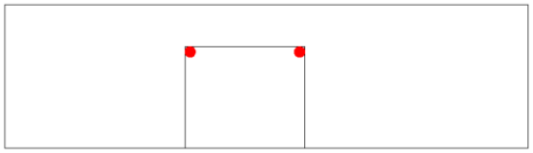


Every once in a while, I need to cut a square notch in a piece of stock. About half way through the task, I realize that a bit more planning *would* have been smart. Today I decided it was time to give this a bit more thought.

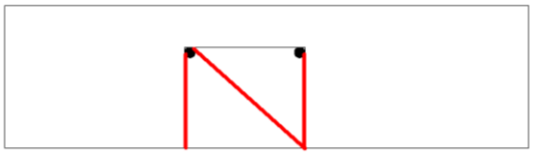
It is easy to make cuts perpendicular to the edge.

If the slot is narrow enough, repeated cuts will do the trick. I take a screwdriver and pry between cuts until the slivers break off. A bit of filing at the far end and I'm done.

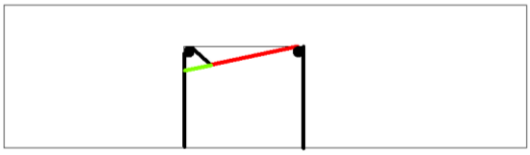
When making repeated cuts gets to be tedious, "successive approximation" works.



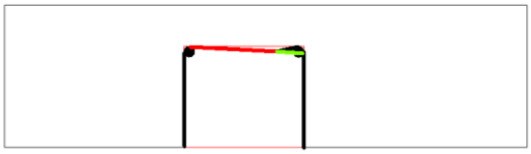
I start by drilling a hole in each corner tangent to the layout lines.



Next, I make 3 cuts: two straight in and one diagonal. It is fairly easy to hit the tangent of the holes with the straight in cuts since I have layout lines defining the final notch. But sawing that diagonal by eye so it lands exactly in the corner is not easy. Given that the hole is there, it is also not necessary. Just head for that hole and avoid the layout lines. The diagonal cut may not even be straight. No matter.



The green line represents my bandsaw blade. I angle it to cut as close as possible to the back layout line. As with the diagonal cut just completed, I want to reach the hole and not try to aim for the exact corner.



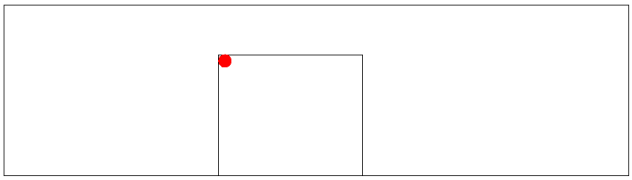
The pattern repeats but this time I start on the right side and cut to the left hole.

After a few cycles, the blade will be so close to the back layout line that it will be hard to keep the blade cutting. I switch to a file and square up the corners plus file down to the back layout line.

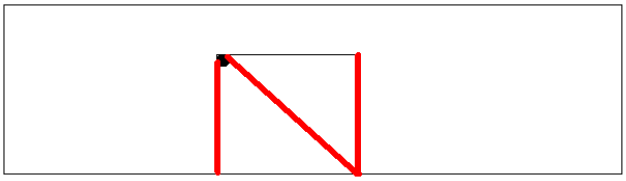
After publishing this article, I received some great alternate approaches.

Shorter Total Cutting

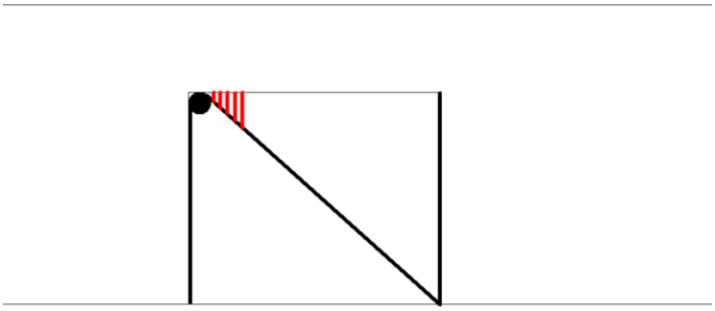
Dave Kellogg suggested what sure looks like a better method.



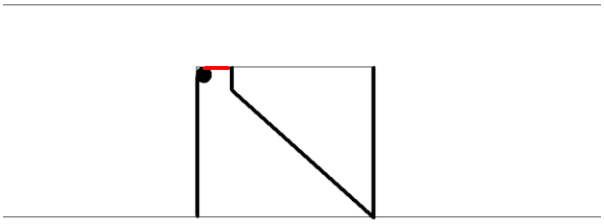
Drill a hole in one corner that is tangent to the layout lines.



Make the flanking and diagonal cuts.



Then Dave reverts to the series of parallel cuts. But since they are short, it is not as tedious.

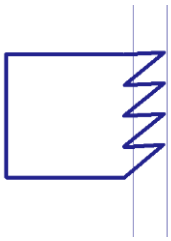


When the slivers are broken out and the area filed down, we are left with a gap that will accept the flank of the saw blade. We can then saw right on the layout line all the way to the opposite corner.

Way to go Dave!

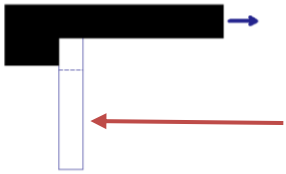
Alternate to Filing

John Herrmann cuts sideways with his bandsaw.



He can remove material up to a depth almost equal to the length of the teeth.

This is a top view.



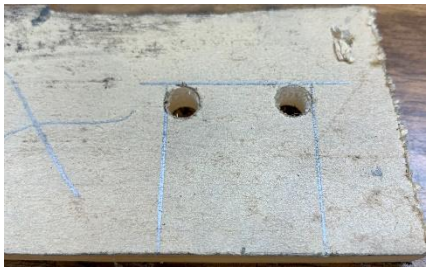
The stock is moving to the right

and the blade is vertical.

If the stock is up against a fence, the cut surface will nicely follow the layout line.

Gotta try out these ideas!

I drew out a notch on a piece of 3/8 inch thick plastic.



Corner holes drilled using a ¼ inch bit. Oops, I only needed to drill one hole.

Sawed one flank and the diagonal. Forgot to saw the other flank but that will be done later.

Using Dave's technique, I cut a series of short slots.

The slivers were broken out with a screwdriver.

I then used John's technique to cut down to the line.

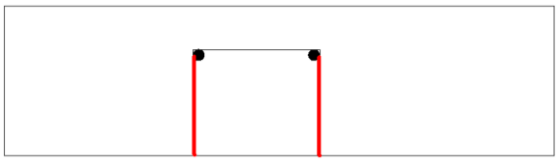
I’m ready to saw along that back layout line.

When the side flank has been cut, I’m done sawing.

The beauty of this combined technique is that so few saw cuts were made. A minute with a file and this notch will look great.

On Thin Stock

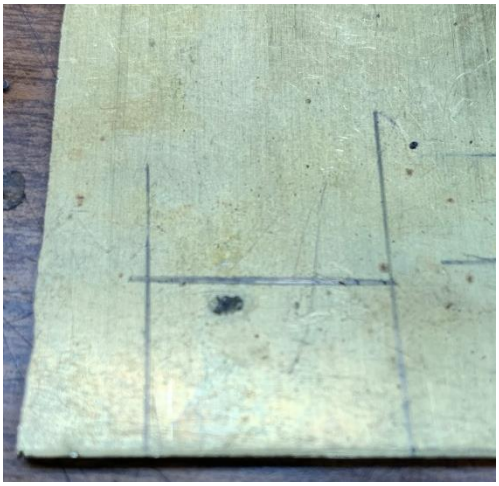
Dennis Macintyre is in the “git ‘er done” camp: very quick and maybe a little dirty. This only works for material that bends and will crack, like metal and some soft plastics.



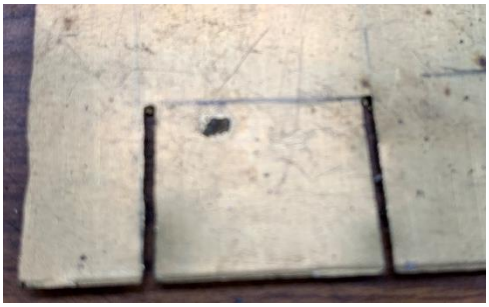
After drilling the corner holes, he saws the flanks. Then Dennis holds the scrap part of the stock with pliers and bends back and forth until it breaks off.

If the stock is a bit thick, more holes can be drilled along the back layout line. This will both weaken the area and guide the resulting fracture line.

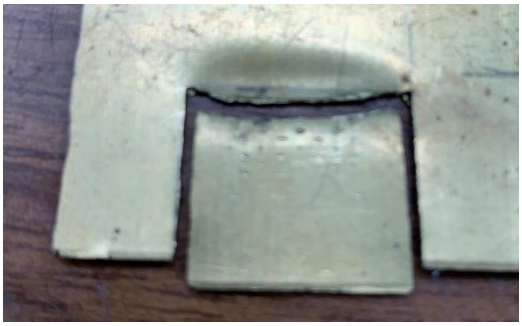
There is the possibility that the fractured area will be bent and need subsequent hammering to return it to flat. In many application, straightening is not needed.



I have laid out a notch in some steel about 50 thou thick.



I chose to just saw the flanks and not drill the corner holes.



After bending the tab a few times, it broke off. Notice that the break was on the scrap side of the layout line which is certainly a good thing. You can see distortion of the metal on the other side of the line, a bad thing. A few whacks with a hammer should flatten it out. Then a file will remove the remaining metal down to the line.

Had I drilled holes along the layout line, there would have been less distortion and it would have been easier to bend the tab.

I welcome your comments and questions.

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Rick Sparber
Rgsparber.ha@gmail.com
Rick.Sparber.org