Sawing Thin Tall Stock in a Horizontal Bandsaw, Version 1.1

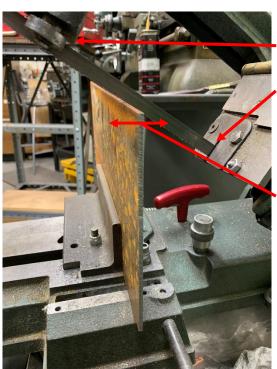
By R. G. Sparber

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There are numerous times that I need to saw tall pieces of thin stock. A common method is sandwiching pieces of heavier stock around the thin stock and then using clamps to form a more rigid assembly. Today, I had no suitable stiffening material.

Another option is to raise the arm and set the saw up as a vertical bandsaw. I would then push the material into the blade. The 1/8-inch thick stock I must cut requires a lot of force to cut this way. A few inches is tolerable, but I had a few feet to cut.

Instead, I tried cutting the stock in the horizontal position without stiffeners.



Take a close look at what is happening. The saw blade moves from the upper blade guide, on the upper left corner, diagonally into the lower guide on the right.

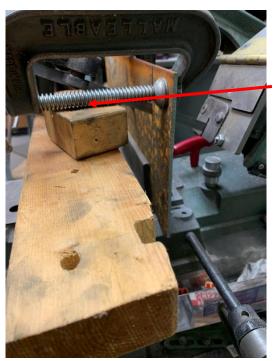
The stock initially bends to the right and then springs back to the left. The cycle repeats, with reducing severity, as the blade approaches the top of the vise.

This vibration is terrible for the blade and for my hearing.

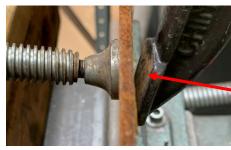
All would be fine if the stock would bend in one direction and stay there. Now, there's a good idea!

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I built up a platform next to the thin stock by stacking a 4 x 4, a 2 x 4, and a small block. Then, I put a C-clamp over the stock away from the saw cut and let the threaded part rest on the small block.



I pushed down on the clamp over the stock, which caused the clamp's anvil to tilt with respect to the stock.



As I tighten the clamp, it will tend to become perpendicular to the thin stock. However, since the threaded part of the clamp is resting on the wood block, the top of the stock is forced to bend slightly to the right.



I've preloaded one end of the stock.

I repeated the operation with a second C-clamp on the other side of the saw cut.

The top of my stock is now slightly bent to the right and cannot move to the left due to the two clamps pressing down on the stack of wood.



The stock no longer vibrates as I sawed down more than halfway.



When the saw's arm contacted the top of the stock, I removed the clamps, flipped the stock over, aligned the saw cut with the blade, replaced the two clamps, and continued sawing.

The two cuts rarely align since my blade does not perfectly track vertically. I'm typically off by half the thickness of the blade. If I needed a straighter edge, I would clean up the cut on my belt sander or, for more accuracy, my vertical mill.

I welcome your comments and questions.

Acknowledgments

Thanks to Bill Meyers, Marv Klotz, and John Hall for reminding me of the standard approach of stiffing thin stock with heavier scrap. Thanks to Halley Lisle for helping me see that my description of the C-clamp action was unclear. Hopefully, it is better now.

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