

# Why Parts Sometimes Shift When Tightened, Version 1.0

---

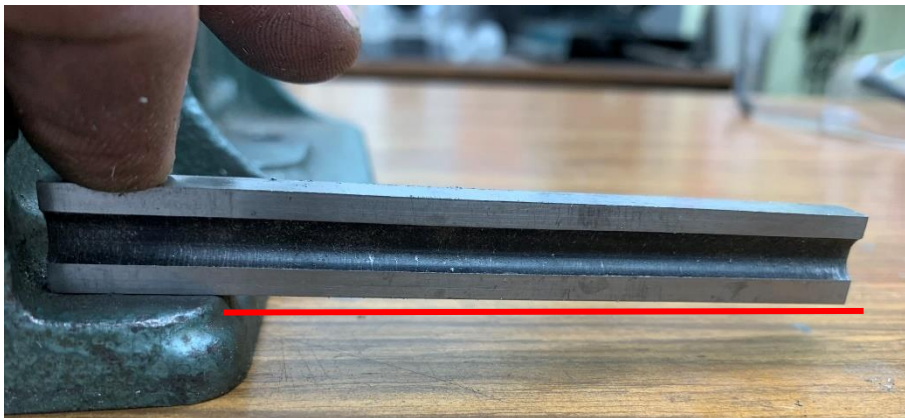
By R. G. Sparber

Protected by Creative Commons.<sup>1</sup>



Recently I wanted to set the fixed jaw on my bandsaw perpendicular to the blade<sup>2</sup>. I pressed the jaw against a 1-2-3 block and then tightened the jaw's screws. Re-checking the alignment, it was clear that the jaw had moved. Hmm. I'd see this behavior before.

The jaw was cast iron which means that surfaces often have a slope. This slope is necessary when extracting the pattern from the molding sand during the casting process.



Sure enough, placing a parallel on the top surface around one of the screw holes showed the slope.

So as the screw is tightened, it causes the jaw to slide sideways.

---

<sup>1</sup> This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

<sup>2</sup> This method will be part of another article.



A few passes on my mill cut a surface parallel to the bottom of the jaw's flange around each screw hole.



I repeated my alignment procedure and the jaw stayed put.

I welcome your comments and questions.

If you wish to be contacted each time I publish an article, email me with just "Subscribe" in the subject line. If you are on this list and have had enough, email me "Unsubscribe" in the subject line.

Rick Sparber  
[Rgsparber.ha@gmail.com](mailto:Rgsparber.ha@gmail.com)  
Rick.Sparber.org