

# Sawmill Forum

BY CASEY CREAMER

## When you do saws, do you use a hammer or a roll, and which is better?

My first answer is yes. I use a hammer and anvil to do leveling and tensioning, and I also use a stretcher roll to do tensioning, and I use a leveling setup on the stretcher roll to do leveling. Which tool is better depends on exactly what you want to do to the saw at any given moment during the saw hammering process.

There are a few things that you can't do with the stretcher roll. If there is a bend right at the edge of the bore (center hole), the standard stretcher roll is not capable of reaching that particular area. Your only choice is to hit that area with a hammer. Years ago, I used to hear the standard saw doctor maxim that you should never hit the saw with a hammer in the eye, meaning anywhere between the collar line and the bore.

It is true that you really should avoid using a hammer on the collar line because the resultant dents will create a lot of distortion out at the rim when you tighten the nut on the collar, if the collars are bearing directly on those hammer marks. I also think the old saw doctors didn't want us to tension the saw anywhere below the collar line. We do need just enough tension in that area to be sure that there isn't negative tension. But we usually don't have to beat up that area to achieve that goal. If

there is negative tension in the eye, chances are that the eye will manage to gain tension in a collateral way by leveling with a hammer just outside of the collar line.

It is often a struggle when leveling with a hammer just outside of the collar line to prevent building up too much tension in the eye. So when it is needed there, it shouldn't be too much of a challenge to gain just a little in that area.

But when there is a real bend anywhere inside of the collar line, it has to be straightened. You would not want to build a house on a crooked foundation. And the eye of the saw can be considered its foundation because of the way that everything radiates out from the eye all the way to the rim. For example, if you had a perfect saw (of course, I have never seen such an item) and you put a .005" lump just under the collar line, the rim of a 56" saw would subsequently measure over .050" runout. To be sure, we have to be extra careful when working that part of a saw, but a bend is a bend no matter where it is. And a bend in that foundational area of the saw will definitely have to be straightened before you can do much with the rest of the body of the saw.

Sometimes there is a bend right on the edge of the bore. Other times, you may see a bend at each of the pin holes. If you want a level saw, you have to first make sure the eye is as level as possible. When I teach saw hammering, I allow students to bring their own saws to work on. And if any of those saws has a bend in the eye, most of the students seem to react about the same. Once I inform them that they have to level that area, they get nervous and start to sweat a little. When they do reluctantly





hit the saw in that area at my direction, they usually hit it so gently that the saw just laughs at them. Unfortunately, when you are dealing with a saw that has normal tension or is a little low on tension and has a bend in the eye, you generally have to hit it with some rather aggressive blows. It is a sensitive area, in that everything radiates out from there, but it often takes a pretty good hammer blow to get anything to move in that area.

If you hit that bend too hard, it will go through to the other side just like any other bend. But the problem is that if you have to bring that bend back from the other side, you will end up stretching the eye too much and building too much tension in that area. That problem is fixable, but it is not easy to get the extra tension out of that area. So, when leveling in that area, it is extra important to figure out just how hard you have to hit it to get the bend down without going through to the other side.

That's basically the plan when hammering anywhere on the saw, but it is even more important in the eye.

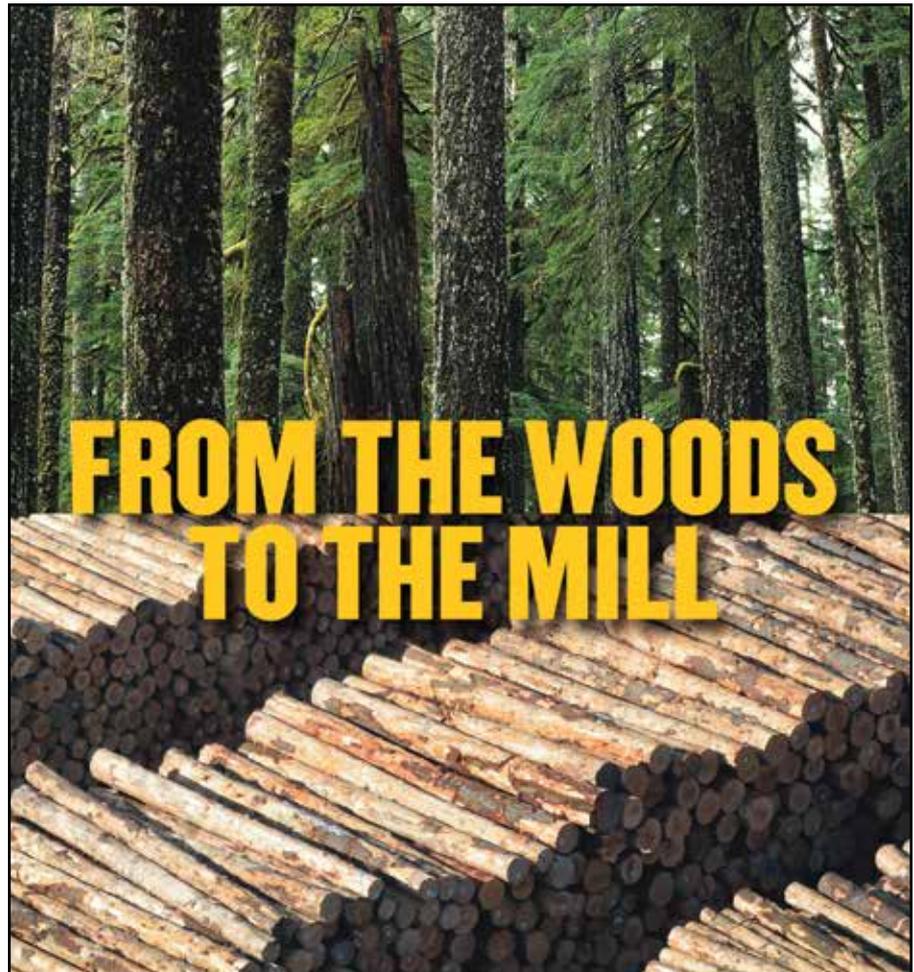
I do try to use the stretcher roll whenever it is more convenient for me. But there are a few times when only the leveling setup on the stretcher roll will do the job properly. It's not uncommon for a saw to come in with a severe bend right on the collar line. Hitting that with a hammer would stretch that area too much, and leaving hammer marks on the collar line would not do the saw any favors. But the leveling roll will efficiently straighten the saw in that area without leaving any distortions and without gaining tension in that area.

We would also rather not leave any hammer marks in the guideline of the saw because that will make it rattle between the guide pins. If there is a bend in that area, the leveling roll becomes an essential tool.

I have heard that if you put tension into a saw with the stretcher roll instead of hammer, it won't hold its tension as long. That is utter nonsense. Whether tensioning or leveling, you either move the metal the right amount, or you don't. Once the saw is in the proper configuration, it really doesn't care how it got there. Saws that don't hold their tension as long as you

think they should have either been mistreated, or just weren't put up as accurately as they should have been.

*Questions about sawmills and their operation can be sent to Casey Creamer, saw doctor and president of Seneca Saw Works, Inc., PO Box 681, Burdett, NY 14818, (607) 546-5887. You can also reach out by email: [casey@senecasaw.com](mailto:casey@senecasaw.com).*



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