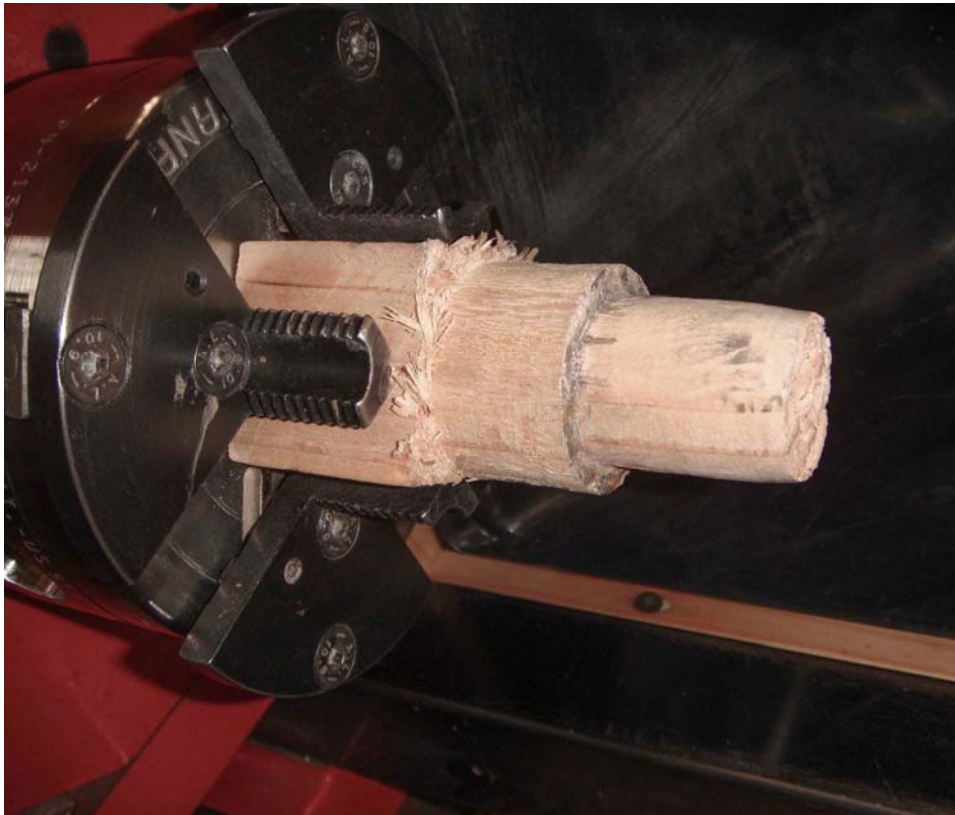


## Preparing A-Arms for Polyurethane Bushings by Stephen Nelson

Don't you just love it when the instructions say to do something, like "polish the insides and faces of the pivot sleeves on a Pantera's A-arms"? If you are replacing the factory rubber suspension bushings with the polyurethane bushings it is important that the tubes that the bushings ride in are polished wherever the bushings rub.

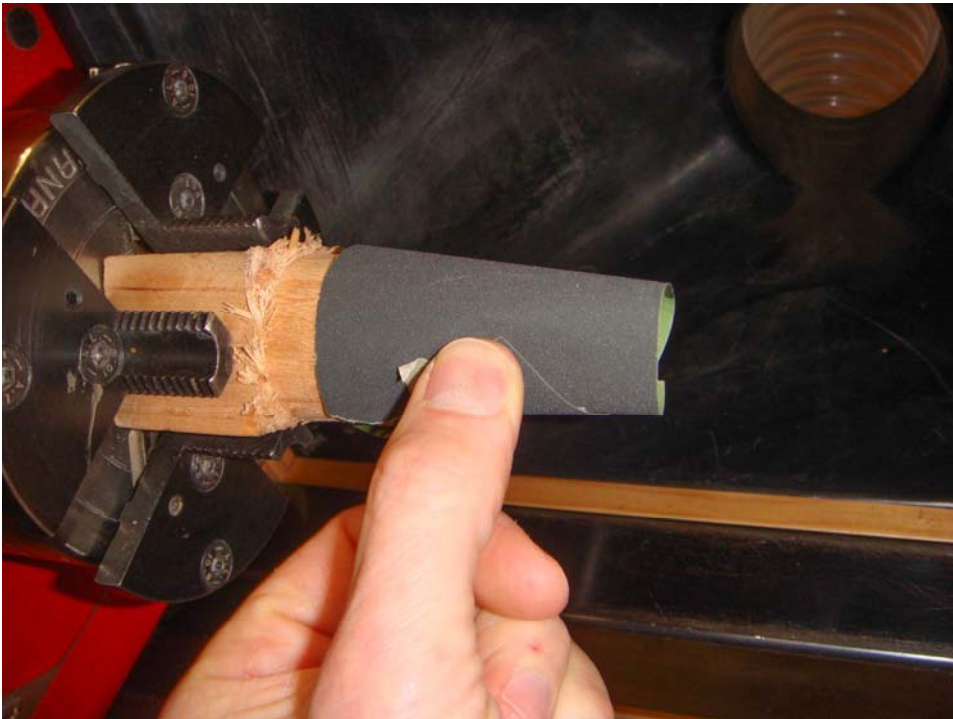
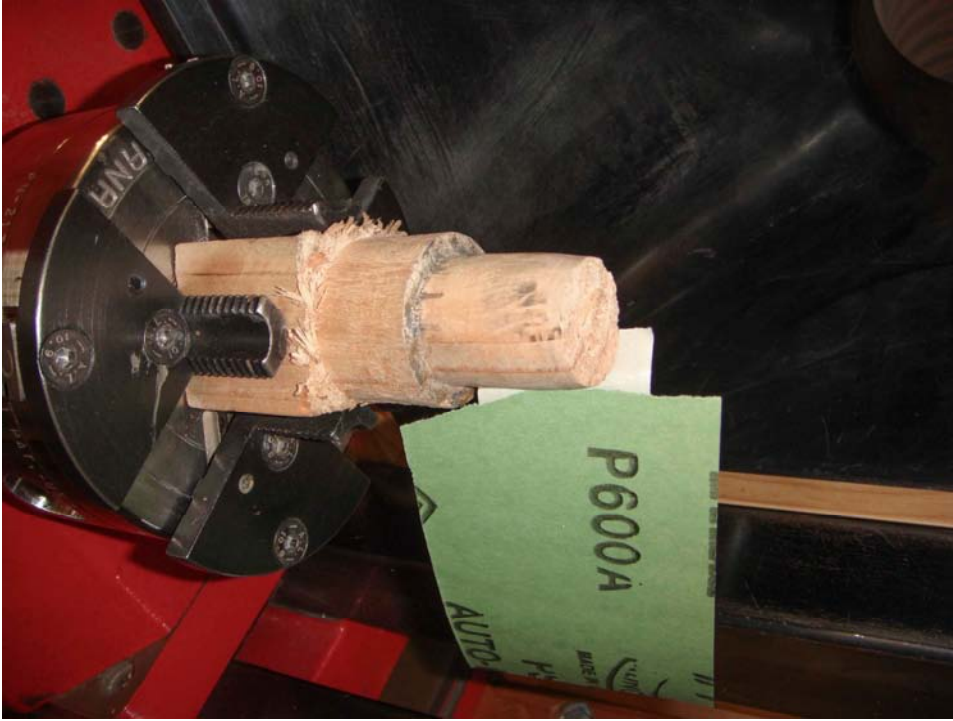
OK – I could see how to polish the inside of the sleeves, but what about the ends of the sleeves?

I first turned a plug out of a piece of wood such that the smaller part of the plug slid into the sleeve, while the large section had a larger diameter than the outside of the sleeve:



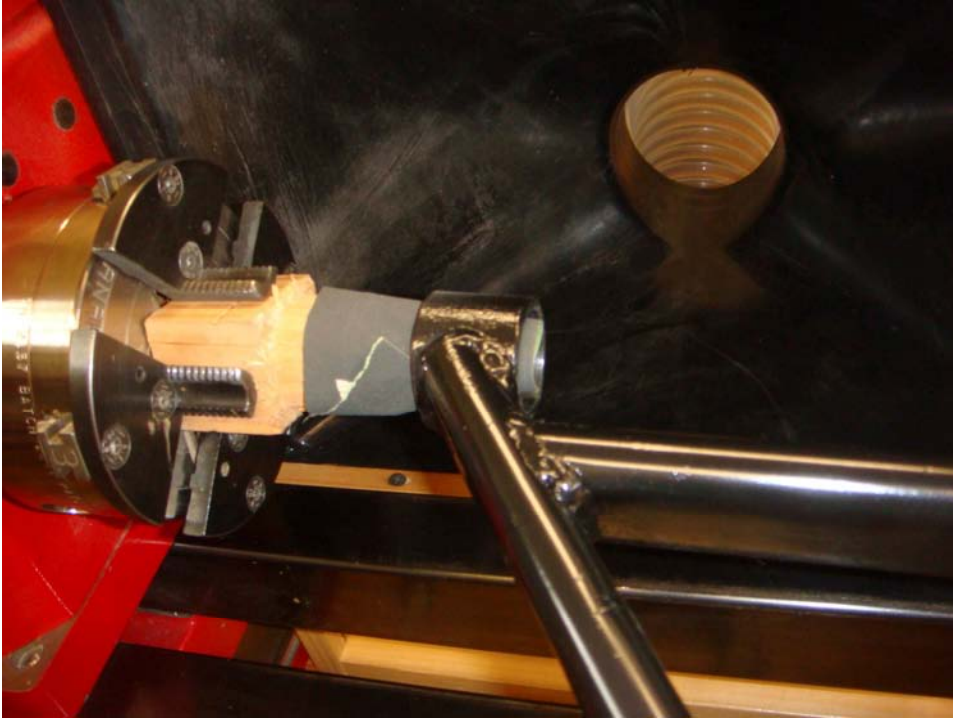
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I then taped a piece of 600 grit wet or dry sand paper to the smaller section

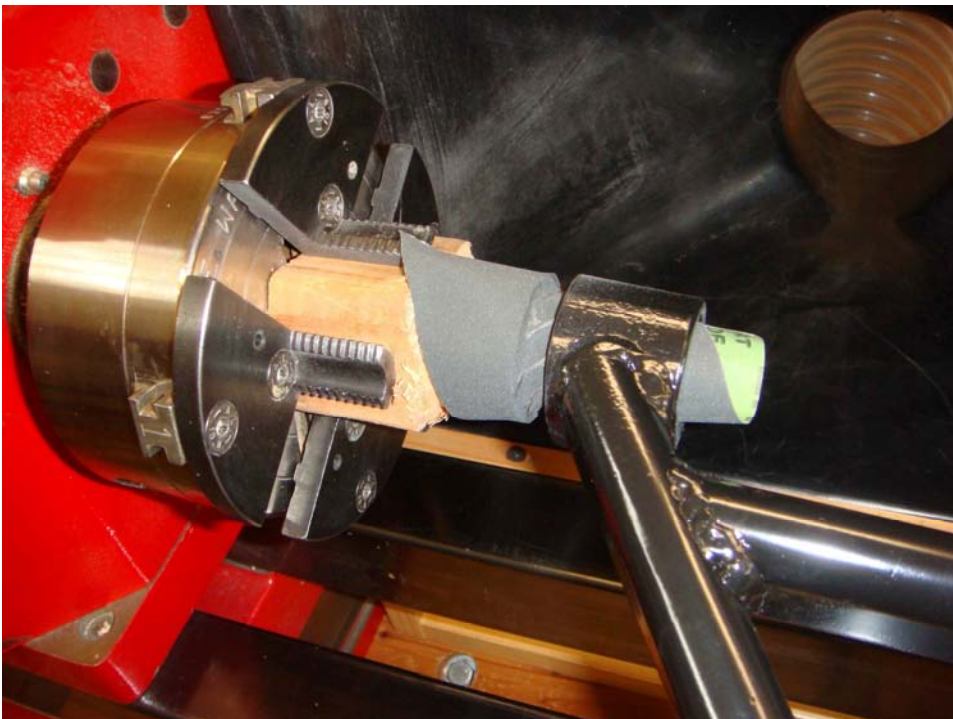


Wrapped it around the dowel with part on the larger section. Goal was to form a cone that could be started into the sleeve.

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Here the sleeve is started over the cone of sand paper



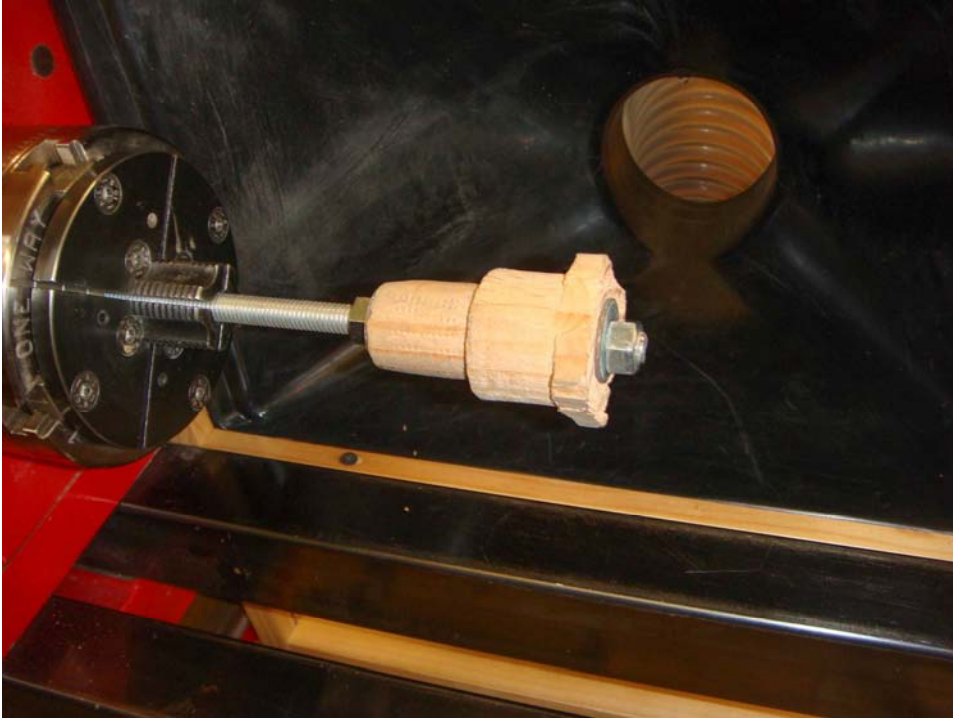
And this is what the paper looks like after you have started up the lathe and slid the sleeve up against the shoulder. In as much as I was first polishing off the coating I had



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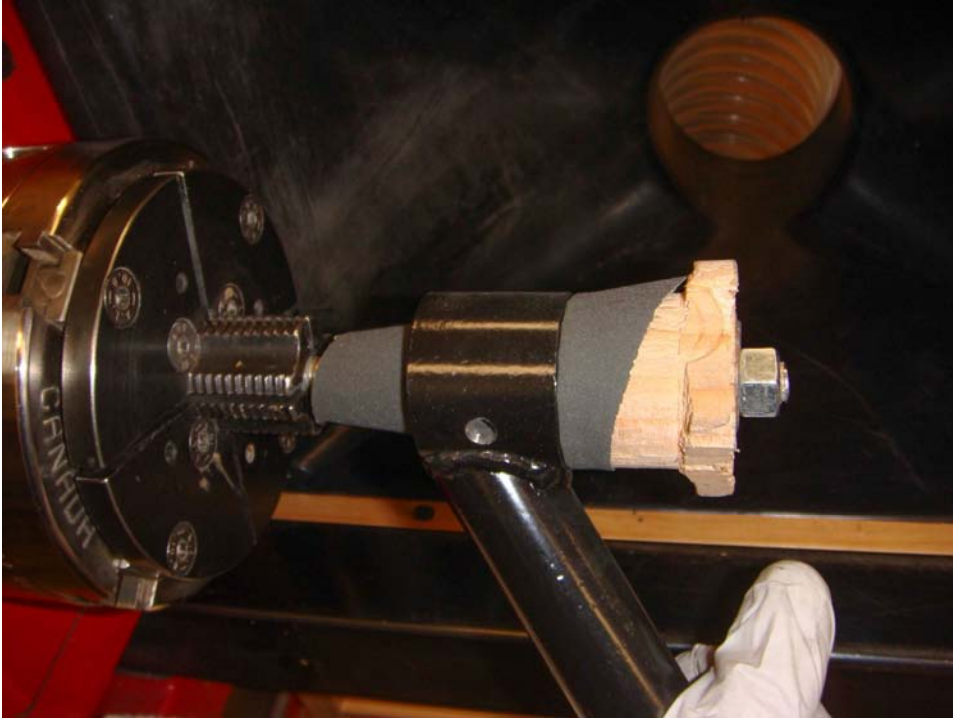
applied to the A-arms, it took a bit to get everything nice and shiny. Like 4 pieces of sand paper.

After doing all of the outer edges of the sleeves I needed to do the inner edges. So, I drilled a hole through the center of my plug, inserted a piece of threaded rod, and chucked up the threaded rod in the lathe headstock.



Much like before, I taped a piece of sand paper to the plug, held the paper in place with one hand while releasing the threaded rod from the chuck, sliding it through the sleeve until the cone was up in the sleeve, then chucked up the rod again – ready to polish!

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When done with the outer and inner faces the inside of the sleeve had been some-what polished, but not nearly enough. Note the hole in the sleeve for the grease zerk – it is best to have these drilled and threaded before you polish the inside so that you polish away any rough edges on the zerk hole.

Anyone who has worked on brake cylinders is likely aware of how one can wrap sand paper around a dowel or a drill bit and polish the inside of the cylinders. You tape a piece of sandpaper to the rod, then turn the rod in the direction it will be spun and wind the paper onto the rod. Figure 1 shows the first part of this.

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After I have rotated the rod I then feed in another piece of sand paper, which is sandwiched inside of the first piece, so that it can then be wound onto the rod. Figure 2 shows the second piece being added:



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If your rod is just the right diameter you can now wind the second piece of paper onto the rod and, as you continue to turn the rod, slide the wound sand paper into the sleeve you want to polish. Figure 3 shows that I had to turn down the diameter of the rod so that I got the tight fit I wanted for the sand paper in the sleeve:



Figure 4 shows the rest of the set-up:



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The dowel is chucked up in my wood lathe, with the end of the dowel steadied by a cone in the lathe's tail-stock. Fortunately I have a dust collection system in the wood shop – hence the collection hood behind the sleeve being polished.

Fire up the lathe and, if you wound the sand paper onto the dowel in the right direction you are polishing. Otherwise the tape comes loose from the dowel and the dowel spins inside of the sandpaper.

It takes several pieces of sand paper to polish each sleeve. I reversed the sand paper (end for end) that was sandwiched under the piece that was taped to the dowel so that I would use both ends of the strip of paper.

My lathe was a perfect length for all this. Note the towel between the A-arm and the lathe bed – keep from dinging the new coating on the arm.

When done the faces and edges were beautifully polished!