Do those wooden spokes on your vintage Chevy look tired and need replacing? Have you wanted to replace them but the cost was prohibitive or you were uncertain where to get them replaced? Well, why not re-spoke your own wheels - too difficult, you say? That's what I thought until my good friend, and early Chevy enthusiast, Carmine Palazzo "took the wheel by the spokes" and did it. I was impressed! Thus, this article gives you some tips and encouragement to re-spoke your own wheels. Yes, you will need a wood lathe, talk to one of your friends he may have one you can borrow or keep your eyes on second hand sales to pick up one at a reasonable price. When finished with your spokes, you can re-sell it. An original spoke and three stages of a new spoke are shown in Photo 1.

The first step is to remove some of the spokes and carefully measure them. Measuring more than one is recommended because they may be slightly different - take an average. Make a mental note of how hard it is to remove the spokes. It should be just as difficult or even more difficult to get them back in. This depends on how loose the originals were. Make a drawing of the spoke or modify the one shown in Figure 1 to fit your needs. Select oak for your project. Warning - don't use pine, fir or some other soft wood - it isn't strong enough. If in doubt, take an existing spoke to your local lumber yard or hardwood dealer for help in selecting the proper hardwood for your new spokes.

It is suggested that you make a test spoke first to check out your process and assure that your dimensions are correct. Make the blank spoke about 1 inch longer than your drawing shows for the finished spoke. This will provide working room at the small end of the spoke during turning. A table saw works well for cutting the blank. Mark and center punch the center of each end of the blank spoke to center in the lathe. For consistency, a simple fixture should be made to assure that each spoke will be the same. The next step is to set up and cut the two angles at the hub end. The angle is 360 degrees divided by twice the number of spokes in the wheel. The angle for a 12 spoke wheel is 360/(12x2)=15 degrees. The angle must be exact, no room for error here. It is highly recommended that a fixture be made to assure uniformity.
Photo 2 shows a simple wooden fixture and the angle being cut with a bandsaw. Center the spoke in the lathe head and tail stock and turn it to the diameters and lengths required. Photo 3 shows a spoke during turning and the chisel used for the large diameter.

Photo 4

The home made calipers shown in Photo 4 are not required but is a quick and simple way to check the diameters. Go slow and frequently compare the spoke being made to the original. When the turning is completed, the spoke can be removed from the lathe and trimmed to length with the bandsaw. The bandsaw can also be used to cut a radius on the hub end to match the hub and other minor chamfers. Compare the new spoke with the original; make minor adjustments to your drawing and your procedure. Continue with another test spoke or the final set of spokes. Don’t hurry - patience is an asset. Remember, you are the craftsman, quality inspector and end user. Mistakes your friends won’t see, you will see forever!

One way to install a set of spokes is to put the small ends in the wheel and tilt the hub ends up to form a tepee. Force must then be uniformly applied downward to the hub ends to snap the spokes in place. A large press would be handy for this operation. However you could place the wheel, with the tepee up, between the ground and your car, preferably a Chevy. Place a piece of wood on top of the tepee to distribute the load and then use a hydraulic jack between your car and the piece of wood to produce force to snap the spokes into place. Also, place a piece of wood, with the correct thickness, between the ground and the underside of the tepee to assure that the spokes are not forced too far in the other direction. Conversely, jack up the car and let its weight, when released, do the work. Warning - in either case, don’t get under the car unless it is supported by jack stands. Better yet, don’t get under the car at all. Install the hub, it must be a snug fit. Drill the bolt holes in the spokes using the hub as a guide. Install the bolts securing the hub to the spokes.

The spokes, if desired, can be painted or varnished prior to or after installation. Also, they could have been soaked in linseed oil to preserve them; this may also cause them to expand and thus fit tighter. However, be sure that the finish material is compatible with the previous materials put on the spokes.

Install the completed wheels on your car. Step back and see your Chevy smile! Then look in the mirror and see the smile on the craftsman, quality inspector and end user.

Caution - use appropriate safety equipment and procedures; remember your Chevy needs your hands and eyes to guide it!