

*S. N. Chapin,*  
*Tool Handle.*

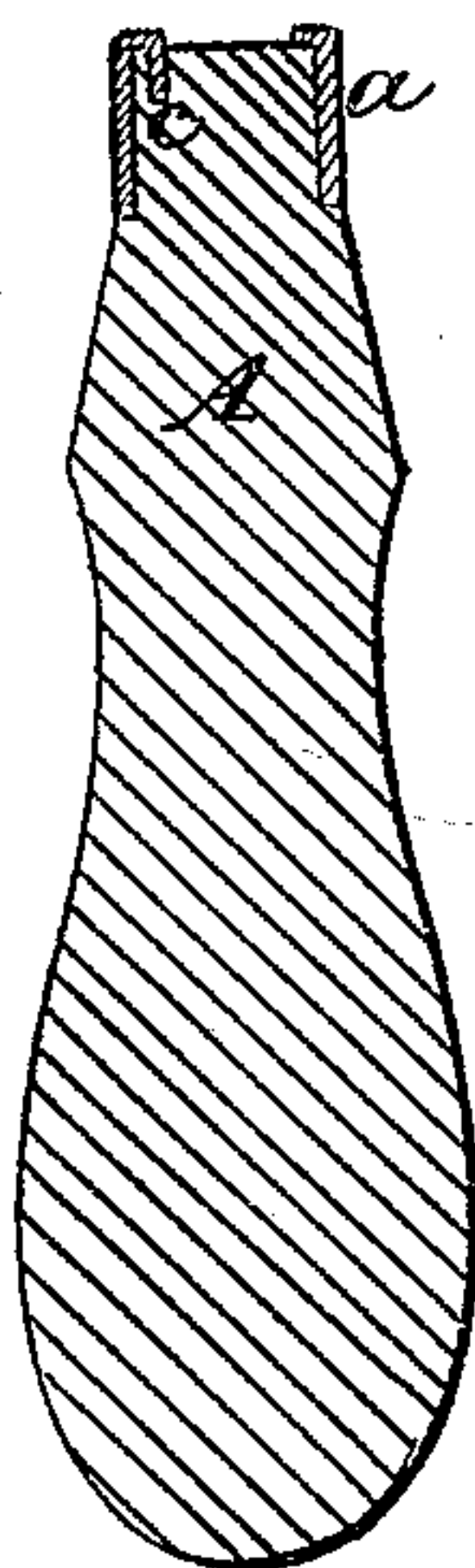
*No. 94,280.*

*Patented Aug 31. 1869.*

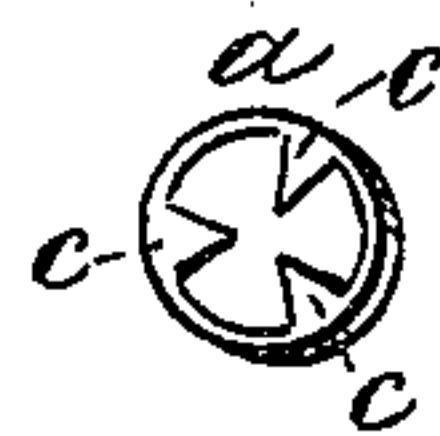
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses,

*W. E. Mitchell*  
*James Shepard*

Inventor,

*S. N. Chapin*

# United States Patent Office.

S. N. CHAPIN, OF NEW BRITAIN, CONNECTICUT.

Letters Patent No. 94,280, dated August 31, 1869.

## IMPROVEMENT IN FERRULES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that, I, S. N. CHAPIN, of New Britain, in the county of Hartford, and State of Connecticut, have invented new and useful Improvements in Ferrules; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an end view of my invention.

Figure 2 is a longitudinal section of the same.

Figure 3 is an end view of the same, in an uncompleted state.

Similar letters of reference indicate like parts.

My invention relates to that class of ferrules which are struck up, or swaged from a flat piece of metal, so as to leave a solid end, which end is sometimes wholly removed, and sometimes only a small aperture, sufficient to admit the shank of the tool, is made in the solid end of the ferrule.

My invention consists in the use or employment of points, formed on or in the solid end of said ferrule, which points are bent inward, and parallel to the sides of the ferrule, so as to enter the end of the wooden handle as the same is driven into the ferrule.

After the ferrule *a* is formed, in the usual manner, a portion of the solid end is removed, so as to leave the remaining portion of the metal in form of any desired number of points, *c*, as shown in fig. 3. The points *c* are then turned or bent inward, so as to stand

parallel, or nearly so, to the sides of the ferrule *a*, with a small space between the sides and the points, as shown in fig. 2.

As the handle *A* is driven into the ferrule *a*, the points *c* enter the end of the handle *A*, and act as wedges to swell the wood, and cause the same to fill the ferrule *a*, and hold it upon the handle. In case the wood of the handle shrinks, it will draw the points inward, and continually press upon them, so that the friction of the points in the handle will secure the ferrule in place.

Ordinary ferrules often become loose, and fall from place while being transported, or before the consumer is ready to insert the shank of a tool in the handle.

By my invention, I produce a ferrule that can be secured upon the handle as cheaply as the ordinary ferrule, and in which there is no danger of accidental removing of the same.

What I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a ferrule, *a*, when provided with one or more points *c*, bent inward, so as to enter the end of the handle *A*, substantially as and for the purpose set forth.

S. N. CHAPIN.

Witnesses:

C. E. MITCHELL,  
JAMES SHEPARD.