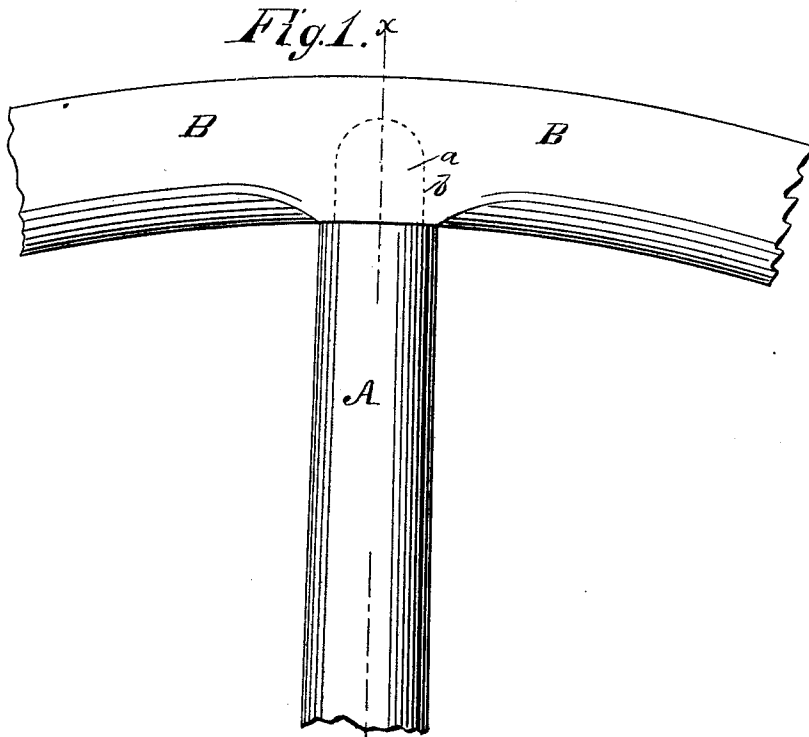


P. WINEMAN.

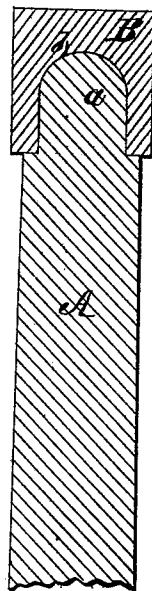
SPOKE-SOCKET.

No. 176,391.

Patented April 18, 1876.



*Fig. 2.*  $\times$



Witnesses  
*L. Van Renswick.*  
*H. L. Stuart*

Inventor:  
*Barker Wineman*  
*A. McCallum*  
*Copy*

# UNITED STATES PATENT OFFICE.

PARKER WINEMAN, OF ROCK ISLAND, ILLINOIS.

## IMPROVEMENT IN SPOKE-SOCKETS.

Specification forming part of Letters Patent No. **176,391**, dated April 18, 1876; application filed March 30, 1876.

### *To all whom it may concern:*

Be it known that I, PARKER WINEMAN, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Wheel Fellies and Spokes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to wooden wheel spokes and fellies, and consists in a new and improved joint between the spoke and the felly, whereby the latter is materially strengthened without weakening the spoke, all as herein-after more fully set forth.

In the accompanying drawings, Figure 1 is a view of a portion of a felly with a spoke secured thereto. Fig. 2 is a sectional view, showing my invention.

Referring to the parts by letters, A represents the spoke, the end of which is formed into a circular or rounded tenon, *a*. B represents the felly, which is cut with a circular or rounded mortise, *b*, to receive the correspondingly-shaped tenon *a* of the spoke A.

From the peculiar form given to the tenon and mortise, it will be seen that I obtain a bearing-surface on all sides, and do not weaken the felly by cutting a hole through it.

It will also be seen that with a joint of this description a comparatively small portion of the body of the felly is cut away, and therefore it is rendered so much the stronger, while the tenon on the spoke, by being rounded on its end, is not weakened in any way, if anything, it is strengthened, the pressure of the felly being on all sides instead of on the extremity and shoulder only, as heretofore.

Spokes and fellies so united require no metal sockets or screws, and the parts being all composed of wood they will expand and contract equally through the varying influence of the weather, without injury to each other.

I am aware that spokes and fellies having straight bearing-surfaces on the ends of the tenons and shoulders have been before known and used.

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

The spoke A having the rounded tenon *a*, and felly B having mortise *b*, constructed substantially as described, the tenon filling the mortise as and for the purpose specified.

In testimony that I claim the foregoing as my own, I affix my signature in the presence of two witnesses.

PARKER WINEMAN.

Witnesses:

WILLIAM H. GIST,  
JAMES J. PARKS.