

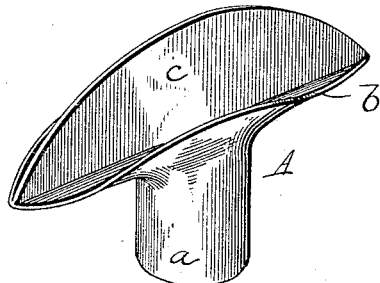
(No Model.)

F. W. STARR.  
SPOKE SOCKET.

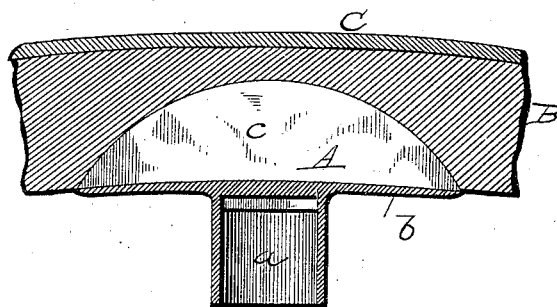
No. 305,978.

Patented Sept. 30, 1884.

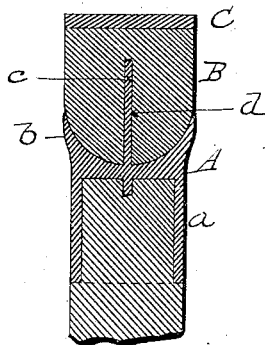
*Fig. 1*



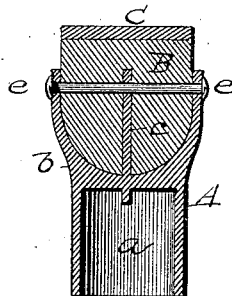
*Fig. 2*



*Fig. 3*



*Fig. 4*



WITNESSES.  
*Frank L. Curran*  
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INVENTOR  
*Ferdinand W. Starr*  
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Attorneys.

# UNITED STATES PATENT OFFICE.

FERDINAND W. STARR, OF SPRINGFIELD, OHIO, ASSIGNOR OF ONE-HALF  
TO THOMAS WALL, OF SAME PLACE.

## SPOKE-SOCKET.

SPECIFICATION forming part of Letters Patent No. 305,978, dated September 30, 1884.

Application filed July 17, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND W. STARR, of Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Spoke - Sockets, of which the following is a specification.

My invention consists in a spoke-socket iron in which are combined a felly-plate, a socket for the spoke, and a thin segmental web or plate adapted to fit a longitudinal seat formed in the felly by means of a circular saw or revolving cutter.

In the annexed drawings, Figure 1 is a perspective view of my improved device; Fig. 2, a longitudinal section, and Figs. 3 and 4 transverse sections through the same in position in the felly.

Prior to this invention spoke-socket irons have been made in various forms, and in one instance it was proposed to provide the same with a flat web, which, by reason of its being thin, should occupy a narrow seat in the felly, and thus avoid cutting or severing the fibers of the wood, as had previously been done by other spoke-socket irons, which were almost universally made with a thick stud or pin to enter the bored hole or mortise in the felly. My spoke-socket iron resembles this in having a thin web, but differs therefrom in that the web is of segmental form instead of having a straight upper face. The reason for this change is that by it I am enabled to secure a web which shall completely and accurately fill a mortise or seat formed for it in the felly by a rotary saw or other revolving cutter, which, being made of given diameter and gaged to enter only to a given depth into the felly, will produce always a seat or mortise of the exact size required. Thus I secure a perfect fit of the web in the mortise, and produce the mor-

tise with the greatest ease, certainty, and rapidity, thereby cheapening and facilitating as well as improving the construction of the wheel.

Referring again to the drawings, A indicates the spoke-socket iron complete; B, the felly; and C, the tire of a wheel, the socket-iron consisting of a ferrule or socket, *a*, felly-plate *b*, and segmental web *c*, as shown. The felly B is provided with a segmental mortise or saw-kerf, *d*, just large enough to receive the web *c*, which touches the walls thereof at all points and completely fills the mortise.

In order that the socket may be securely held in place, a bolt, *e*, is passed transversely through the felly, the side plates, and the web *c*. It is not necessary that all the sockets should be bolted in place, four or five being found sufficient.

While disclaiming the broad idea of forming the socket-iron with a thin flat web,

I claim as my invention—

1. A spoke-socket iron consisting of ferrule or socket *a*, felly B, and flat segmental web *c*, as and for the purpose set forth.

2. In combination with felly B, having kerf or mortise *d*, of segmental form, socket-iron A, having segmental web *c*, extending into and completely filling said mortise, substantially as described and shown.

3. In combination with felly B, having kerf or mortise *d*, of segmental form, socket-iron A, having segmental web *c*, extending into and completely filling said mortise, and bolt *e*, extending transversely through the same, substantially as described and shown.

FERDINAND W. STARR.

Witnesses:

GEO. GOUVER,  
CHASE STEWART.