(No Model.) 2 Sheets—Sheet 1.

J. T. GORMLY.

SPOKE SOCKET.

No. 385,412. Patented July 3, 1888.

Fig. 1.

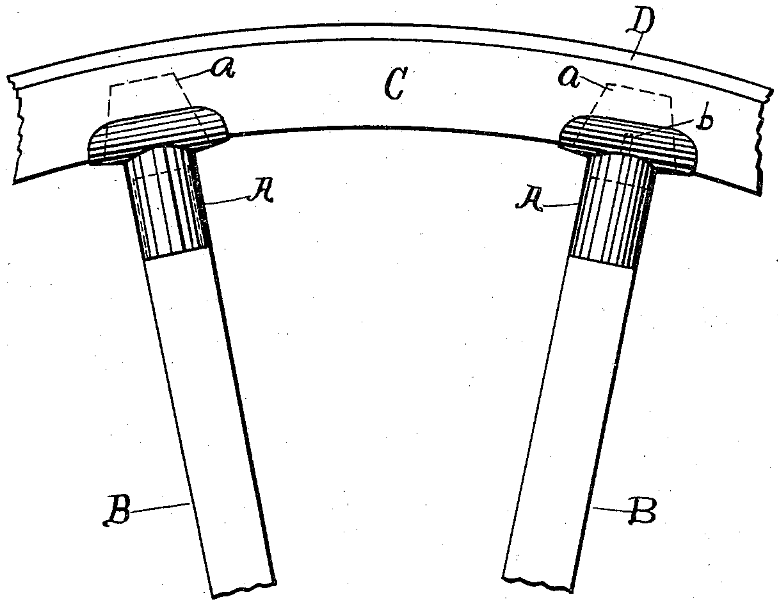


Fig. 2.

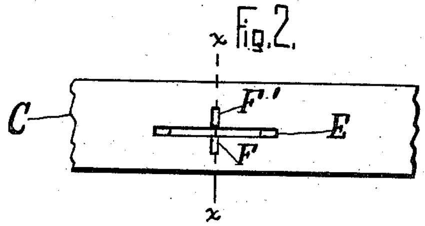


Fig. 3.

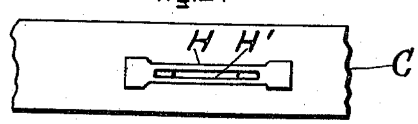
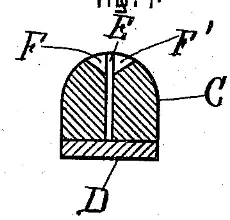


Fig. 4.



Witnesses,

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A. Davenport.

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atty.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. T. GORMLY.

SPOKE SOCKET.

No. 385,412. Patented July 3, 1888.

Fig. 5.

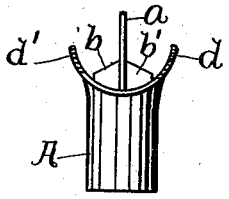


Fig. 6.

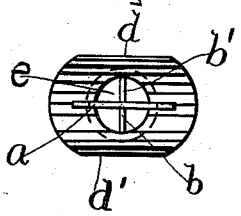


Fig. 7.

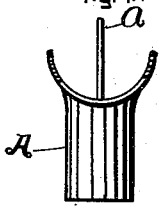


Fig. 8.

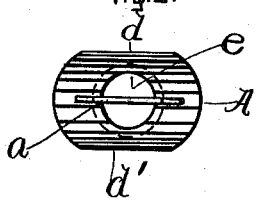


Fig. 9.

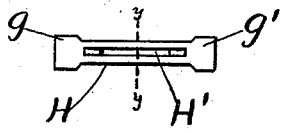


Fig. 10.

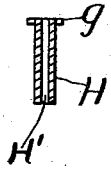
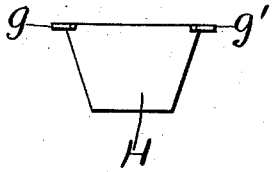


Fig. 11.



Witnesses,
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N. Davenport.

Inventor.
John T. Gormly.
by Geo. H. Strong.
atty.

UNITED STATES PATENT OFFICE.

JOHN T. GORMLY, OF TROY, NEW YORK.

SPOKE-SOCKET.

SPECIFICATION forming part of Letters Patent No. 385,412, dated July 3, 1888.

Application filed October 13, 1887. Serial No. 252,225. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. GORMLY, a citizen of the city of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Spoke-Sockets; and I do hereby declare that the following is a full, clear, and exact description of the invention, that 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 the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in spoke-sockets; and it consists of an integral casting having on one end a sleeve adapted to receive one end of a wheel-spoke and on the other end a tenon adapted to enter a suitable mortise in the wheel rim or felly, and such novel constructions and combinations of parts as hereinafter described, and pointed out in the claims.

Figure 1 of the drawings is a side elevation of a portion of a wagon-wheel, showing two spokes attached to the rim by my improved sockets. Fig. 2 is a plan view of a portion of the rim or felly, showing a tenon-mortise in the wood. Fig. 3 is a similar view showing a tenon-mortise in a metallic casting inserted in the rim. Fig. 4 is a cross-section of the rim, taken at the broken line *x x* in Fig. 2. Fig. 5 is a side elevation of the spoke-socket detached. Fig. 6 is a top plan view of same. Fig. 7 is a view similar to that shown in Fig. 5 of a modified form of the socket. Fig. 8 is a top plan view of the socket shown in Fig. 7. Fig. 9 is a top plan view of the metallic casting provided with a tenon-mortise. Fig. 10 is a cross-section of the same, taken at the broken line *x x* in Fig. 9. Fig. 11 is a side elevation of the casting shown in Fig. 9.

In United States Patent No. 340,571, issued to me April 27, 1886, is shown and described a spoke-socket made of an integral casting having a sleeve adapted to receive one end of a spoke and flanges adapted to inclose the rim and be bent over the same and battered down under the tire of the wheel, the end of the spoke being provided with a tenon integral therewith passing through the socket into a round mortise in the rim.

My improved socket which forms the subject of this application has on one end the sleeve adapted to receive the end of the spoke, but is provided on the other end with a metallic blade-tenon integral therewith, which takes the place of the tenon heretofore formed on the end of the spoke, and I am able to dispense with the inclosing-flanges adapted to be battered down beneath the tire.

As shown in the drawings, A is the spoke-receiving sleeve. *d d'* are flanges forming a seat for the rim C, and *a* and *b b'* are tenons projecting outward from the rim-seat and adapted to enter and fit the mortises E and F F' in the rim shown in Fig. 2. D is the wheel-tire.

By means of my improved device the spokes are easily and quickly secured to the rim, it being necessary only to insert the ends of the spokes in the sleeves and the tenons of the sockets in the mortises in the rim. The position of the inserted spokes and tenons, as well as side view of tenon *a*, is shown by dotted lines in Fig. 1.

As heretofore constructed, round holes or mortises have been formed in the rim to receive a corresponding tenon on the spokes, which were required to be of comparatively large size to secure the required strength in the tenon, thereby materially weakening the rim by making a correspondingly large transverse cut through the same.

By having the tenon made thin, similar to a metallic blade, and secured to or forming a part of the spoke-socket, I am able to make use of a very narrow mortise extending longitudinally of the rim, thereby making only a very small transverse cut through the rim. It is not necessary that the tenon should pass entirely through the rim.

The transverse mortise-slot F F extends only a short distance into the rim to receive the short transverse tenon *b b'*. This transverse tenon and mortise may be dispensed with when desired, its object being simply to prevent any vibration of the tenon *a* longitudinally of its mortise in case of wear or misfit.

My improved device can be used in repairing old wheels, and in cases where the old rim

is considerably worn about the spoke-mortise, a metallic case, H, having a pocket or mortise H′, adapted to receive and fit the tenon *a*, and with flanges *g g′*, may be inserted in the rim in the desired position to receive and secure the spoke.

In the use of my improved spoke-socket it is not necessary to remove the wheel-tire to remove or insert a spoke, as the spoke can be sprung into place as easily as when no spoke-socket is employed—a matter of considerable importance in replacing a broken spoke.

When desired, the rim-seat flanges *d d′* may be dispensed with and the tenons *a b b′* brazed onto or cast integral with a straight cylindrical sleeve, as shown by circular dotted line in Figs. 6 and 8. The opening *e* may extend entirely through the sleeve or be closed at one end to form a rim-seat.

The socket may be cast in one piece or be formed partly or wholly of sheet metal.

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

1. As an improved article of manufacture, a metallic spoke-socket consisting of an integral casting having on one end a spoke-receiving sleeve and on the other end a flanged rim-seat and longitudinal and transverse rim-tenons projecting about centrally from the seat, substantially as described, and for the purposes set forth.

2. The combination, with a wheel-rim, of a metallic tenon mortise-case inserted therein and a metallic spoke-socket having on one end a rim-seat and tenon and on the other end a spoke-sleeve, substantially as described.

In testimony whereof I have hereunto set my hand this 10th day of October, 1887.

JOHN T. GORMLY.

Witnesses:

GEO. A. MOSHER,

CHAS. L. ALDEN.