

O. J. BALDWIN.
Vehicle-Wheel.

No. 223,307.

Patented Jan. 6, 1880.

Fig. 2.

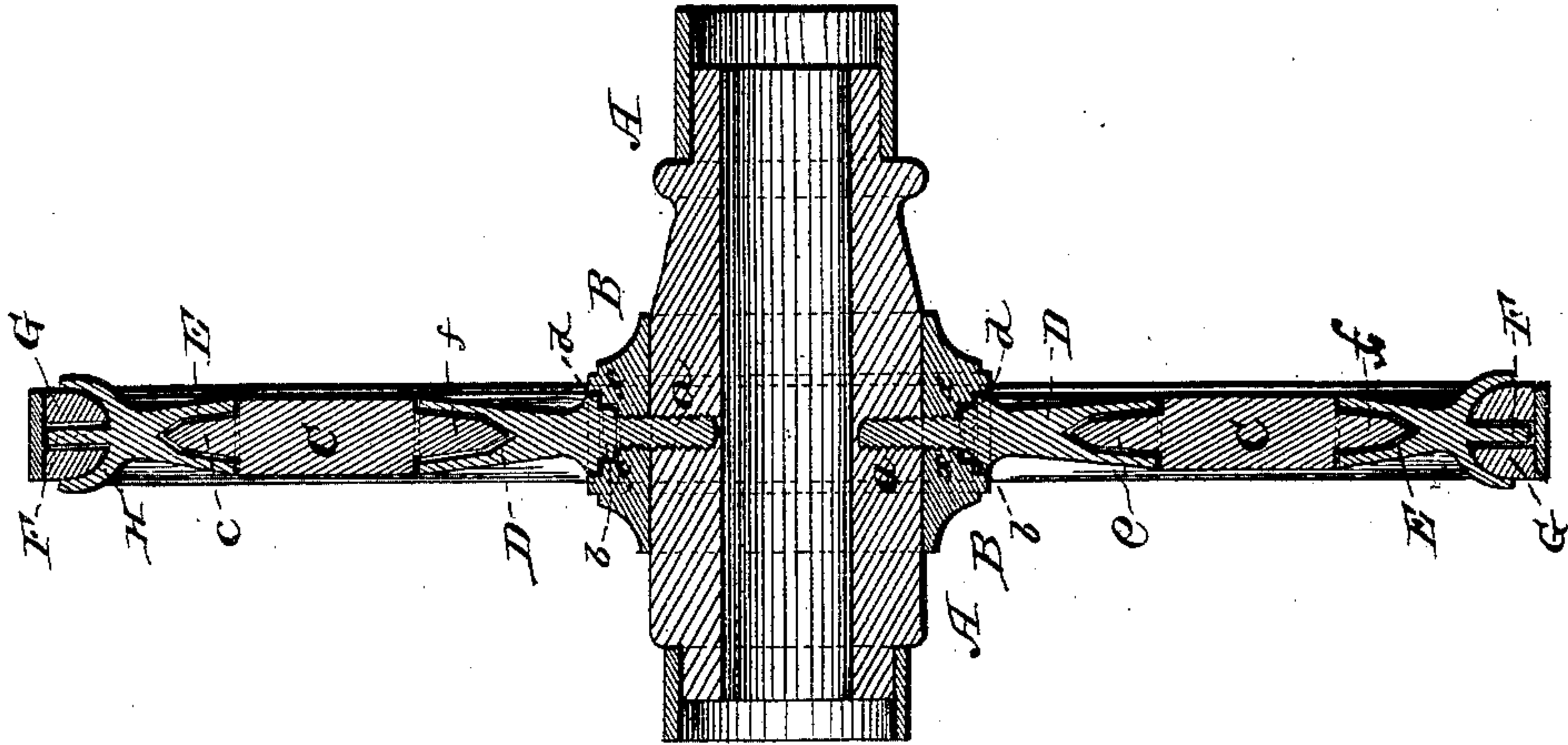
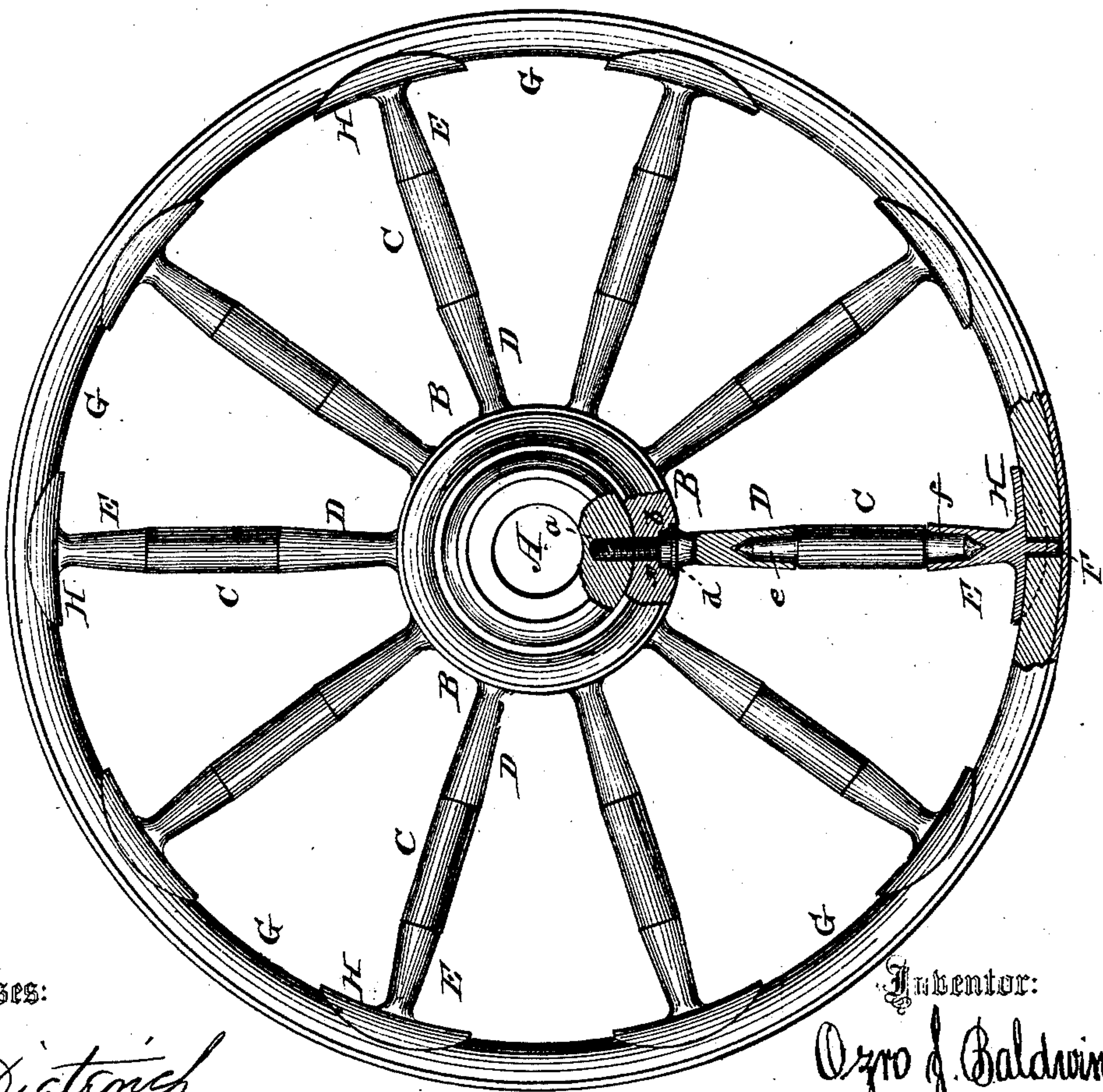


Fig. 1.



Witnesses:

P. C. Dietrich
C. H. Watson

Inventor:

O. J. Baldwin

Per C. H. Watson & Co. Attorneys.

UNITED STATES PATENT OFFICE.

OZRO J. BALDWIN, OF ROUSEVILLE, ASSIGNOR TO HIMSELF AND P. E. APPLEBY, OF BRADFORD, PENNSYLVANIA.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 223,307, dated January 6, 1880.

Application filed July 3, 1879.

To all whom it may concern:

Be it known that I, OZRO J. BALDWIN, of Rouseville, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Wheels for Vehicles; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to vehicle-wheels; and it consists in the construction of the hub and spokes of the wheel, as will be hereinafter more fully set forth, and pointed out in the claims.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved vehicle-wheel, and Fig. 2 is a central section of the same.

A represents a wooden hub of any suitable dimensions, surrounded in the center by a solid metallic band or sleeve, B.

The spokes of the wheel are composed of three pieces each—a central wooden piece, C, a metallic socket, D, at the inner end, and a metallic socket, E, at the outer end.

The metallic socket D is provided with a screw-threaded shank, *a*, which is screwed through the metallic band B and into the wooden hub A, and may be of such length that its inner end will come clear to the inner circumference of said wooden hub, or to fall short thereof more or less, as desired.

At the base of the shank *a* is left a portion, *b*, unthreaded, and of larger diameter than the threaded portion; and there is also formed a shoulder, *d*, as shown.

When the socket D is screwed into place the part *b* fits in a recess in the band B against a shoulder, *x*, therein, and the shoulder *d* bears against the outside of the band, or in a countersink thereon.

It will thus be seen that all strain by jarring, bumping, &c., is entirely removed from the screw-threads, and will come upon the metallic band by means of the shoulders *b* and *d*, thus preventing any injury to the screw-threads. If, however, by some means, said shoulders should not be in proper contact, any injury to the screw-threads is prevented

by the construction of the hub, it being made of a wooden center or hub proper and a solid metallic band encircling the same.

It will readily be seen that if the hub were made entirely of metal the strain of bumping, &c., would injure the threads; but by means of the wooden hub a certain degree of elasticity or yielding is imparted to it, which protects the threads, wood not being as hard and unyielding as metal, while at the same time I obtain all the strength of a metallic hub by means of the metallic band encircling the hub.

The socket D is formed with a conically-shaped opening at its outer end, to receive a tenon, *e*, formed on the inner end of the wood part C of the spoke. A similar tenon, *f*, is formed on the other end of said part C, which latter tenon is inserted in the metallic socket E. This socket is formed with a shank or tenon, F, to be passed either entirely or partially through the felly G, and at the base of this tenon F the socket E is provided with a concave plate, H, fitting the inside of the felly.

By the construction of the spokes of three pieces—the wooden center C and the metallic end sockets D and E—if any spoke should break, there will be but very little trouble in putting in a new spoke, while, when the spokes are put directly into the hub, it often happens that the tenons are broken off in the hub, causing great trouble and difficulty in removing the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a wooden hub provided with a central metallic band, of metallic sockets having screw-threaded shank at one end, a conically-recessed opening in the opposite end, and an intermediate shoulder having a firm bearing on the metallic band, substantially as herein set forth.

2. The combination of the wooden hub A, solid metallic band B, with circular recesses, forming shoulders *x*, and the metallic socket D, formed with the threaded shank *a* and shoulders *b* and *d*, substantially as and for the purposes herein set forth.

OZRO J. BALDWIN.

Witnesses:

H. B. BEATTY,
J. S. GIBSON.