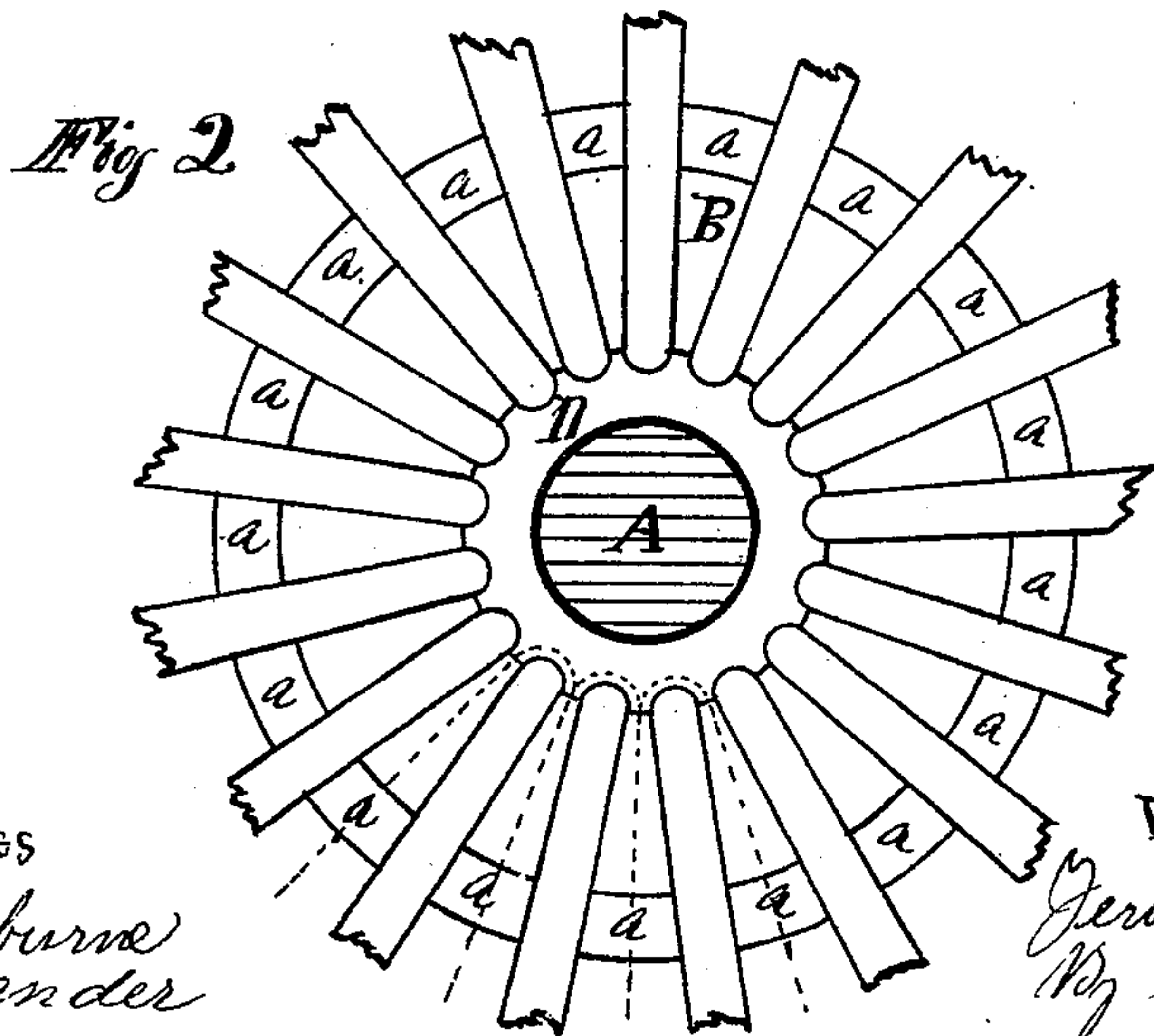
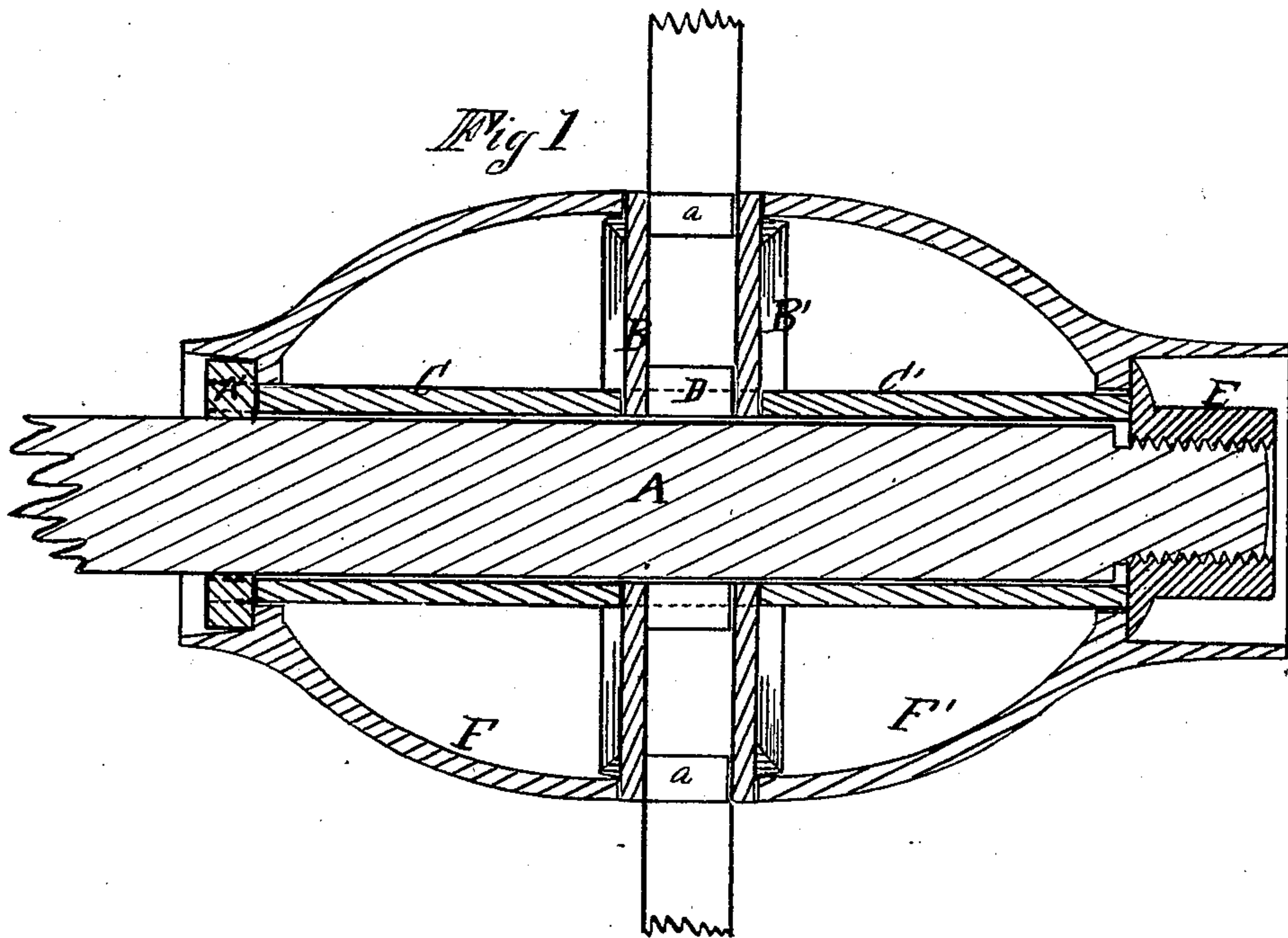


J. B. WITHEY.
Wheels for Vehicles.

No. 142,831.

Patented September 16, 1873.



Witnesses
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UNITED STATES PATENT OFFICE.

JEROME B. WITHEY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. **142,831**, dated September 16, 1873; application filed April 15, 1873.

To all whom it may concern:

Be it known that I, JEROME B. WITHEY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Carriage-Hubs; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a central longitudinal section of a carriage-hub embodying my said improvement, and Fig. 2 is a cross-section of the same taken on line *xx* drawn across Fig. 1.

Similar letters of reference indicate like parts in both figures of the drawing.

My invention relates to that class of carriage-hubs which are constructed of metal, and has for its object to render the same light, strong, and durable; and to that end the improvement consists in two separate disks provided with flanges, between which the spokes are secured by means of a hollow shell and sleeve arranged on opposite sides of the disks, and upon the axle, the said axle having a collar bearing against the inner end of the shell and sleeve, and a nut bearing against the outer end of the outer shell and sleeve, whereby the respective parts are firmly compressed together, holding the spokes in proper position. The present invention is designed more especially to be used upon a rotating axle, but may be used in wheels revolving upon the axle, in which case a slight change is made, as will be hereinafter described.

In the drawing, A represents the axle, and A' a collar, which is permanently secured thereon. B and B' are the disks, which are provided at the center with an aperture, through which the axle passes. These disks, one or both of them,

are provided with a series of flanges or projections, *a*, arranged near their periphery, and which extend transversely across the spokes, as shown in Fig. 1. The central portions of the said disks are provided with a flange, D, within which the inner ends of the spokes are secured, as shown in Fig. 2. C and C' are sleeves, which are fitted upon the axle, and so arranged as to bear against the outer sides of the disks, sleeve C bearing against collar A', and sleeve C' bearing against nut E, which is secured upon the outer end of the axle. F and F' are hollow shells, the inner ends of which bear against the outer sides of the disks, and are loosely fitted at the outer end upon the sleeves, as shown in Fig. 1. The outer end of each shell is provided with a shoulder, one of which bears against the collar and the other against the nut. Thus, as the nut is tightened, the disks are compressed between the inner ends of the said shells and sleeves, thereby firmly securing the spokes.

It will be observed, by reference to the drawings, that by making sleeve C shorter than shell F the requisite dish may be given to the wheel by the tightening of the nut.

In constructing my improved hub, the cavity in the shell may be filled with wood, if desired.

Having thus described my invention, I claim—

The disks B B', having the projections *a* and flange D, arranged to receive the spokes, in combination with shells F F', sleeves C C', collar A', and nut E, the whole adapted to a revolving axle for vehicles, as specified.

The above specification of my invention signed by me this 15th day of October, 1872.

JEROME B. WITHEY.

Witnesses:

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