

A. Warner
Carriage Wheel Hub

No 61,900.

Patented Feb. 5. 1867.

Fig. 1.

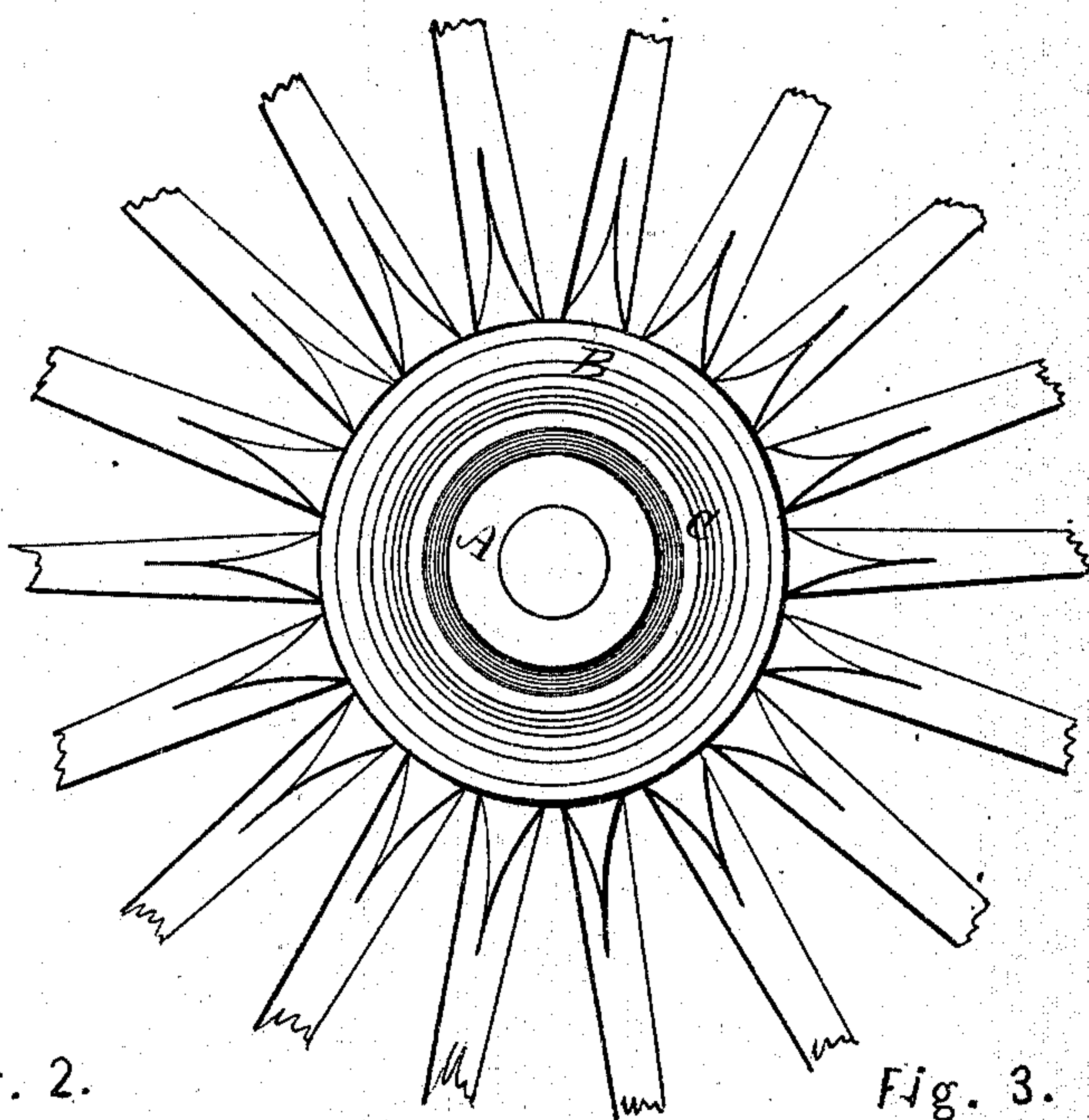


Fig. 2.

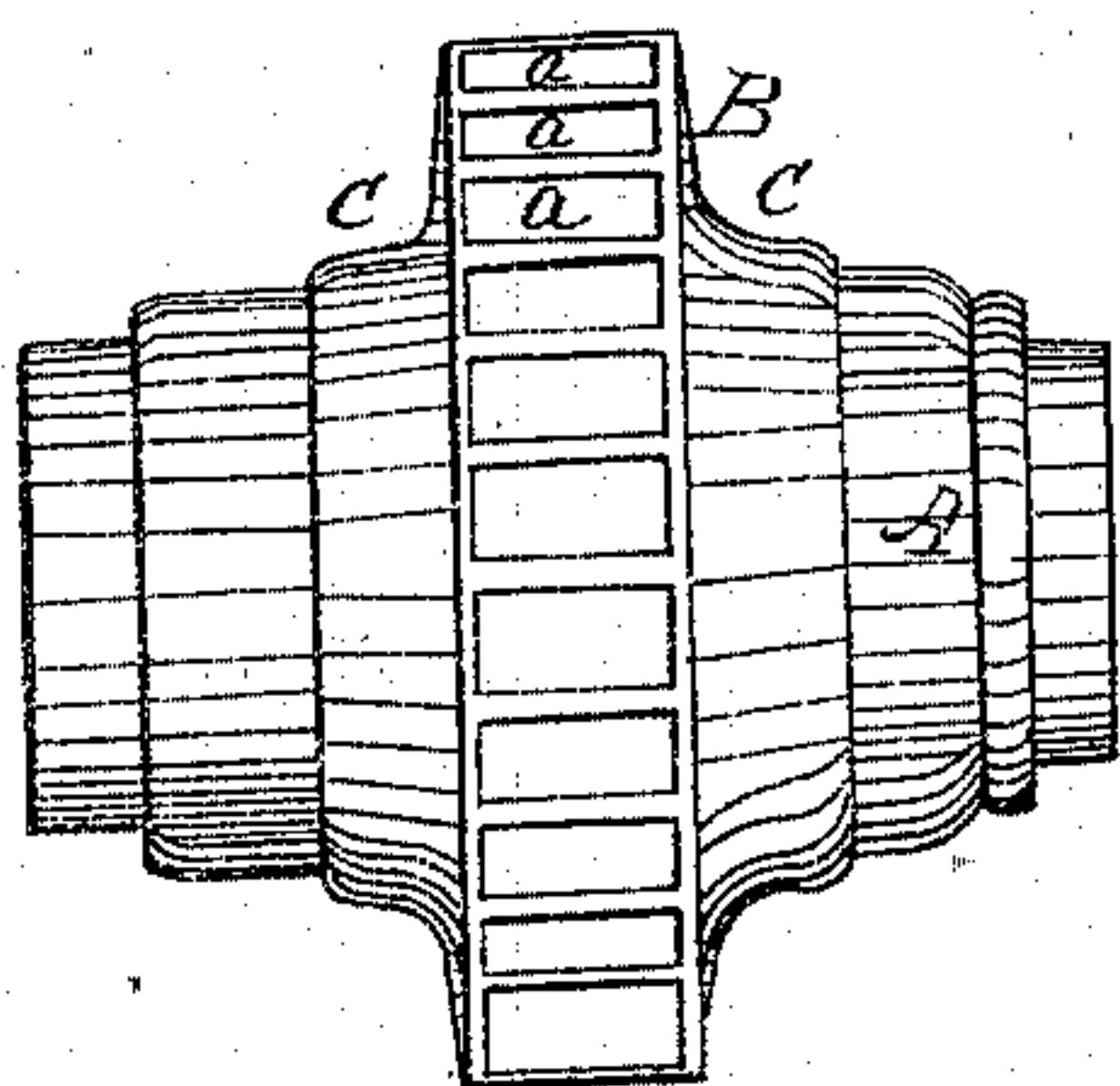


Fig. 3.

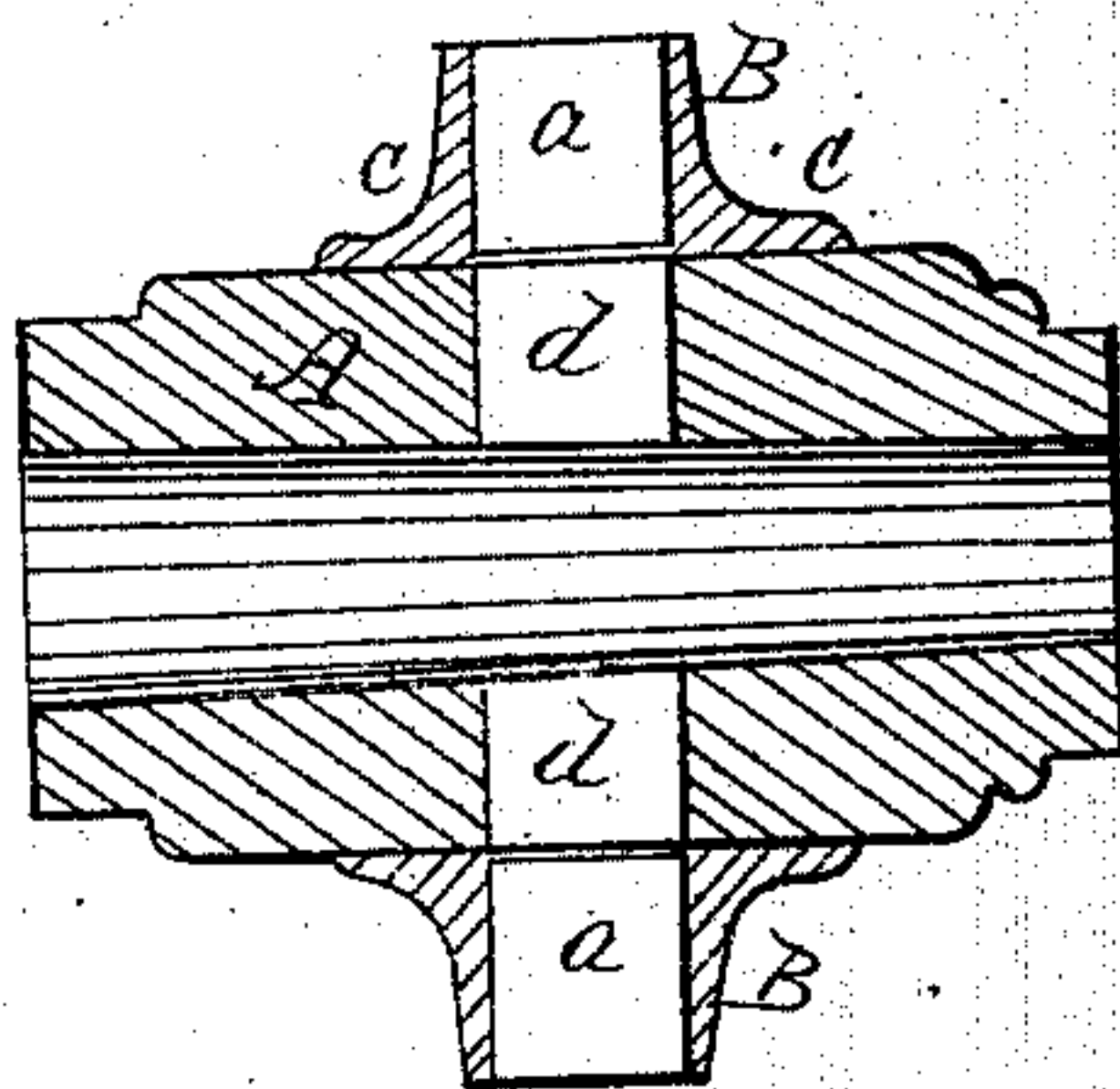
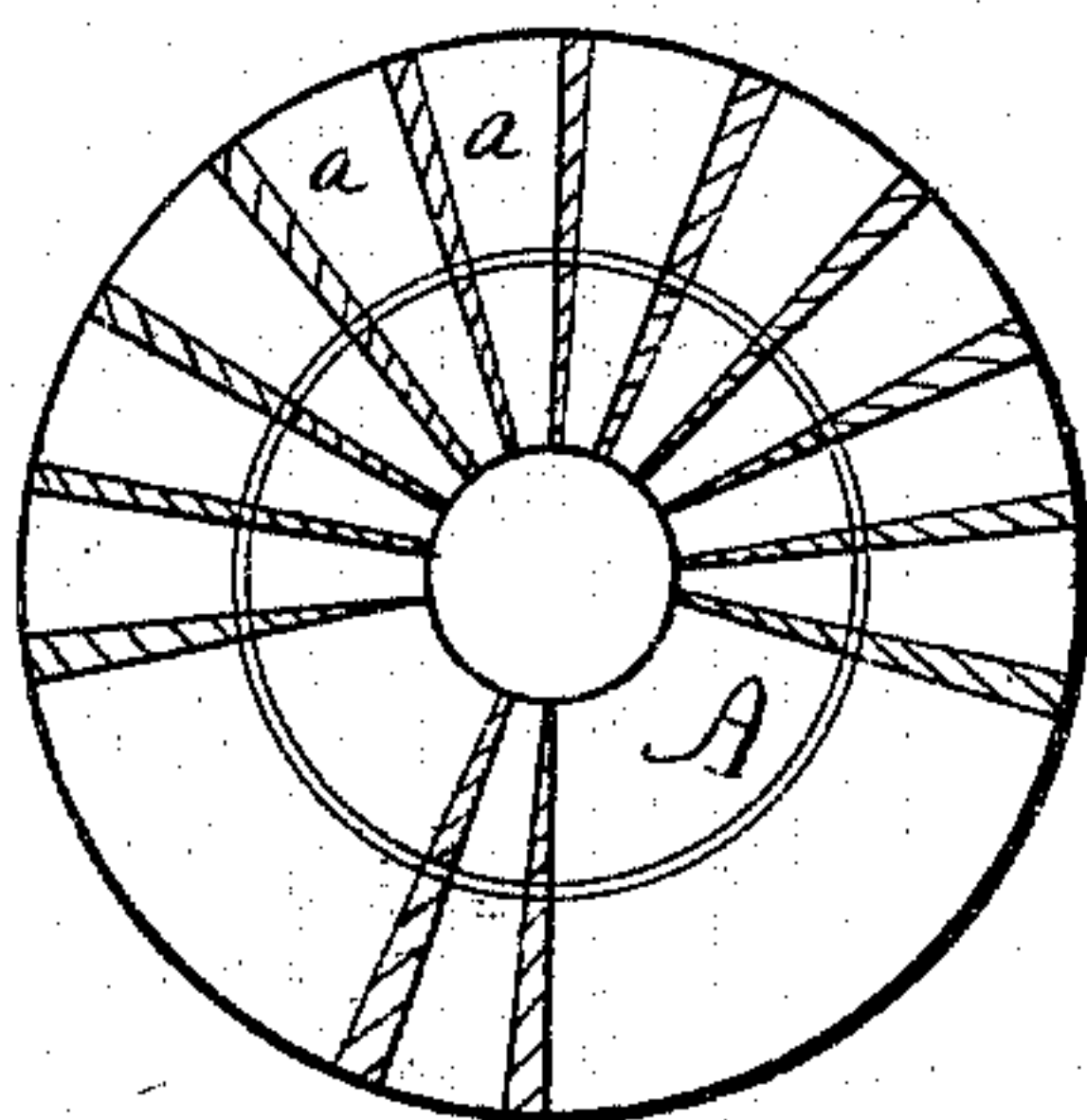


Fig. 4.



Inventor

ALMON WARNER

By his Attorney

John E. Cook

Witnesses

John W. Humphrey
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UNITED STATES PATENT OFFICE

ALMON WARNER, OF HAMDEN, CONNECTICUT.

IMPROVEMENT IN HUBS FOR CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 61,900, dated February 5, 1867.

To all whom it may concern :

Be it known that I, ALMON WARNER, of Hamden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Hubs for Carriage-Wheels; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of the hub of a wheel; Fig. 2, a side view; Fig. 3, a longitudinal central section, and in Fig. 4 a transverse central section.

This invention relates to an improvement in the hub, the object being to more perfectly secure the spokes into the hub; and consists in the construction of a ring or metal center, provided with mortises to receive the spokes, and formed with flanges to bear upon the surface of a wooden hub, which passes through the center of the metal ring.

Heretofore, flanges or plates have been arranged upon either side of the spokes; and the two plates bolted together through the spokes. By my invention this necessary bolting is entirely dispensed with.

To enable others skilled in the art to construct and use my improvement, I will proceed to describe the same, as illustrated in the accompanying drawings.

A is the wooden hub, into which the axle-box is fitted in the usual manner. B is a ring

of metal, in which are formed mortises *a*, to receive the lower ends of the spokes, and a corresponding mortise, *d*, is formed in the wood to receive the tenon of the spoke. The ring B is formed with flanges C C upon either side, to form a strong bearing upon the wooden hub.

The metal portion of the hub is driven onto the wood, as seen in Figs. 2 and 3, and the mortises made in the wood before or after, as preferred, the spokes being driven into the mortises bear on all sides upon metal, and thus are held in the firmest possible manner. The two plates of the ring cannot, by any possibility, be loosened the one from the other, as they may be when bolted together, and thus is produced the most perfect wheel possible.

If preferred, a portion of the webs which connect the two plates, and form the mortises, may be left out, as seen in the lower portion of Fig. 4; yet I prefer a web between each spoke.

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

The combination of the ring B, formed with its mortises *a* and flanges C C, with a wooden hub, A, substantially in the manner herein set forth.

ALMON WARNER.

Witnesses:

JOHN E. EARLE,
JOHN H. SHUMWAY.