

No. 773,534.

PATENTED NOV. 1, 1904.

F. M. ASHLEY.

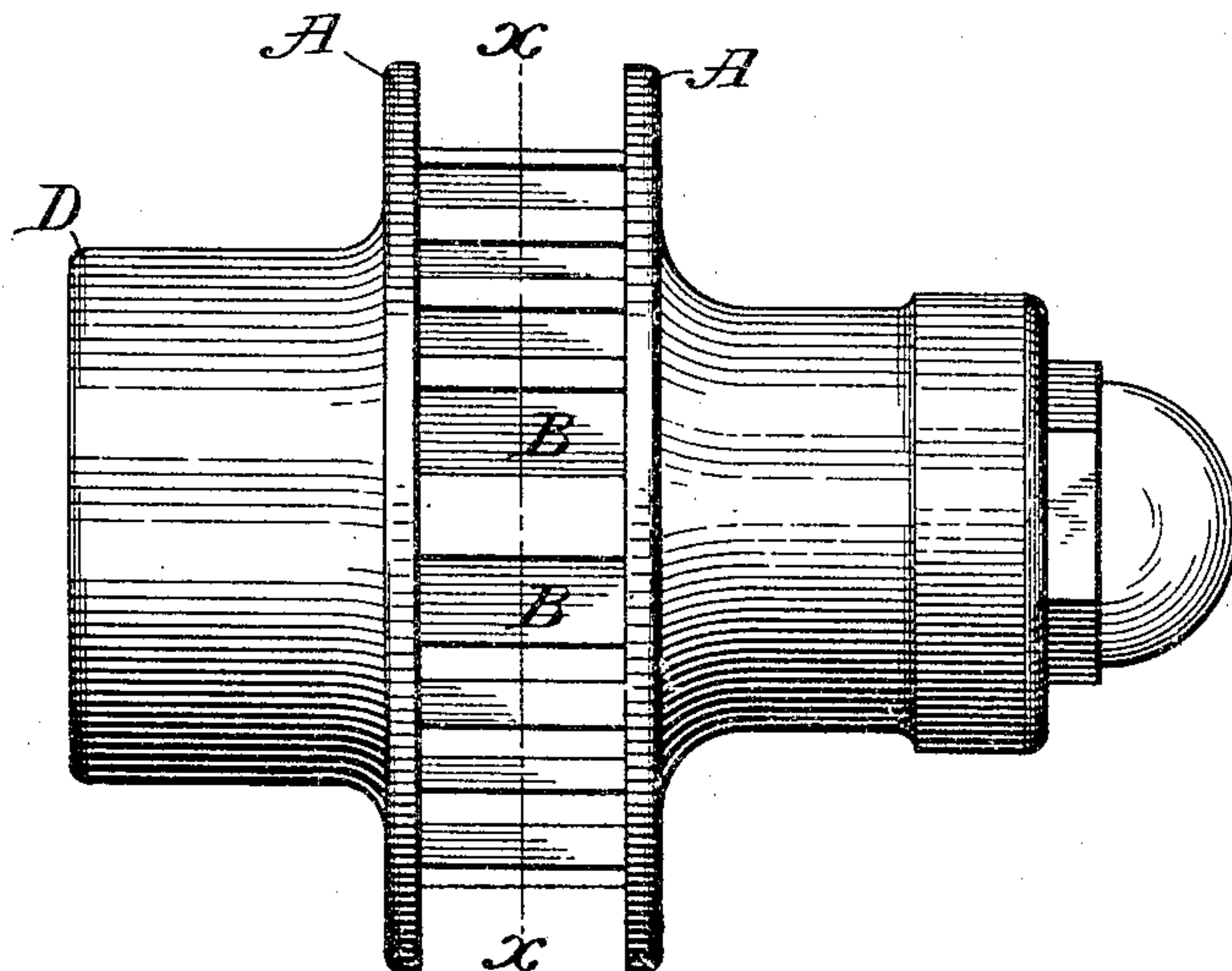
WHEEL HUB.

APPLICATION FILED APR. 1, 1903.

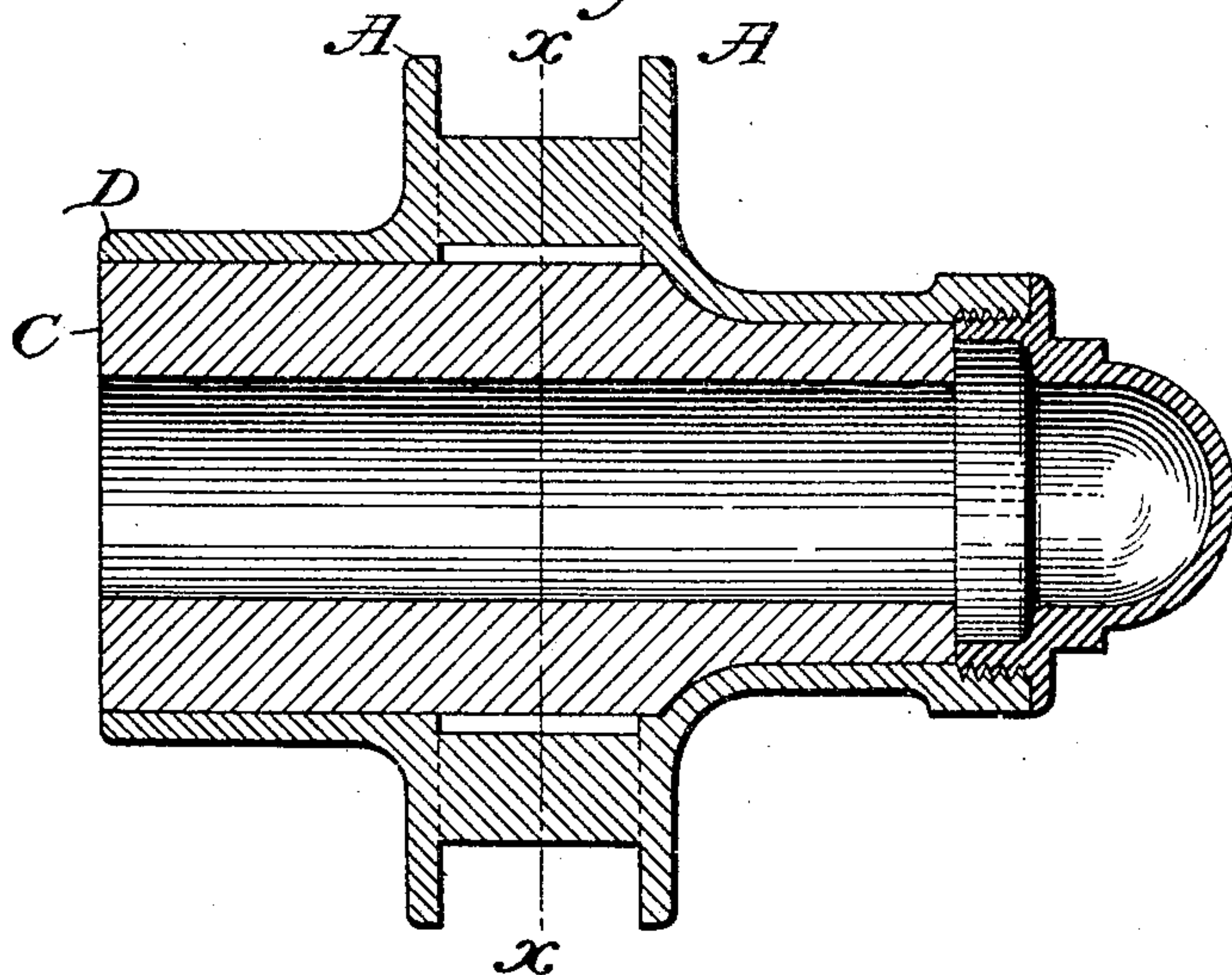
NO MODEL.

2 SHEETS—SHEET 1.

*Fig. 1*



*Fig. 2*



Witnesses  
Chas. Clagett  
M. Huggins

Inventor  
Frank M. Ashley

No. 773,534.

PATENTED NOV. 1, 1904.

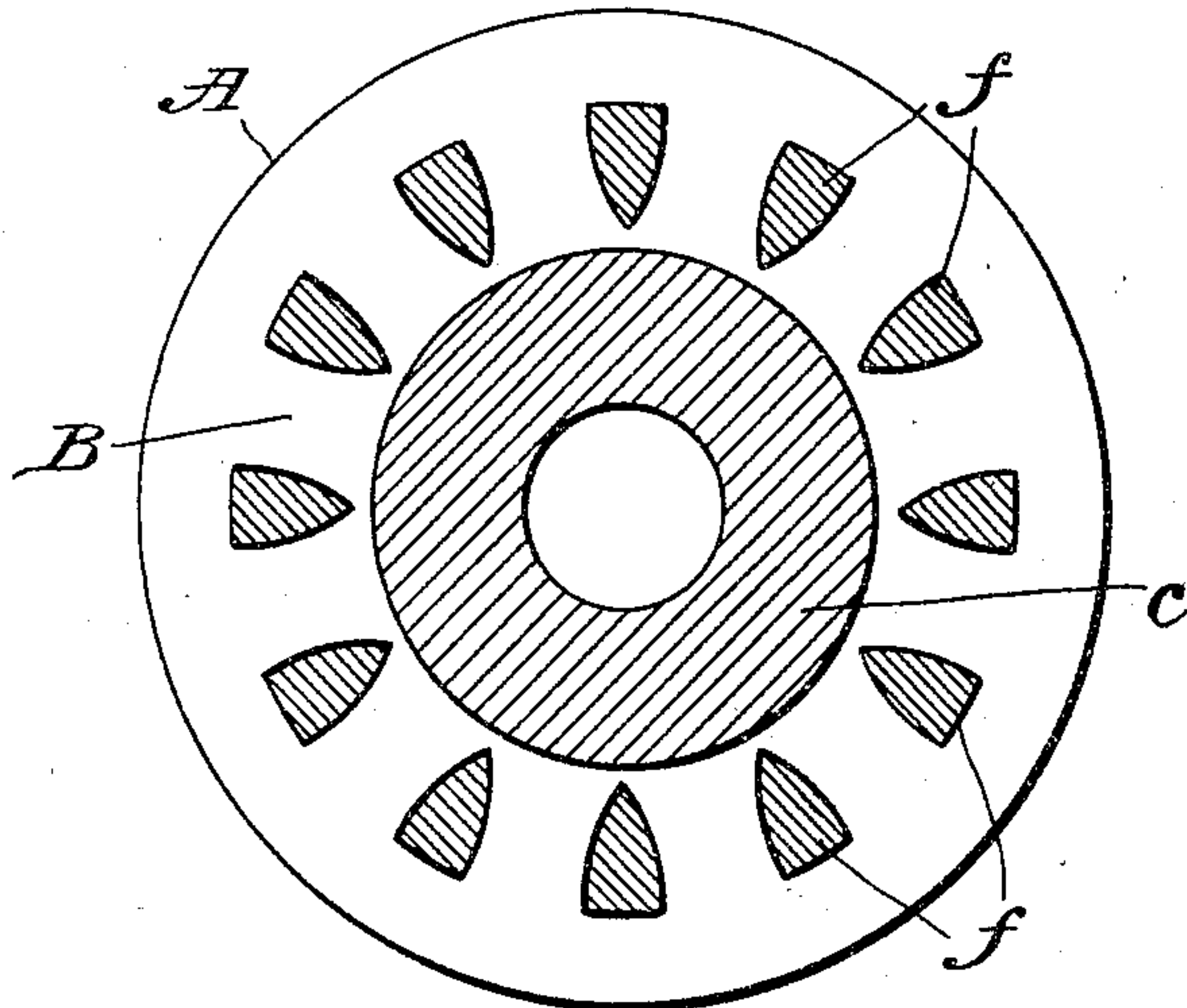
F. M. ASHLEY.  
WHEEL HUB.

APPLICATION FILED APR. 1, 1903.

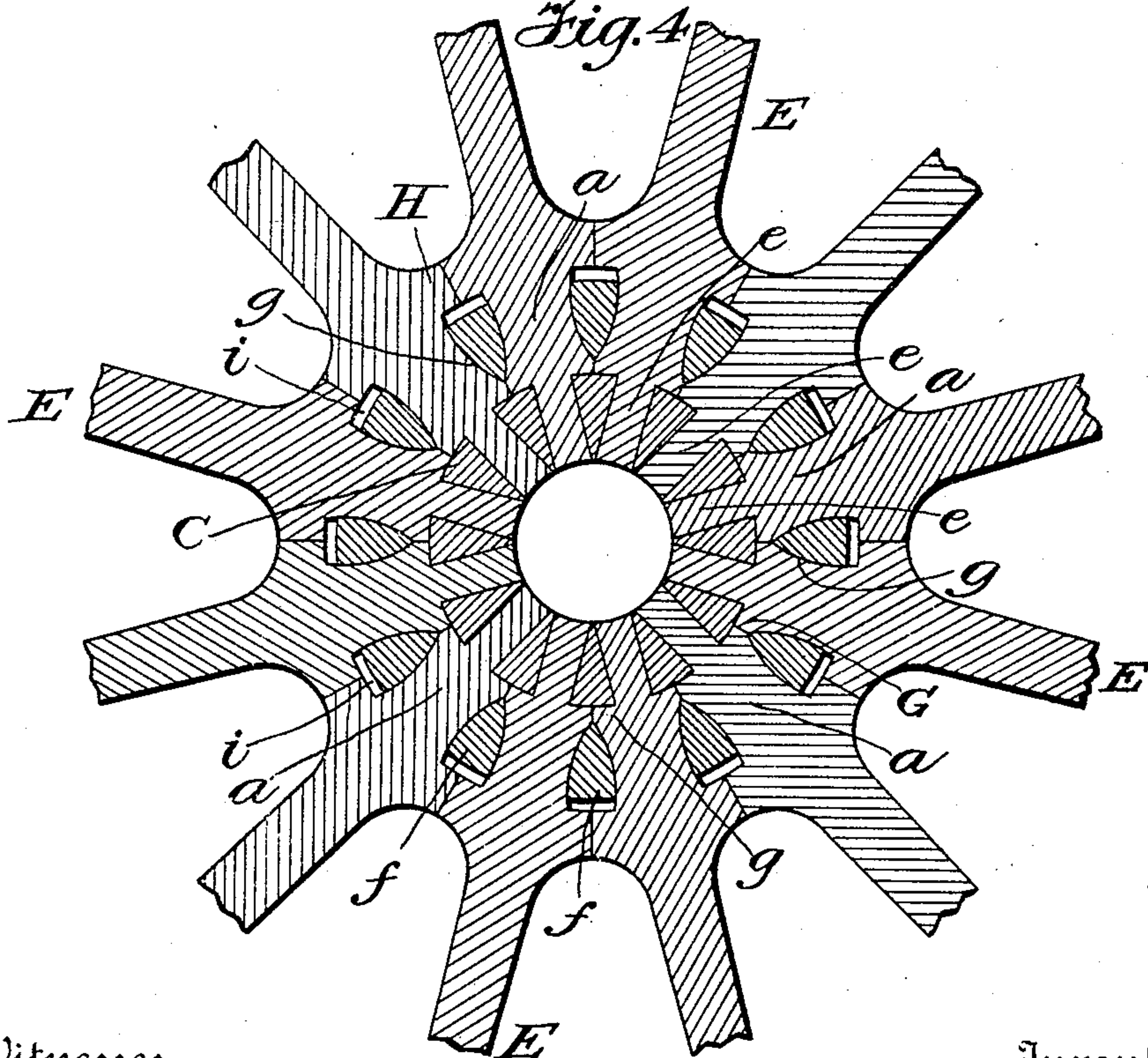
NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 3*



*Fig. 4*



Witnesses  
Chas. J. Clagett  
*M. J. Hughes*

Inventor  
*Frank M. Ashley*



# UNITED STATES PATENT OFFICE.

FRANK M. ASHLEY, OF NEW YORK, N. Y., ASSIGNOR TO EDWIN B. CADWELL, OF BROOKLYN, NEW YORK.

## WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 773,534, dated November 1, 1904.

Application filed April 1, 1903. Serial No. 150,579. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. ASHLEY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Wheel-Hubs, of which the following is a specification.

This invention relates to vehicle-wheels, and involves more particularly a novel combination of the spokes with the hub, whereby both the hub and the spoke engagement therewith will be of great strength and the spokes held in locked abutting relation.

The invention also comprehends a peculiar arrangement whereby the spokes are locked and mutually abut both within and exterior to the hub.

There are other important features and details connected with the invention which, besides those alluded to, are clearly explained in the subsequent extended description.

In the accompanying drawings, forming part of this specification, Figure 1 is an exterior view of a hub embodying certain features of my invention. Fig. 2 is a central longitudinal sectional view of the hub disclosed in Fig. 1. Fig. 3 is a transverse section of the hub represented in the preceding figures, the section being taken in the plane indicated by the broken line *x x*, Fig. 2. Fig. 4 is a view of the hub as represented in Fig. 3, with the addition of the spokes inserted and locked in position.

Similar reference characters designate corresponding parts throughout the figures of the drawings where they occur.

D refers to a metal sheathing or casing in a single piece, constituting the exterior of the hub and having annular flanges A A projecting from its central portion, sockets B B being formed between said flanges for the reception of the base portions *a* of the spokes. A wooden core C is forced into the sheathing D, and this core contains a series of radial mortises, in which the spoke-tenons *e e* bear. The metal segments spanning the space between the flanges A A form bridges, as indicated more particularly in Fig. 3 by *f f*, said bridges having rounded contractions *g* at their

inner sides for permitting the base portions *a* of the spokes E to expand within the bottoms of the sockets, as indicated in Fig. 4, to an extent that will lock the spokes in position and resulting in their base portions coming together at a point within said contractions, and thereby forming an inner ring G, presented by the continuously-abutting portions of said bases. It will be seen that the spokes are so shouldered as to also mutually abut in a plane exterior and immediately adjacent to the bridges *f*, said abutting shoulders constituting a second and outer ring H, encircling the hub and confined between the flanges A A thereof. It will be noted that the abutting portions forming the inner ring are correspondingly confined.

By reference to Fig. 4 the parts are so proportioned that clearance-spaces *i* are presented immediately at the inner sides of the abutment-rings H. The presence of these spaces insures the parts constituting the rings coming into proper abutting relation, and the said spaces additionally serve to relieve the bridges *f* of undue strain.

I do not desire to be understood as limiting myself to the particular features or arrangements of parts shown and disclosed, but reserve the right to all such modifications as may be fairly within the scope of my invention.

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

1. A metallic hub-sheathing integrally presenting annular flanges and intervening bridges conjointly forming radial spoke-sockets, said bridges having inner rounded portions terminating short of the bottoms of the sockets.

2. In a hub, the combination with a wooden core, of a sheathing integrally presenting annular flanges and intervening bridges conjointly forming radial spoke-sockets, and spokes within said sockets, and having inner laterally-enlarged abutting parts in locked engagement with the bridges.

3. In a hub, the combination with a wooden core, of a sheathing integrally presenting an-

nular flanges and intervening bridges conjointly forming radial spoke-sockets, said bridges having inner rounded portions terminating short of the bottoms of the socket  
5 and outer surface of the core, and spokes within said sockets and having inner laterally-abutting parts closely conforming to the inner rounded portions of the bridges and in locked engagement with the latter.

10 4. In a hub, the combination with a wooden core, of a sheathing integrally presenting annular flanges and intervening bridges conjointly forming spoke-sockets, and spokes

within said sockets and having outer and inner abutting parts, the outer parts forming a ring-abutment external to the bridges and the inner parts in locked engagement with the inner portions of the bridges.

Signed at New York, in the county of New York and State of New York, this 25th day of March, A. D. 1903.

FRANK M. ASHLEY.

Witnesses:

WILLIAM PAXTON,  
H. E. MAHER.