

J. B. STUART.

Hub.

Patented Feb 5, 1867.

No. 61,890.

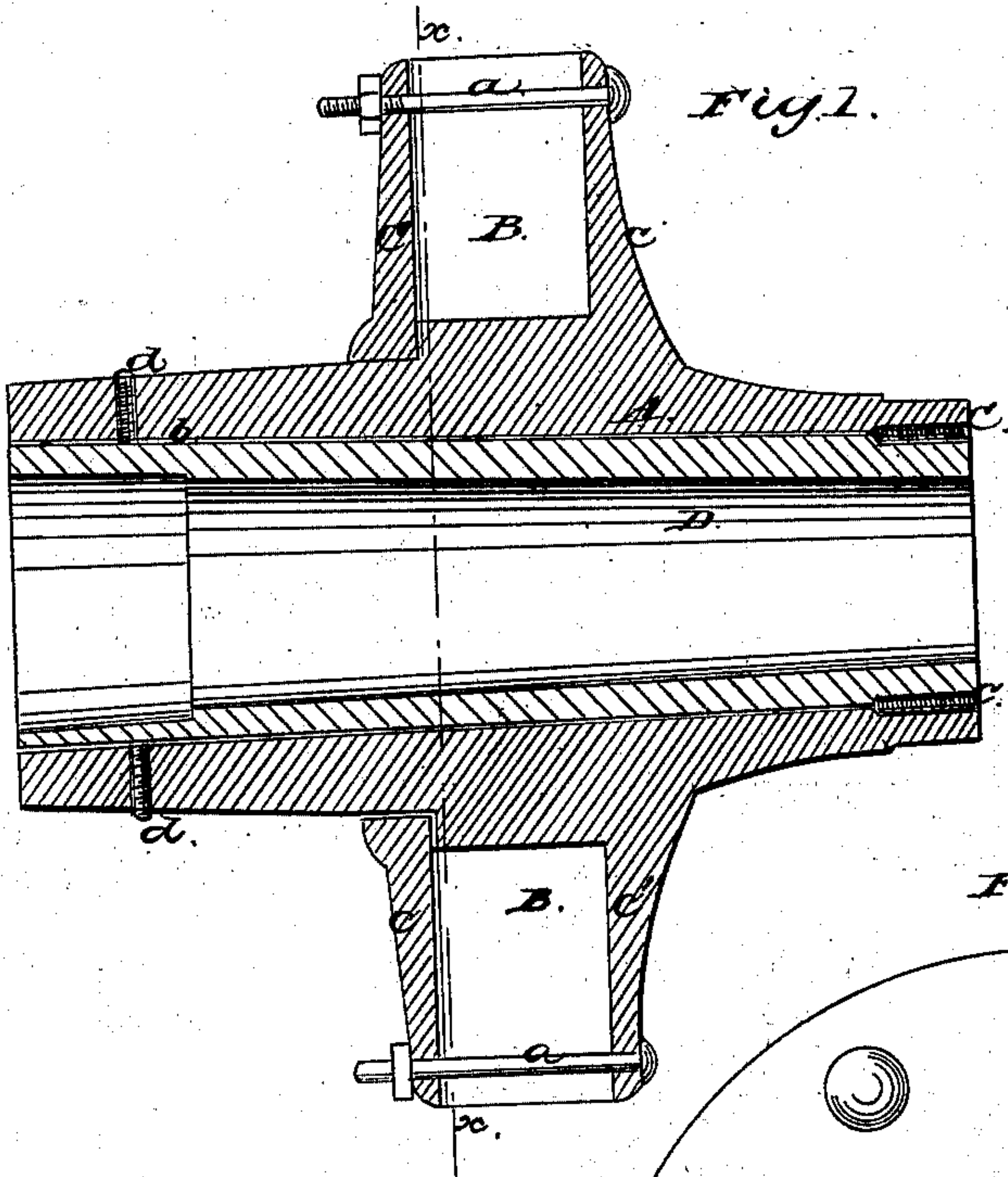


Fig. 1.

Fig. 3.

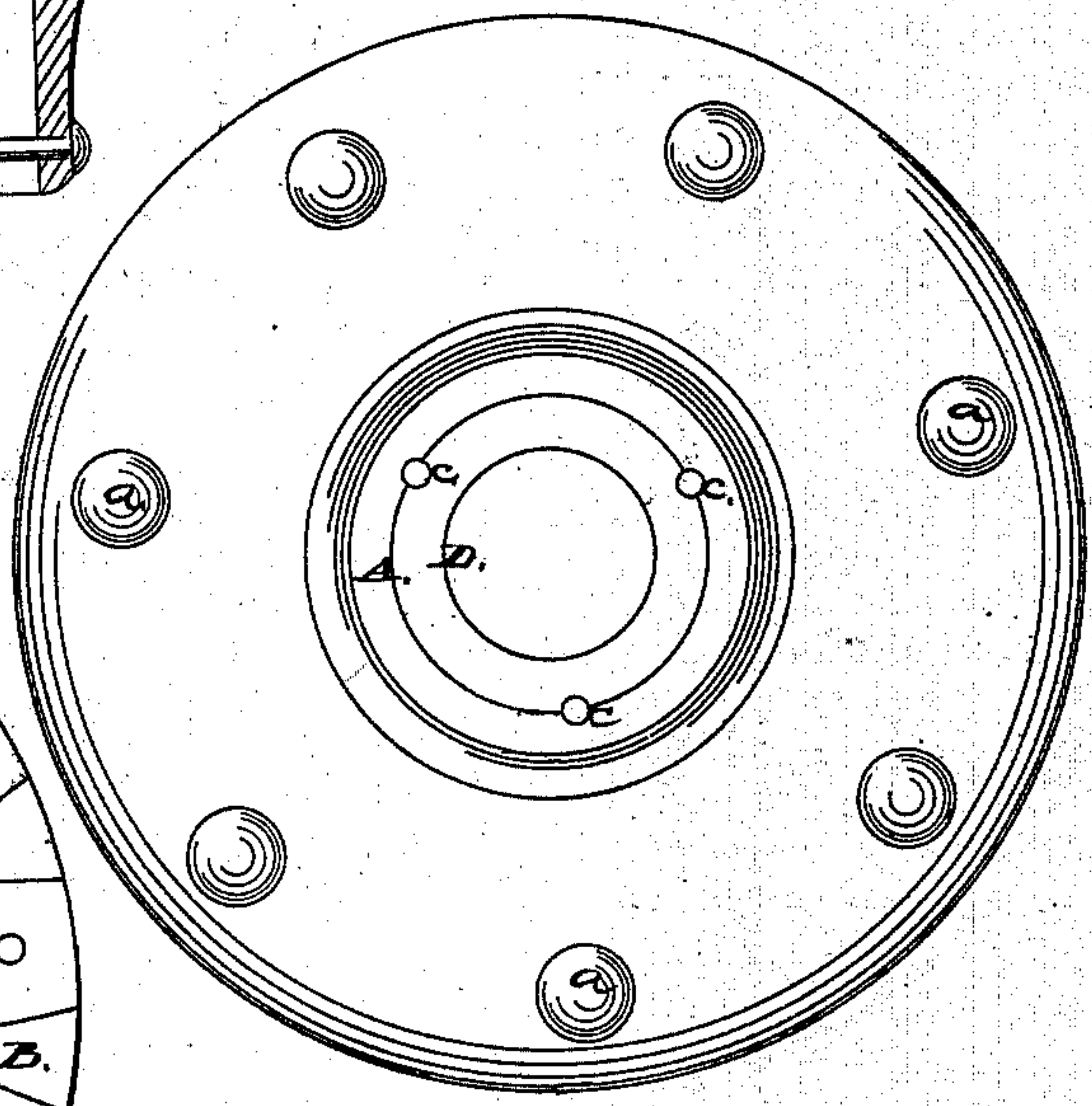
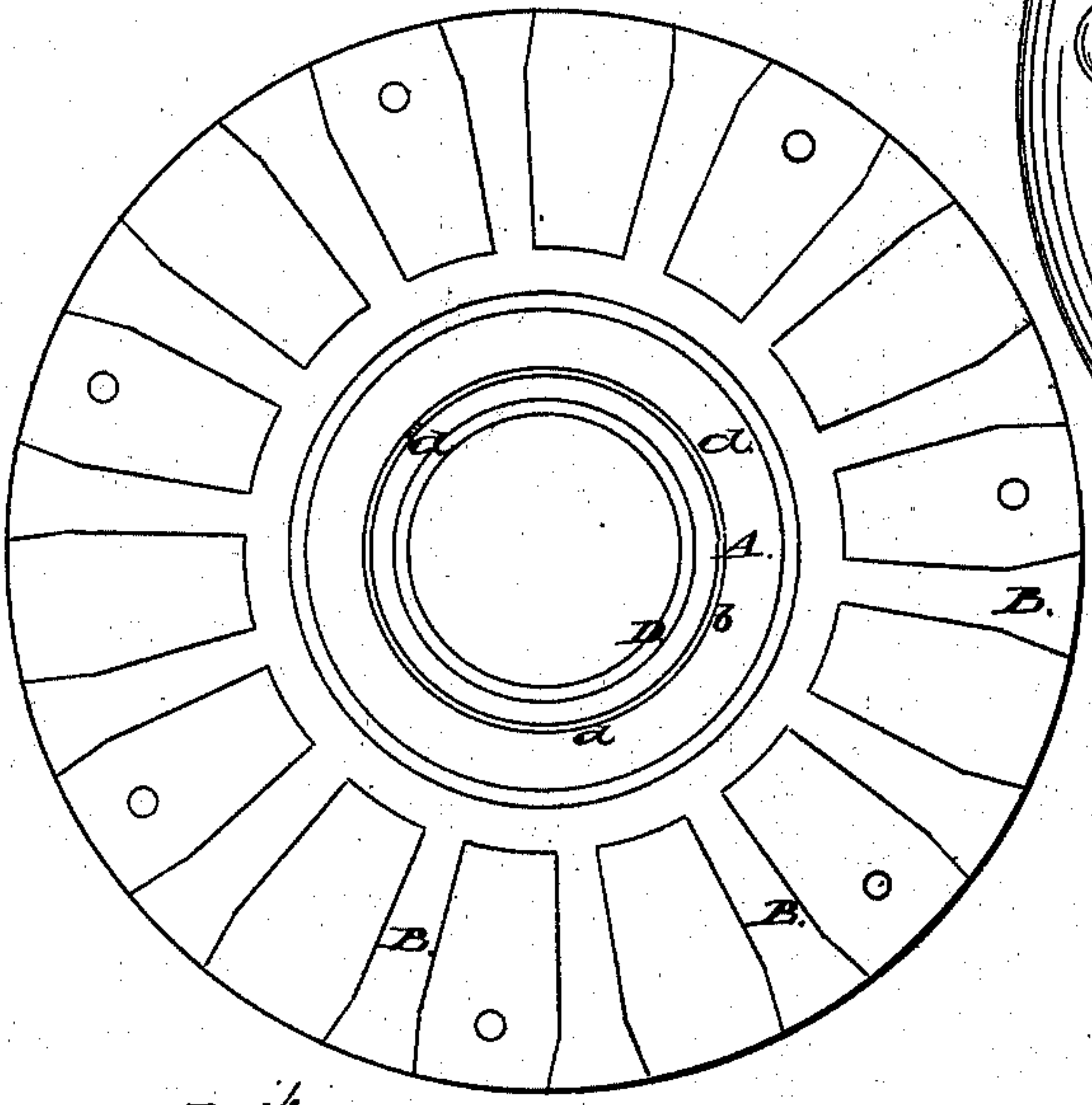


Fig. 2.



Witnesses.

J. H. Fusch  
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# UNITED STATES PATENT OFFICE.

JAMES B. STUART, OF BUNKER HILL, ILLINOIS.

## IMPROVEMENT IN THE MODE OF SECURING BOXES IN METALLIC HUBS.

Specification forming part of Letters Patent No. 61,890, dated February 5, 1867.

*To all whom it may concern:*

Be it known that I, JAMES B. STUART, of Bunker Hill, Macoupin county, State of Illinois, have invented a new and Improved Mode of Securing Boxes in Metallic Hubs for Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, Sheet No. 1, is a longitudinal central section of my improvement; Fig. 2, a transverse section of the same, taken in the line *xx*, Fig. 1; Fig. 3, an end view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved mode of securing boxes in metallic hubs for the wheels of carriages and other vehicles; and has for its object the securing of the box in the hub in such a manner that they may be adjusted concentric with each other and without any possibility of the box slipping within the hub and the former rendered capable, if worn by use, of being readily removed from the latter, and a new one inserted in its place.

A represents the hub of the wheel, which is of cast iron and cast with flanges B, the spaces between which receive the inner ends of the spokes of the wheels, the spokes being secured between the flanges by a collar, C, secured by bolts *a* to a collar, C', from which the flanges project laterally. The hub A is cast with a central longitudinal opening, *b*, slightly tapering from the inner to the outer end of the hub, as shown in Fig. 1. This opening *b* receives the box D, which is fitted

and works upon the axle of the vehicle. The box D is of cast-iron and is also of taper form, nearly corresponding to the central opening *b* in the hub, the rear part of the box being externally a trifle less in diameter than the rear part of the opening *b*, or, in other words, the box D has a rather less taper than *b*, to admit of the adjustment of the former within the latter, to insure the concentric position of D within *b*. The exterior diameter of the box D, at its outer end, is equal in diameter to the outer end of the opening *b*, so that the front end of D will fit snugly in the front end of *b*, and holes are made longitudinally between D and the inner side of the hub and tapped or provided with screw-threads to receive screws *c*, one-half of the holes being in the exterior of D and the other half in the hub. These screws *c* effectually prevent the box D from turning within the opening *b* of the hub, and also from moving in a longitudinal direction. Through the rear part of the hub screws *d* pass in a transverse direction and bear against the box D.

By turning the screws *d* it will be seen that the box D may be adjusted concentrically within the hub, and in case the box becomes worn by use it may be readily detached and a new one inserted in its place.

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

The securing of boxes D in metallic hubs by means of the screws *c* and *d*, substantially as and for the purpose herein set forth.

JAMES B. STUART.

Witnesses:

SAMUEL BOOTH,  
W. F. JOHNSON.