

H. BRADY.

Axle-Box.

No. 67,946.

Patented Aug 20, 1867.

Fig. 1.

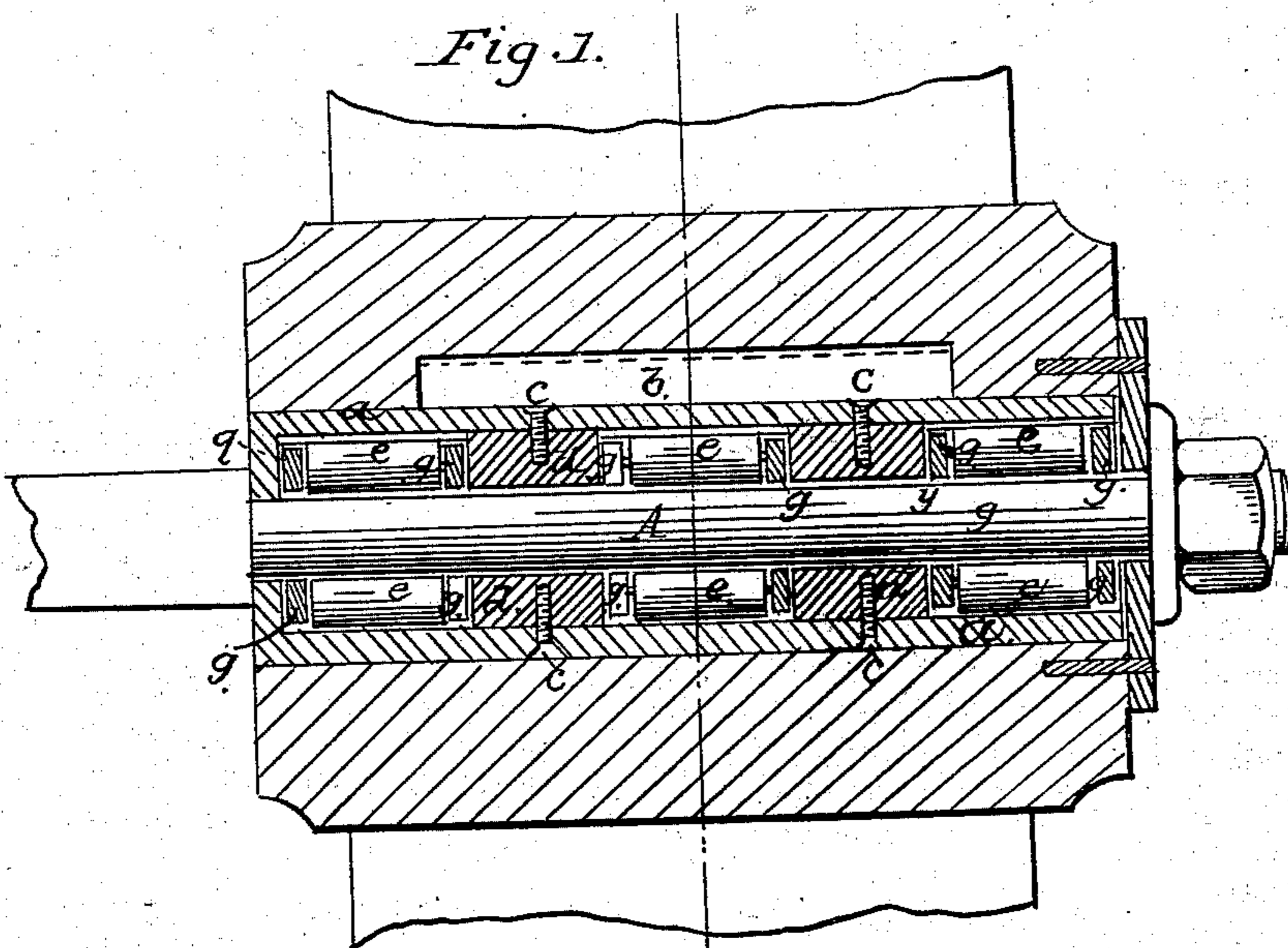


Fig. 2.

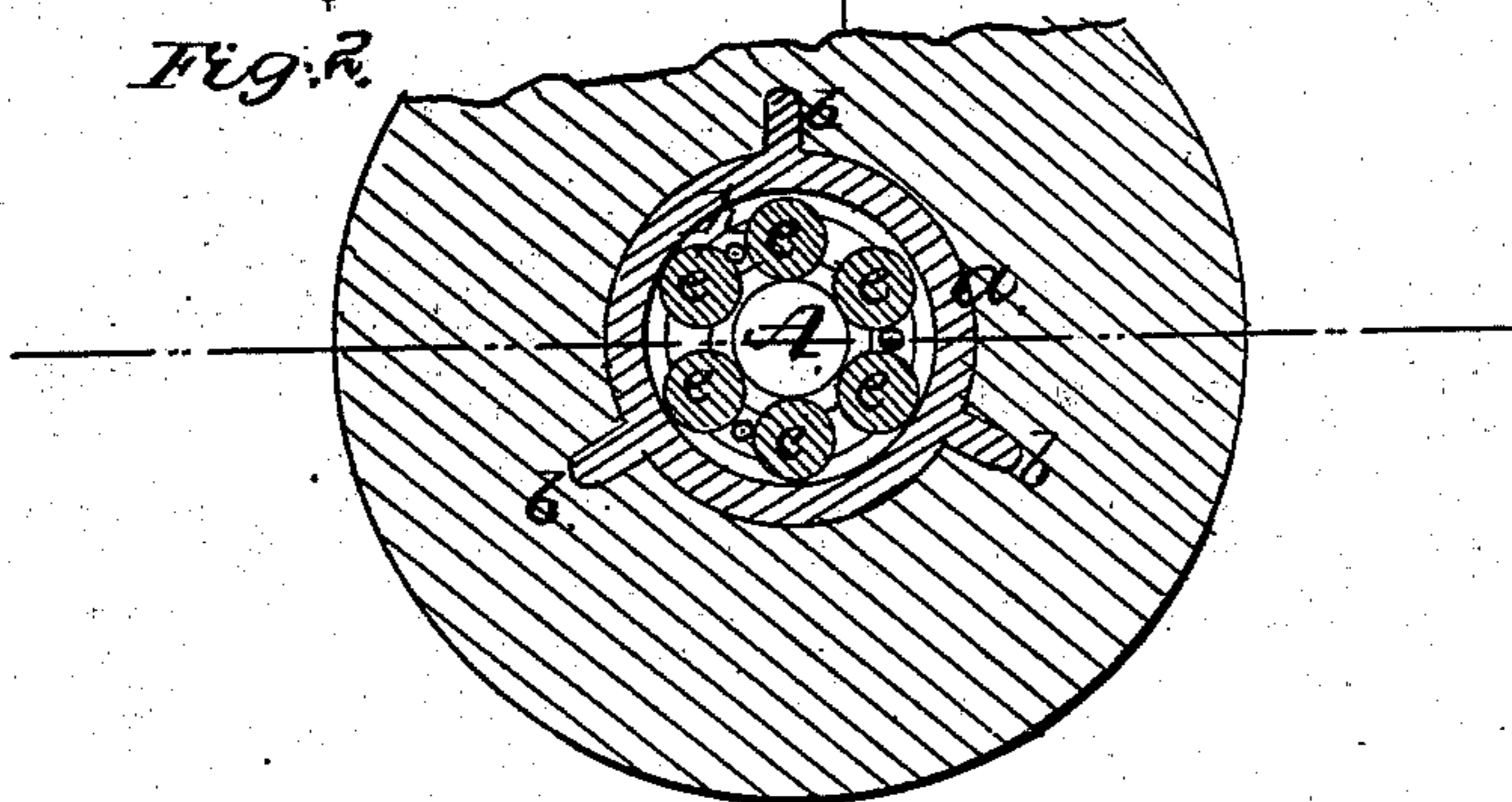
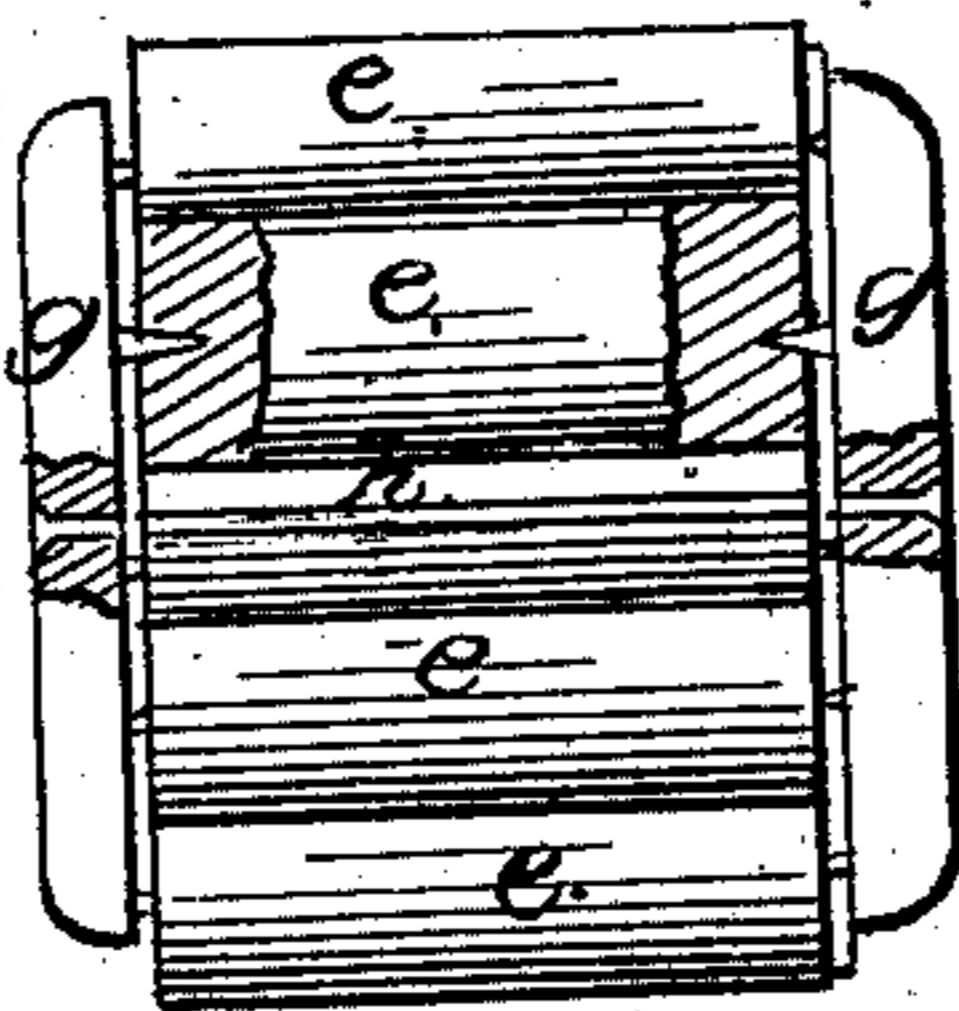


Fig. 3.



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HUGH BRADY, OF FACTORYVILLE, NEW YORK.

Letters Patent No. 67,946, dated August 20, 1867.

IMPROVEMENT IN AXLE-BOXES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HUGH BRADY, of Factoryville, in the county of Richmond, and State of New York, have invented a new and useful Improvement in Axle-Boxes; 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 part of this specification, in which—

Figure 1 is a central longitudinal section of my improved axle-box.

Figure 2 is a transverse section of the same.

Figure 3 is a detached view of a set of friction-wheels on which the axle runs.

Similar letters of reference indicate like parts.

The nature of this invention consists in enclosing in the axle-box a number of sets of friction-rollers hung loosely upon circular bearings, each set of rollers being separated by partitions which are formed of rings made fast by screws through the axle. The arm of the axle is enclosed by the rollers, which turn loosely upon it as the wheel revolves, and thus relieve the friction so entirely as to render oil or grease unnecessary to run easily and without excessive wear of the metal.

The axle-box *a* is made of cast or malleable iron, on the outside of which are lugs or spur projections, *b b*, running lengthwise of the box to hold it firmly in the hub of a wheel. Within the axle-box are secured by screws *c c*, ring partitions *d d*, between which are placed sets of rollers *e e*, hung on disk-bearings *g g*, which are secured at each end of the rollers by cross-bars *h h*, placed between the rollers, as shown clearly in fig. 3. The outer surface of the rollers *e e* projects outside of the periphery of the disk-bearings *g g*, and lies directly in contact with the inside surface of the axle-box, while the inner surface of the rollers lies directly in contact with the axle *A*. It will be seen by this arrangement that each set of rollers will play loosely in the chambers between the partitions *d d*, and will turn upon the axle with the revolution of the wheel in such manner that there will be little or no friction to retard motion.

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

The friction-rollers *e e*, hung in the disk-bearings *g g*; in combination with the partitions *d d*, enclosed in the axle-box *a*, constructed, arranged, and operating substantially as and for the purpose herein described.

HUGH BRADY.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.