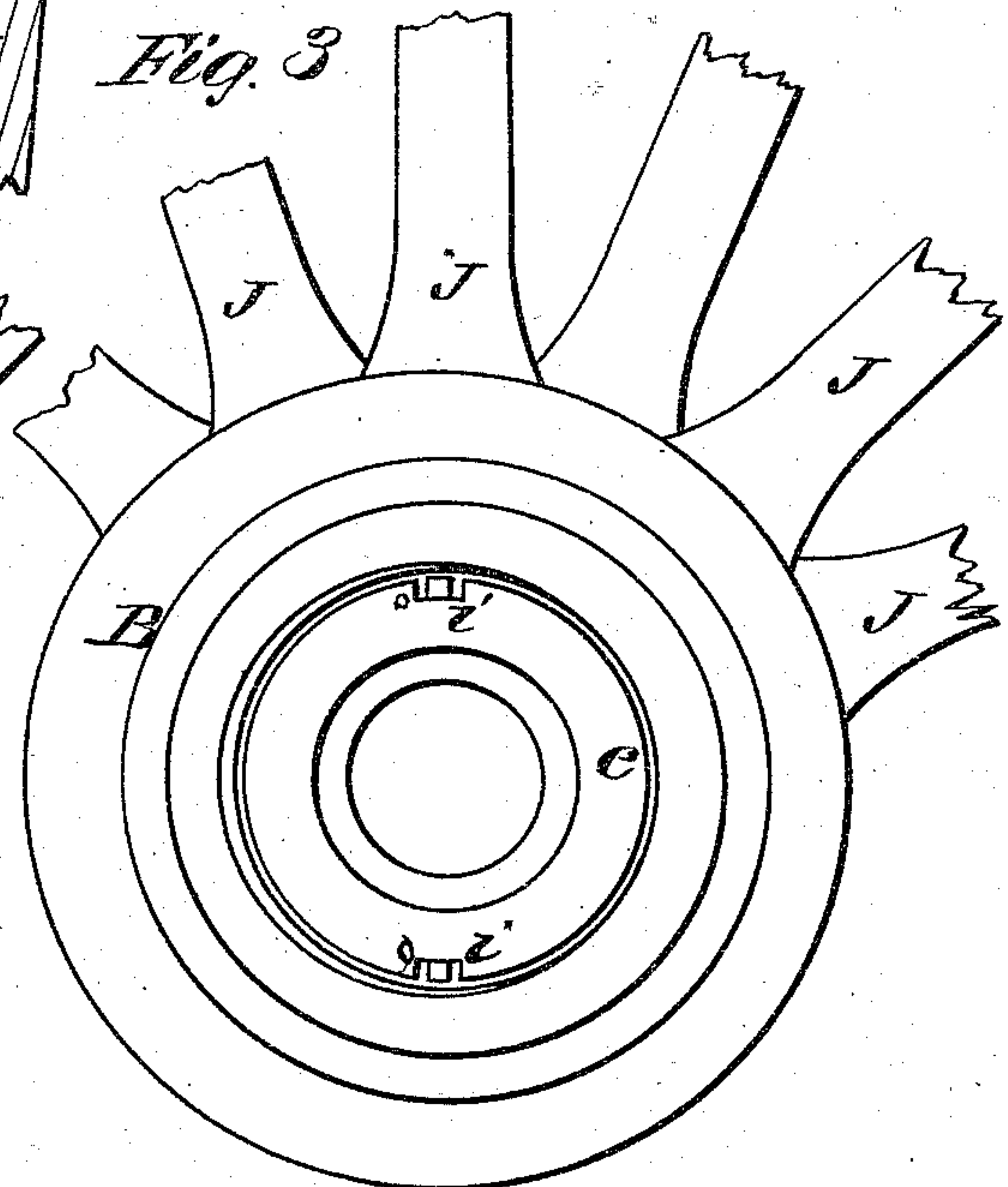
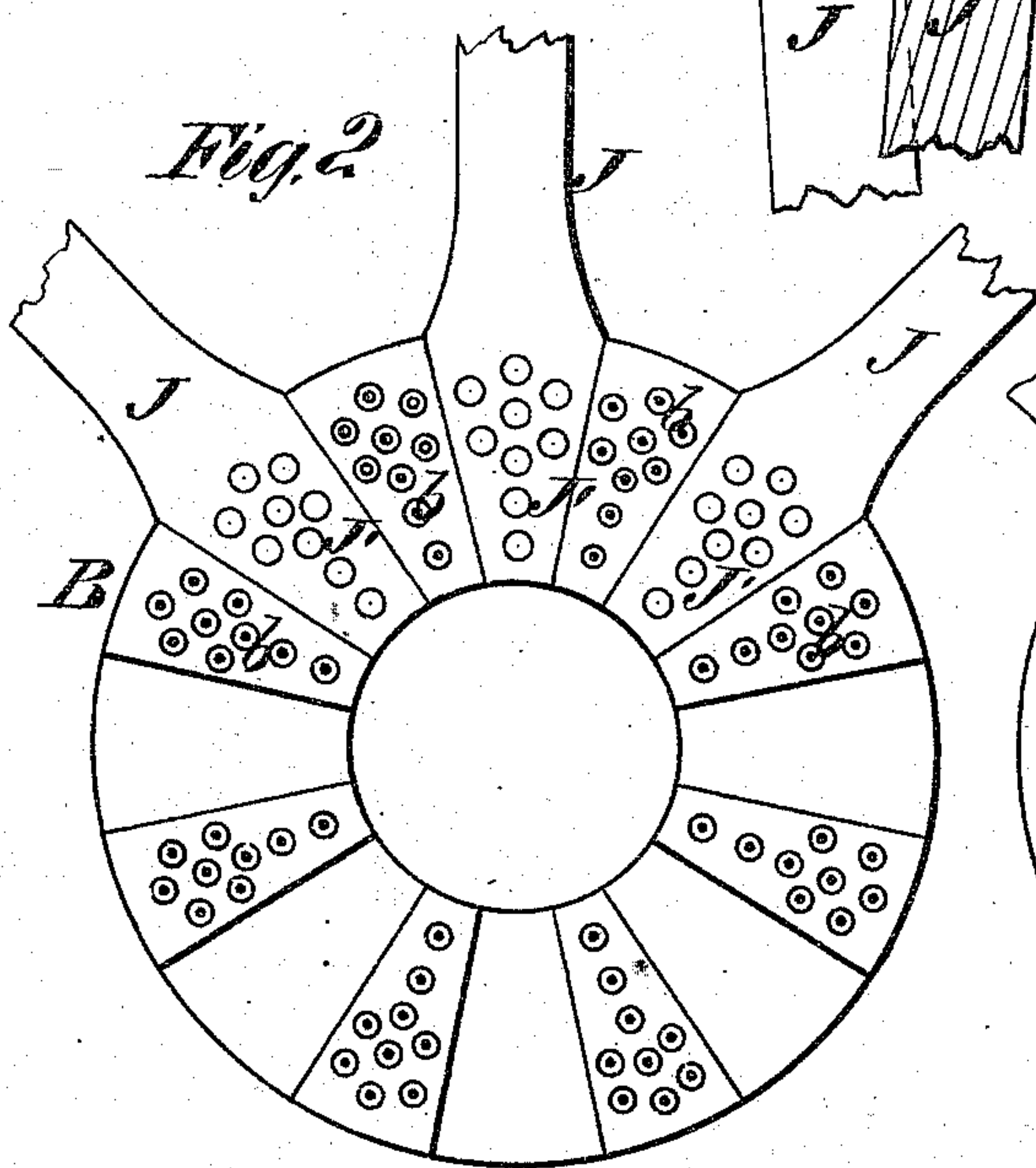
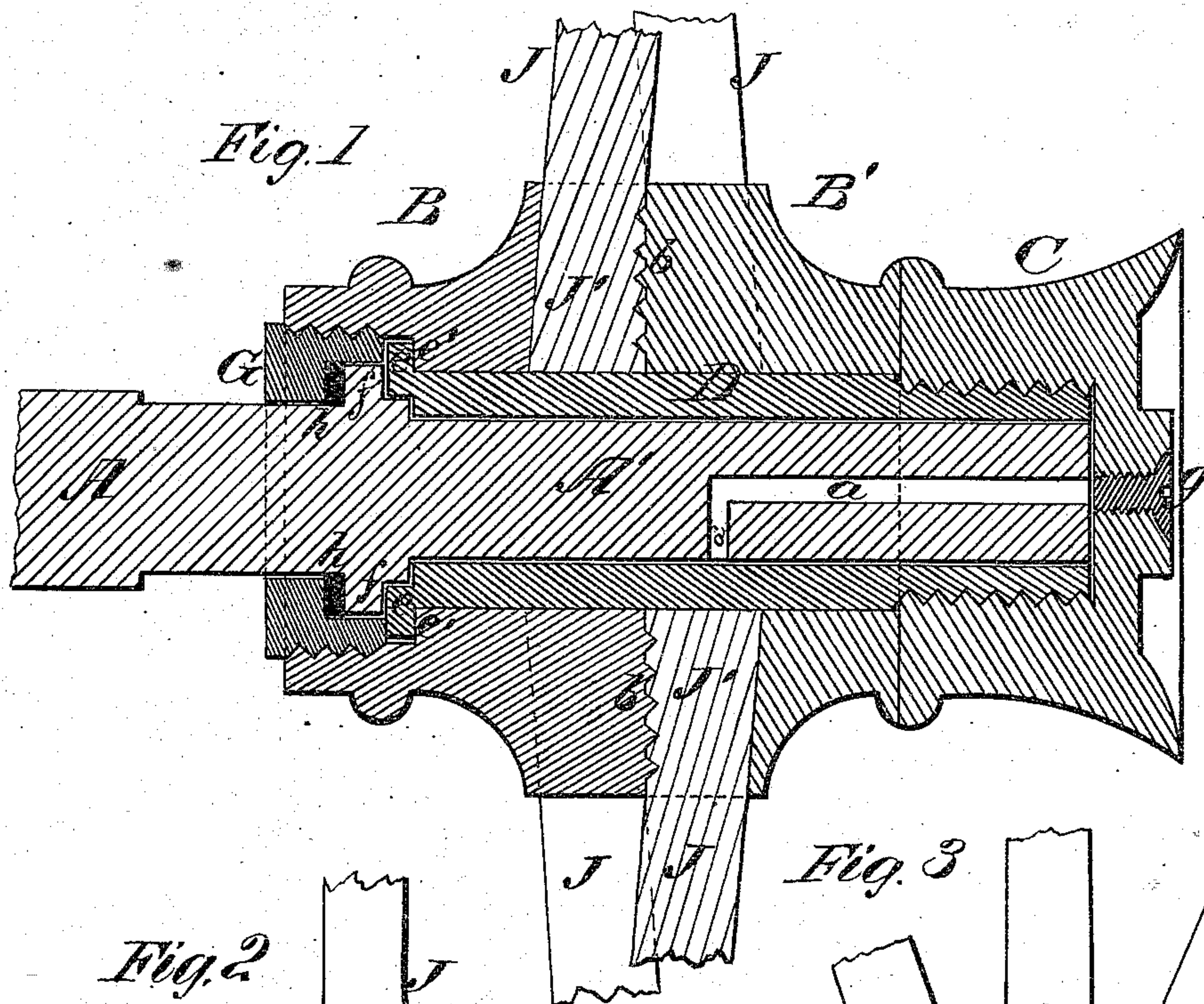


A. N. PRICE.
Hubs for Vehicle Wheels.

No. 158,737.

Patented Jan. 12, 1875.



WITNESSES
E. H. Bates
Robert Everett

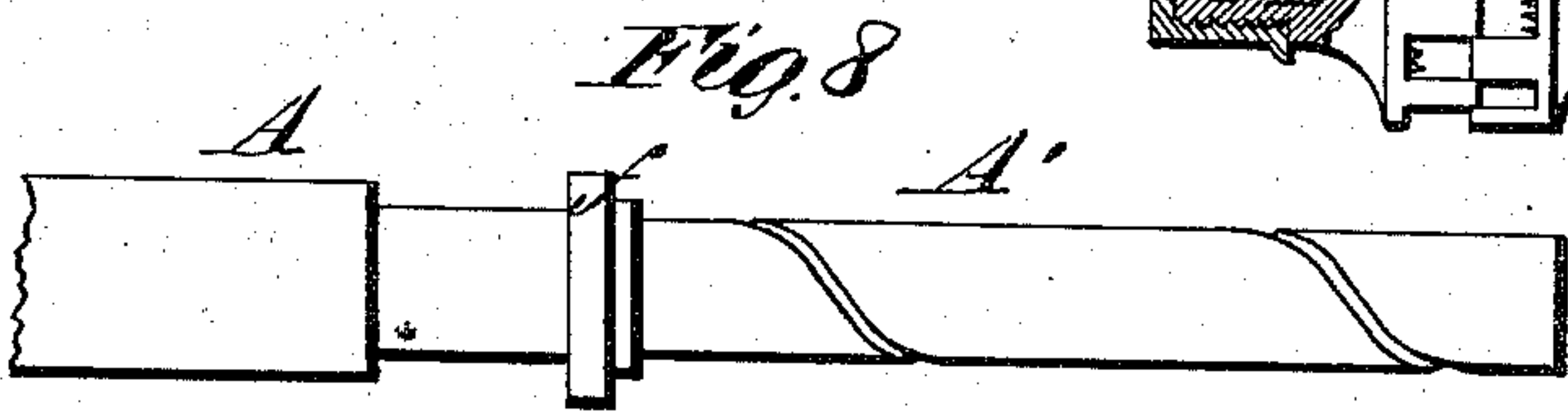
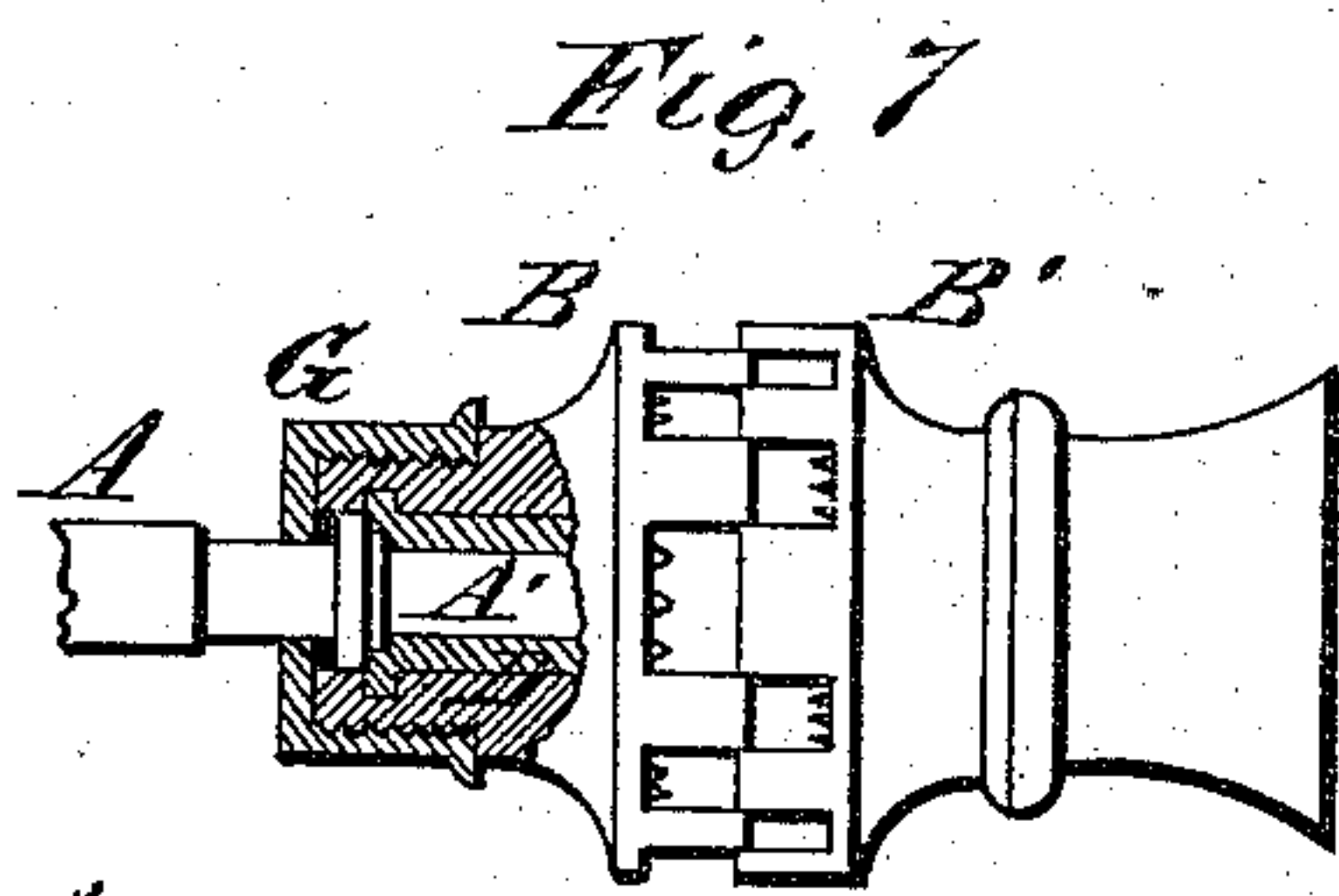
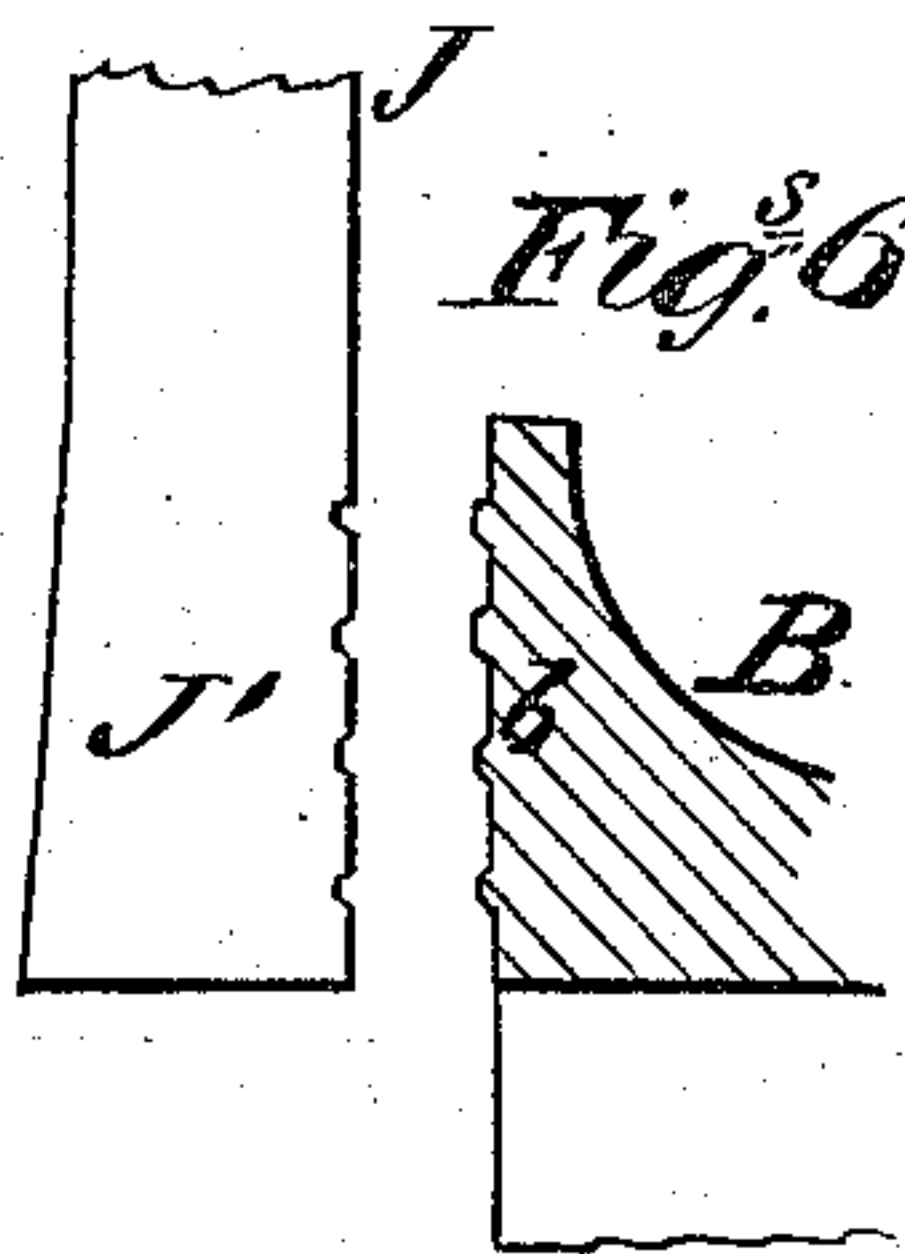
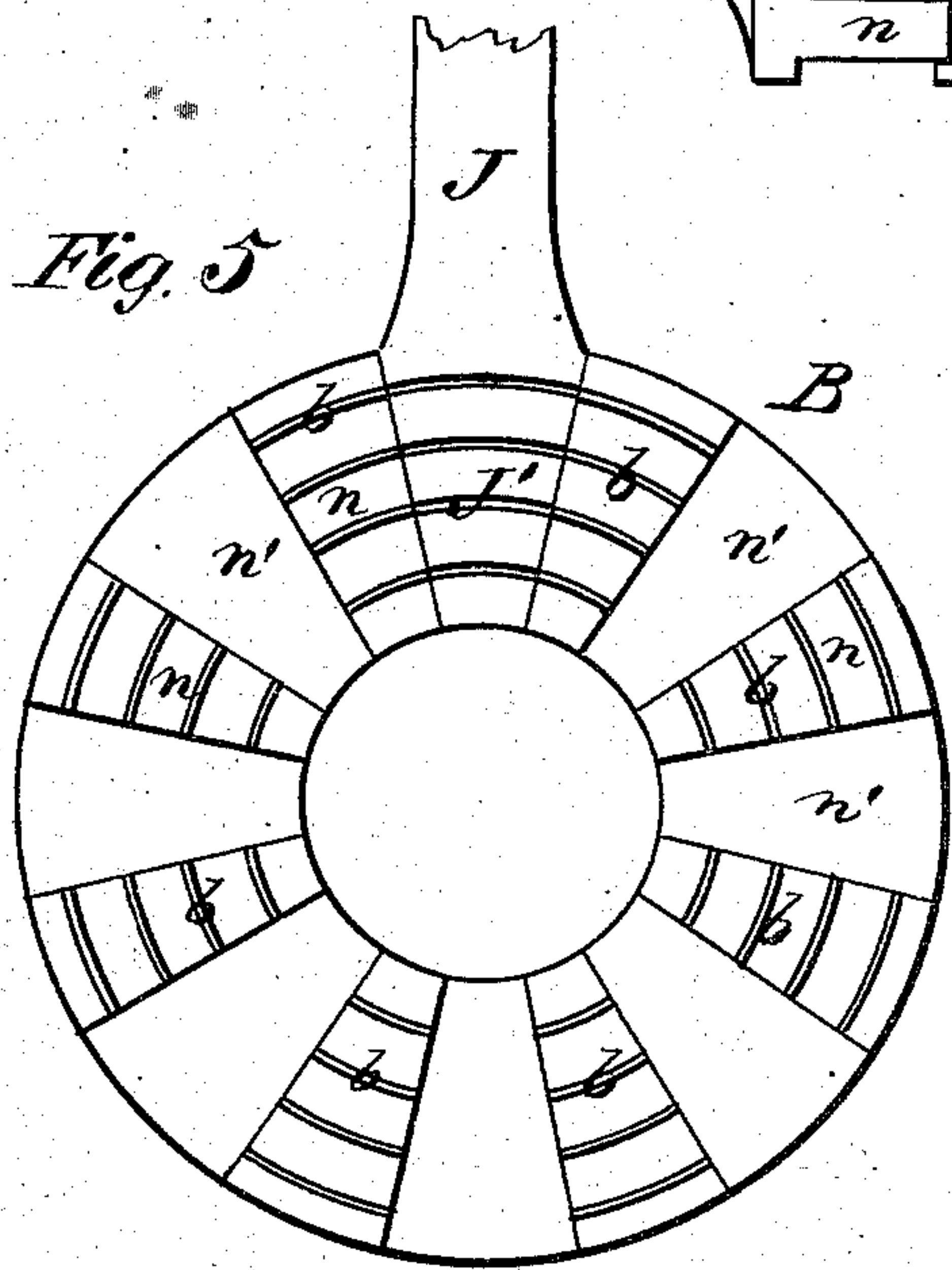
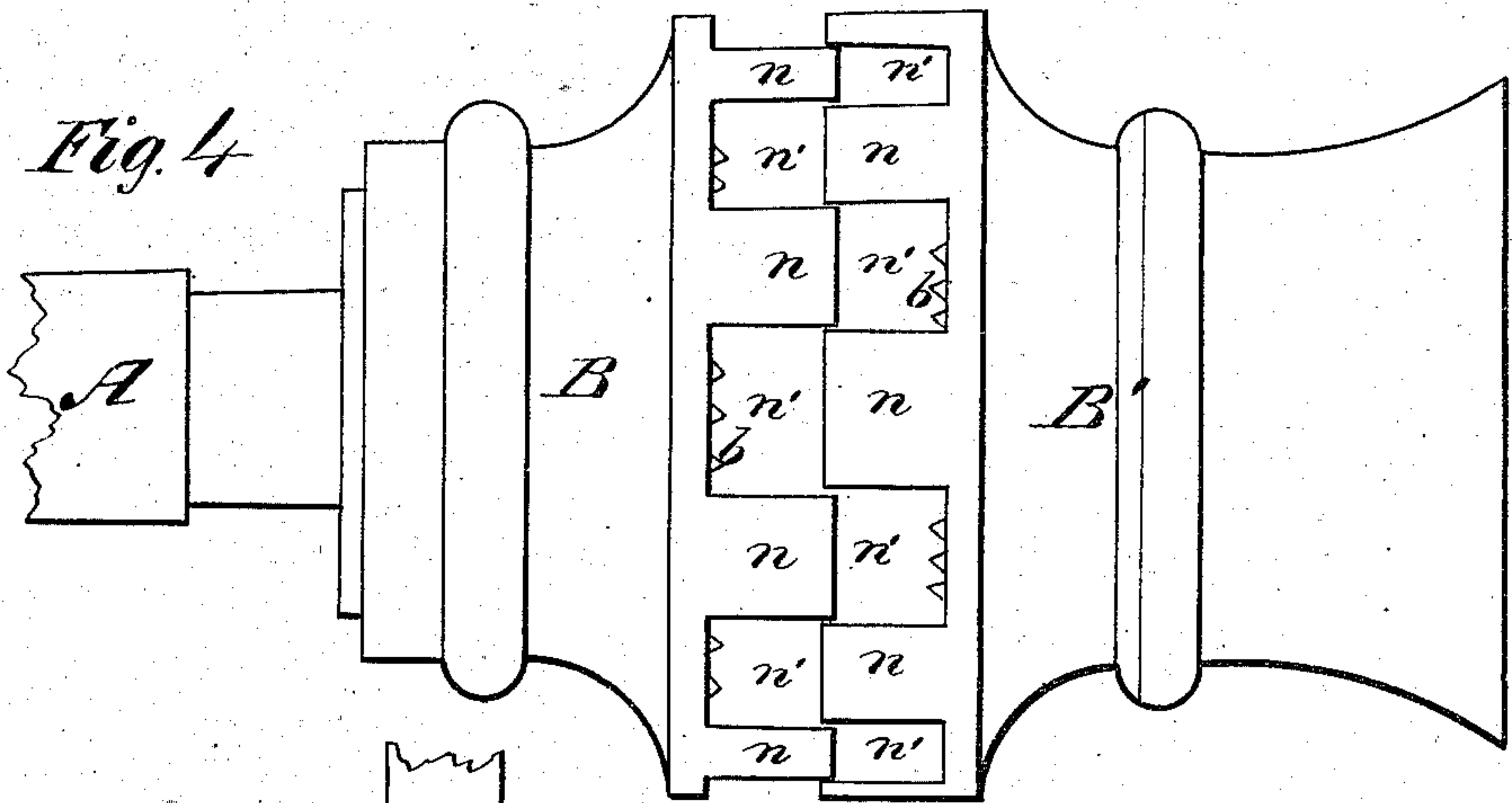
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UNITED STATES PATENT OFFICE.

ADAM N. PRICE, OF JAMESTOWN, NEW YORK.

IMPROVEMENT IN HUBS FOR VEHICLE-WHEELS.

Specification forming part of Letters Patent No. 158,737, dated January 12, 1875; application filed October 24, 1874.

To all whom it may concern:

Be it known that I, ADAM N. PRICE, of Jamestown, in the county of Chautauqua and State of New York, have invented a new and valuable Improvement in Vehicle Wheels and Axles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical sectional view of my vehicle wheel and axle. Fig. 2 is a detail view. Fig. 3 is a rear view. Fig. 4 is a plan view, and Figs. 5, 6, 7, and 8 are detail views, of the same.

This invention relates to an improvement in lubricating axles without removing the wheels therefrom; also in dodging or staggering the spokes in a two-part hub in such manner that the spokes can be tightened when their tenons shrink, all as will be hereinafter explained.

The following is a description of my improvements:

In the annexed drawings, A designates the axle, and A' the journal thereof, in which latter is an oil-hole, *a*, which enters at the outer end of the journal, and communicates with the interior of the pipe-box B by means of a cross-passage, *a'*, at or near the middle of the length of the journal, as shown in Fig. 1. Oil is supplied to the receptacle *a* through a hole, which is made through a screw-cap, C, which hole is tightly closed by a screw-plug, *g*, thus excluding dust and other foreign matters. The pipe-box D, on which the cap C is screwed, is constructed with an annular flange, *e*, on its inner end, which flange is drawn tightly against a shoulder, *e'*, in the inner end of a hub-section B, by means of said cap C. The pipe-box D is prevented from rotating in the sections B B', by means of pins *i i* on the section B fitting into notches *o* made in the periphery of the flange *e*, shown in Fig. 3. G designates a hollow screw-plug, which is tapped into the inner end of the hub-section B for the purpose of confining a packing, *h*, against a collar, *f*, on the axle, and thus excluding dust and keeping in the oil. The adjoining faces of the two hub-sections B B are constructed alike to receive the tenons J' on the spokes J, which spokes are inserted staggering or zigzag into the mortises *n'* between the tenons *n*. The tenons *n* on one section

are of such width that they will snugly enter the recesses or mortises *n'* of the other section, so that when the two sections are drawn together, after the spokes have all been inserted the tenons *n* will interlock with one another, and they will bear hard on the spoke-tenons, so as to clamp and firmly hold them in their places. By this arrangement the tenons of the spokes can be made of any desired thickness, and when they shrink, by screwing up the cap C, they can all be properly tightened again. For the purpose of more firmly securing the spoke-tenons J' in their mortises, these tenons are made dovetailing, as shown in Figs. 1 and 6, and the mortises are made of a corresponding shape. As a still further security, I make indentations or annular grooves, or serrations, indicated by letter *b* in the surfaces of the tenons *n*, which will impress themselves into the surfaces of the spoke-tenons J' when the sections B B' are forcibly clamped together, as described, and thus prevent displacement of the spokes under the roughest usage.

Fig. 7 shows the cap G applied on the outside of the hub, and Fig. 8 shows a spiral oil-feeding groove on the outside of the journal A', which may be used in combination with the groove *a*, or it may be used alone.

What I claim as new, and desire to secure by Letters Patent, is—

1. The journal A, having the oil-passages *a a'*, and collar *f*, in combination with the nut G, pipe-box D, cap C, and screw-plug *g*, substantially as and for the purpose set forth.

2. The pipe-box D, having an annular flange, *e*, on its inner end, provided with notches *o*, in combination with the hub-sections B B', pins *i i*, nut G, and cap C, substantially as and for the purpose set forth.

3. The hub-section B, provided with the tenons *n* and mortises *n'*, having projections *b b*, in combination with the similarly-formed hub-section B', the tenons of which break joints with those in the opposite hub-section B, and spokes J, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

A. N. PRICE.

Witnesses:

O. F. PRICE,
HATTIE E. PRICE.