

No. 682,418.

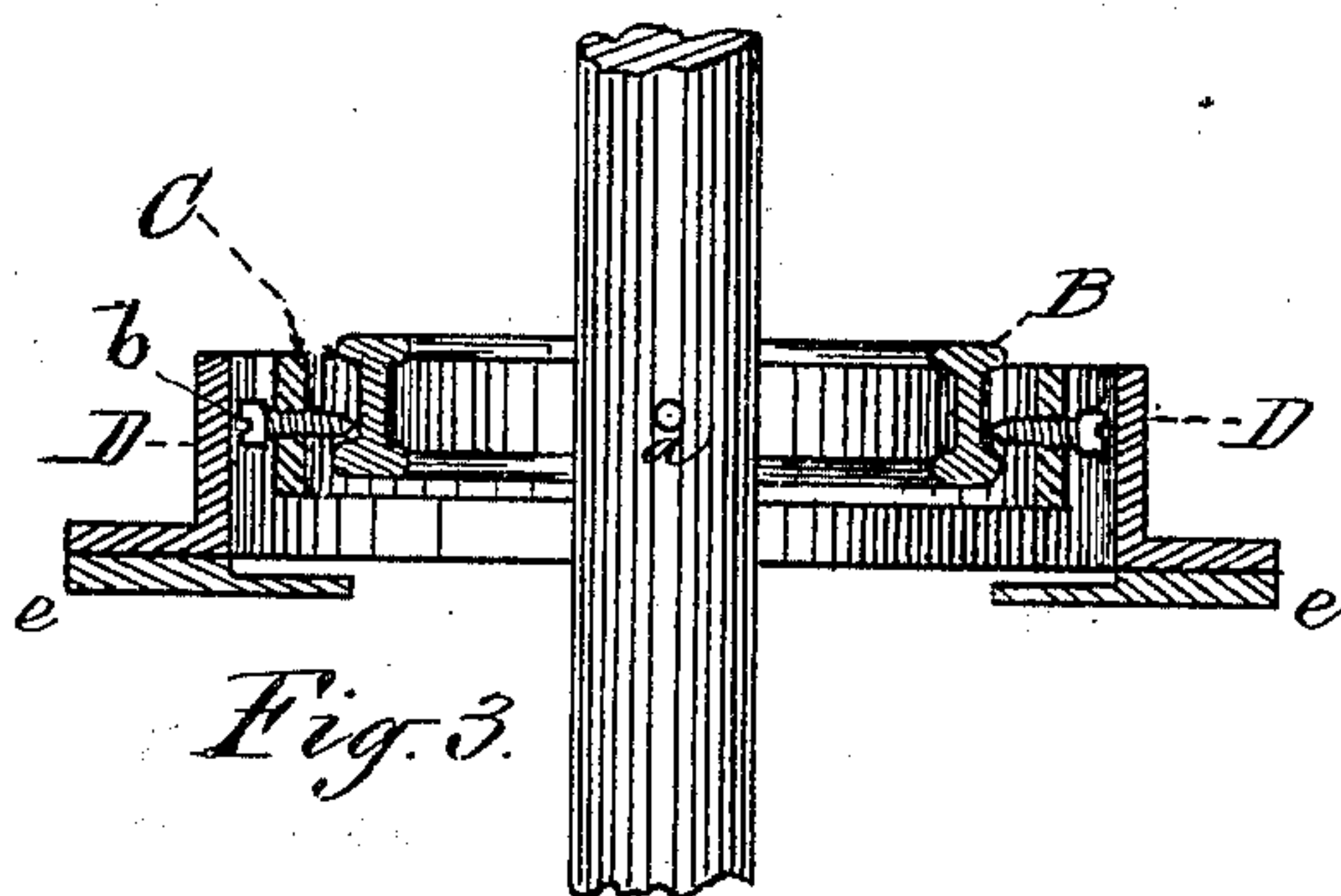
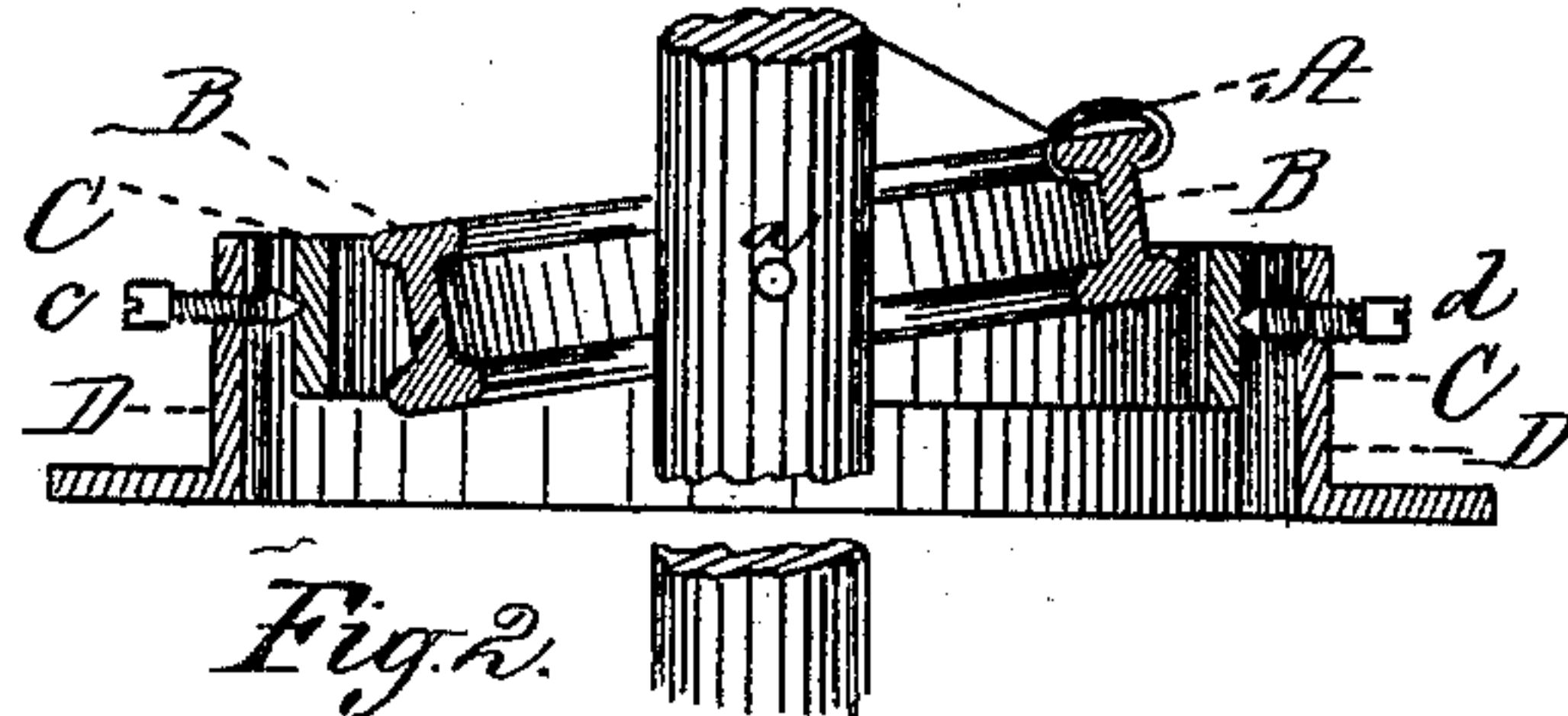
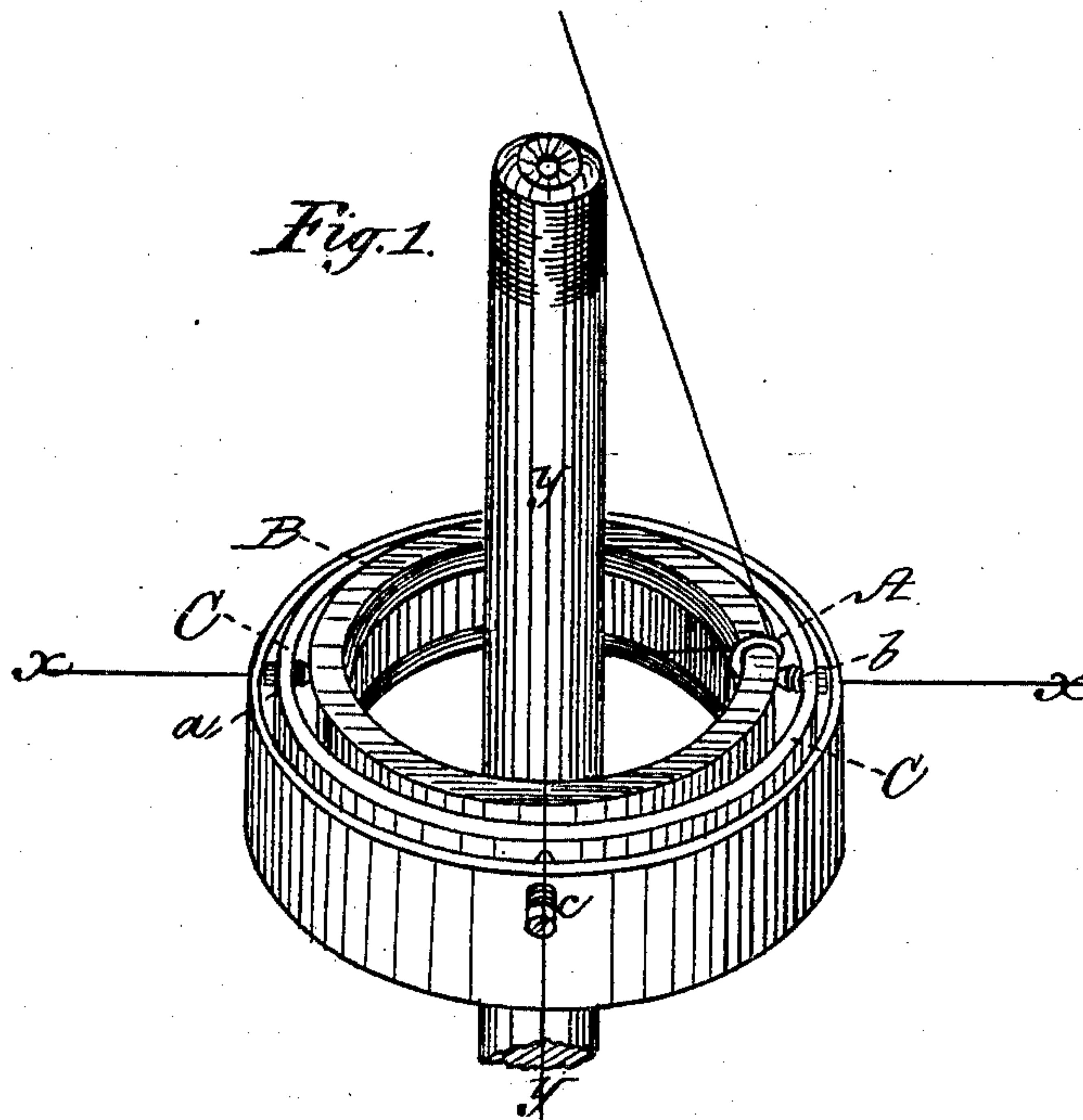
T. F. & F. E. MOBERG.

Patented Sept. 10, 1901.

SPINNING RING

(Application filed Nov. 8, 1900.)

(No Model.)



Witnesses,
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UNITED STATES PATENT OFFICE.

THURE. F. MOBERG AND FRED. E. MOBERG, OF BOSTON, MASSACHUSETTS.

SPINNING-RING.

SPECIFICATION forming part of Letters Patent No. 682,418, dated September 10, 1901.

Application filed November 8, 1900. Serial No. 35,865. (No model.)

To all whom it may concern:

Be it known that we, THURE. F. MOBERG and FRED. E. MOBERG, of Boston, Suffolk county, State of Massachusetts, have invented certain Improvements in Spinning-Rings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

10 Figure 1 is a view of a spinning-ring having our improvements applied thereto. Fig. 2 is a central vertical section taken in the direction of the line *yy* of Fig. 1; and Fig. 3, a section taken in the direction of the line *xx* of Fig. 1, the position of the parts being as shown in Fig. 1.

To reduce the friction of the traveler upon its ring, equalize the tension of the yarn, and lay it upon the bobbin with greater speed without breaking is the aim of our present invention, which consists in a traveler-ring in combination and connected with a yielding support or holder in such manner that a gyratory motion is imparted to the former, which insures the desired tension of the yarn upon the traveler during the different stages of winding, the construction and novel arrangement of parts embodying our invention being hereinafter described, and set forth in the claims.

In the said drawings, which illustrate one form of our invention, A represents the traveler, free to traverse the upper rail of the non-revoluble ring B, which is pivoted to an outer non-revoluble ring C at points *a b*, diametrically opposite each other, said ring C being pivoted to a stationary frame D at points *c d*, diametrically opposite each other, the vertical plane passing through the points *a b* being at right angles or substantially at right angles to the vertical plane passing through the points *c d*, the result of thus pivoting the rings B C

being that each one, while not revoluble, is permitted to tip or rock on its pivots to one side and the other and rises and falls by the pull or tension of the yarn on the traveler while forming the cop, the traveler rotating around the top rail of the non-revoluble ring B and its speed being increased without breakage of the yarn. The motion imparted to the traveler is similar to that illustrated by the gyroscope. The inclination of the ring C is limited by stops *e e*, projecting inwardly from the bottom of the frame D, or by any other simple device.

We claim—

1. As an improvement in spinning-rings a traveler and a non-revoluble traveler-ring in combination with and pivoted to a support which permits the traveler to traverse a gyratory path when the tension of the yarn rotates it around the traveler-ring, constructed to operate substantially as described.

2. As an improvement in spinning-rings a traveler-ring B, an outer ring C to which it is pivoted at points *a b* substantially diametrically opposite, in combination with a stationary supporting-frame D to which the ring C is pivoted at points *c d* diametrically opposite, but located in a vertical plane at right angles to the vertical plane passing through the pivots of the traveler-ring, whereby the latter is given a gyratory motion by which a uniform tension of the yarn is maintained and its breakage prevented, substantially as set forth.

In testimony whereof we have hereunto signed our names in presence of two subscribing witnesses.

THURE. F. MOBERG.
FRED. E. MOBERG.

Witnesses:

N. W. STEARNS,
F. ROCKWOOD HALL.