

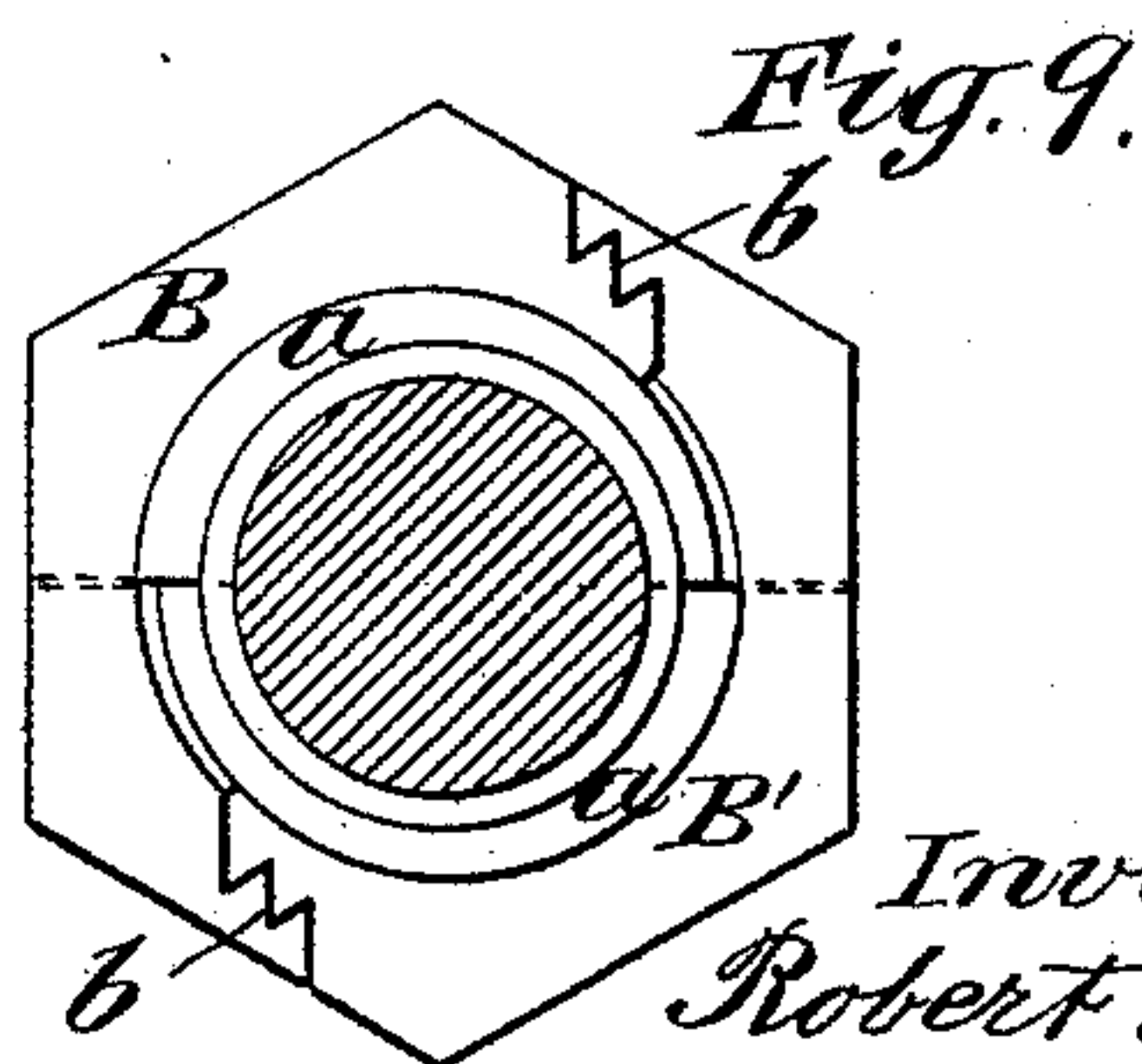
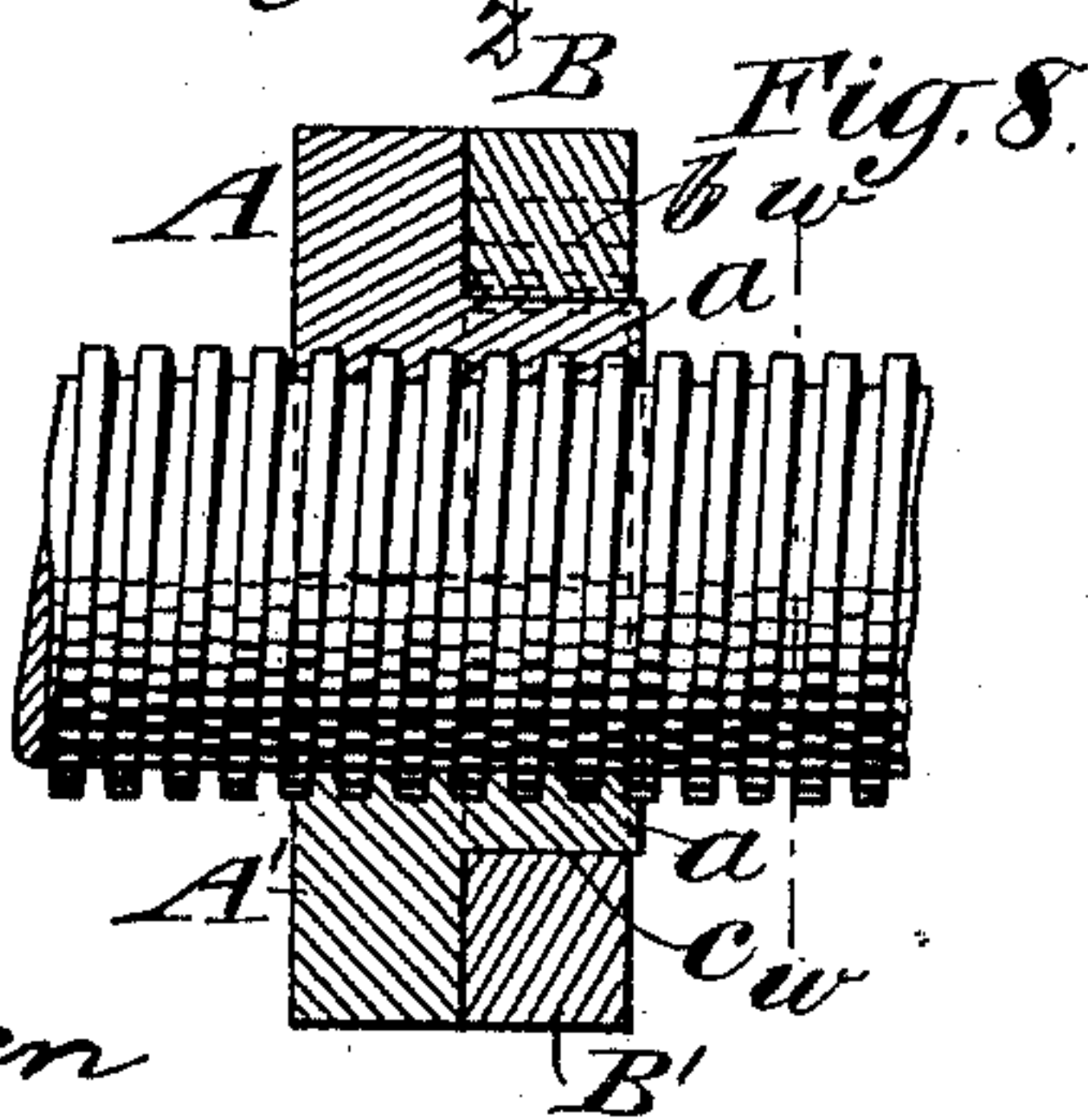
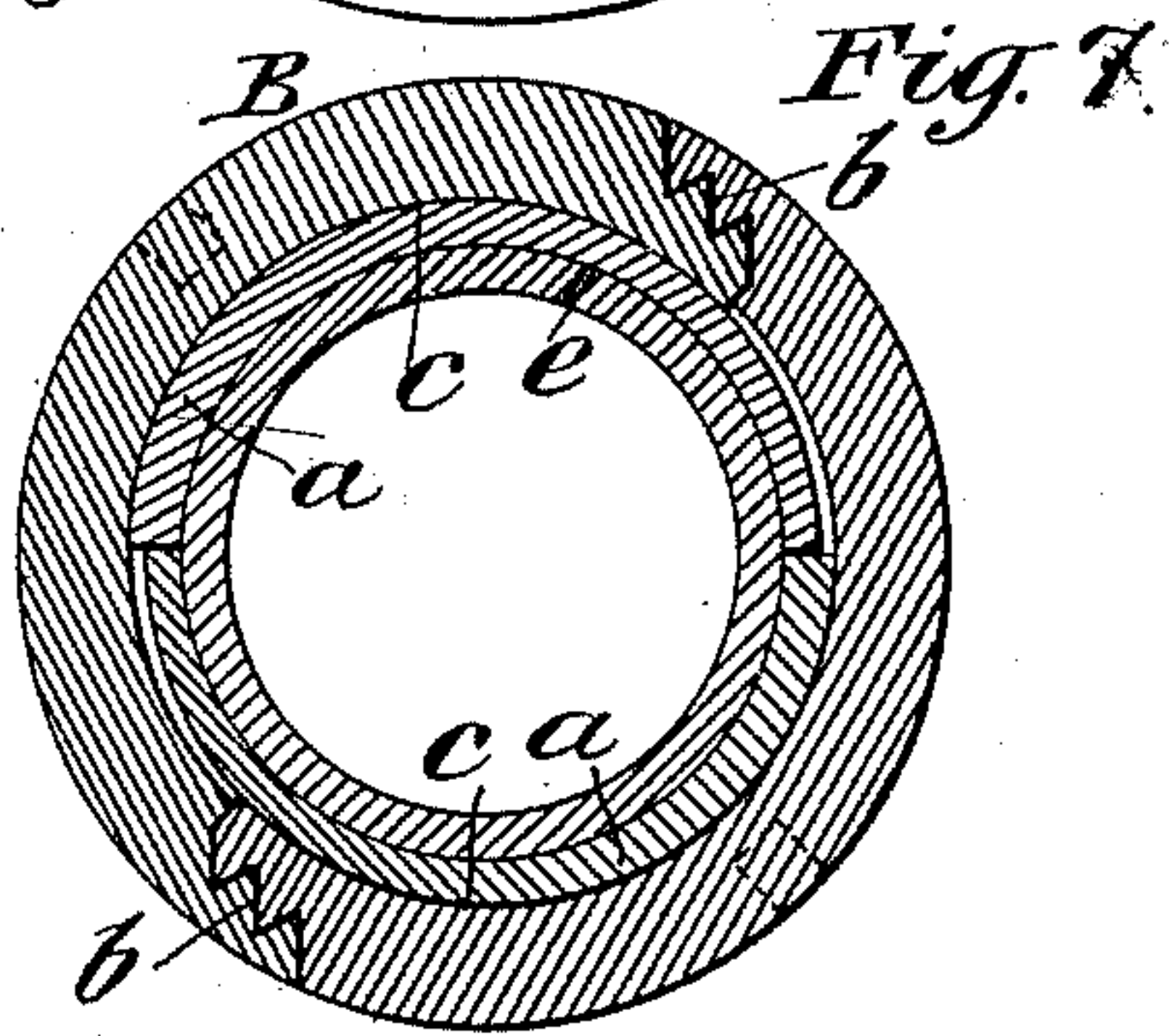
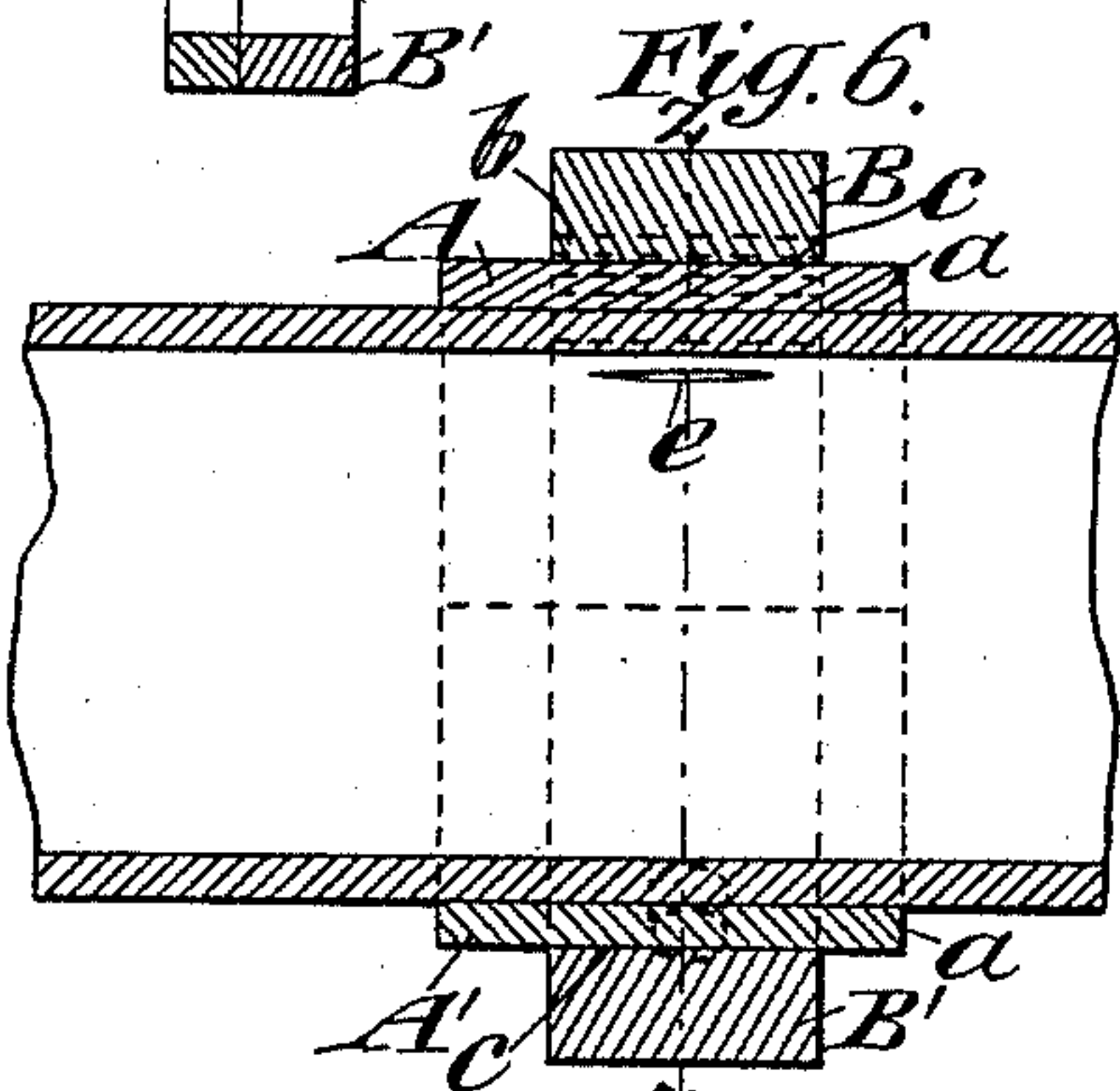
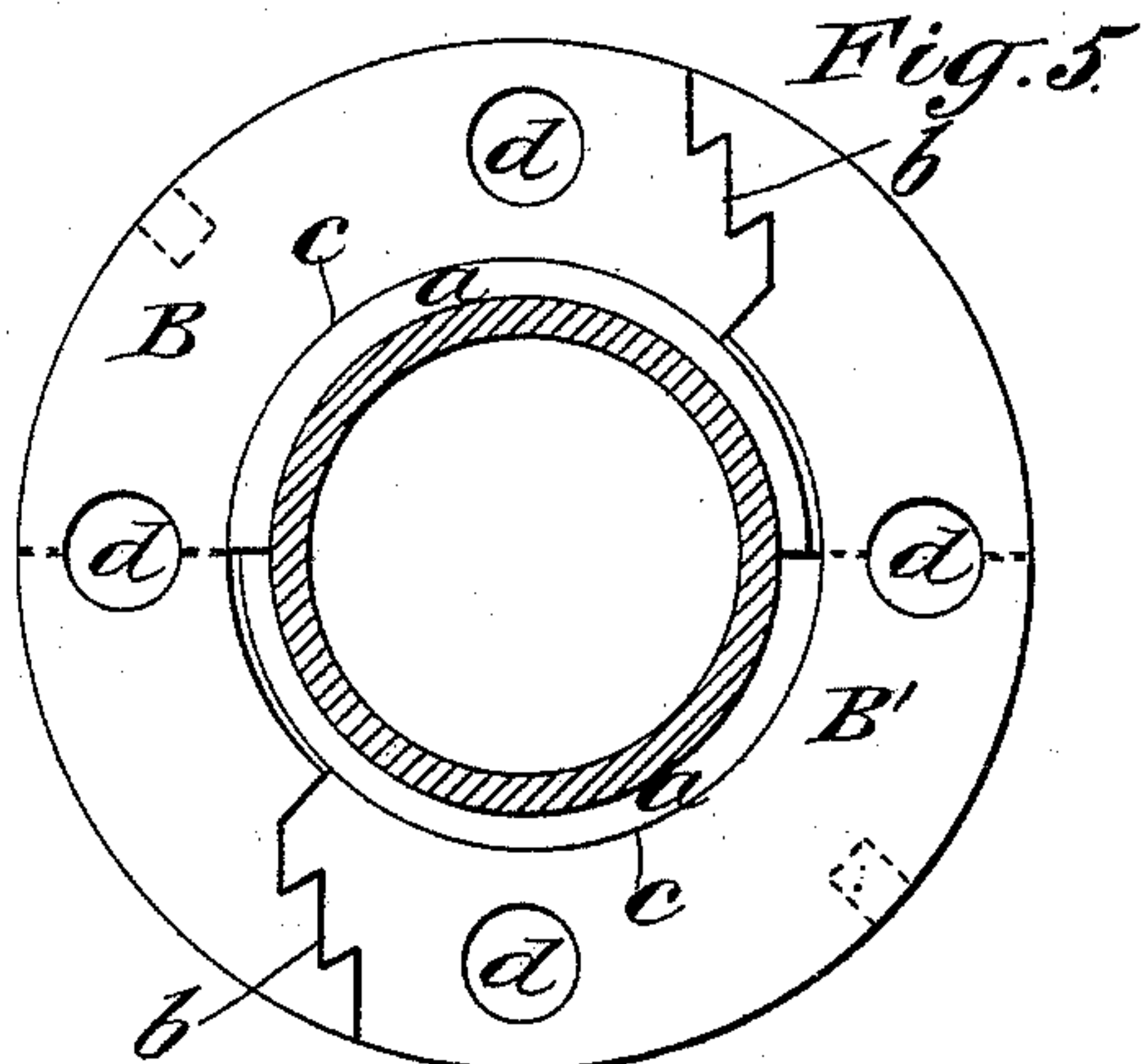
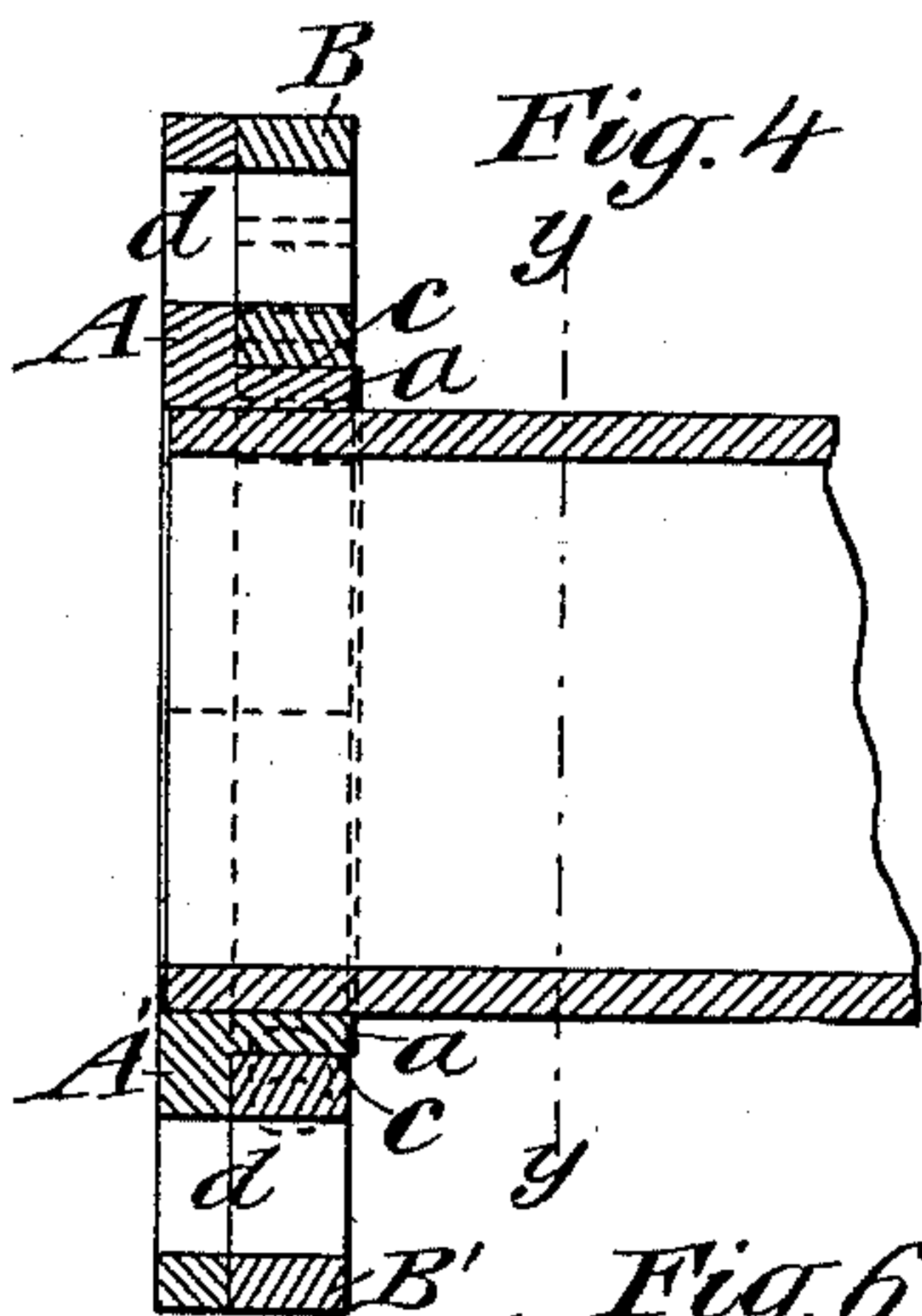
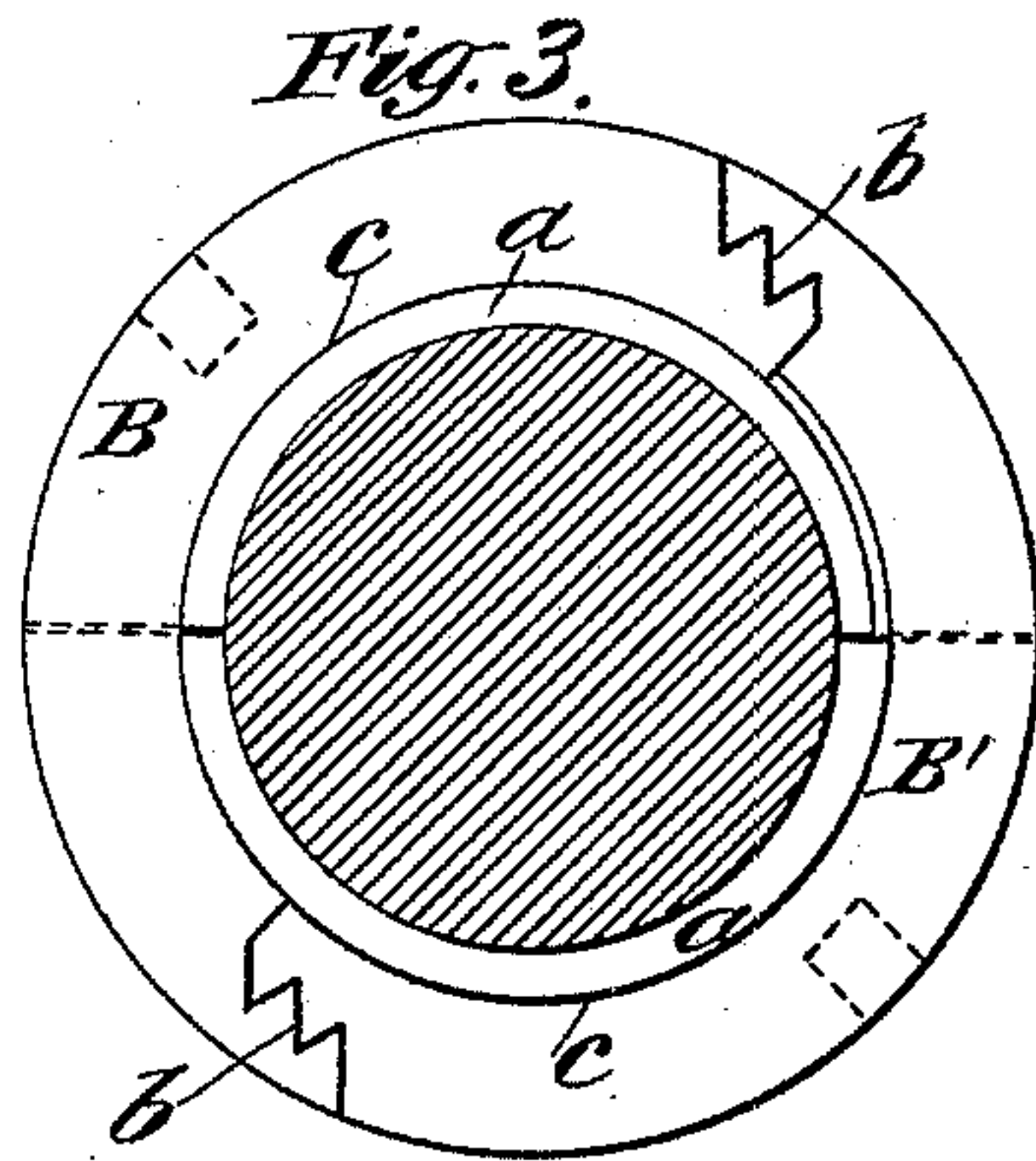
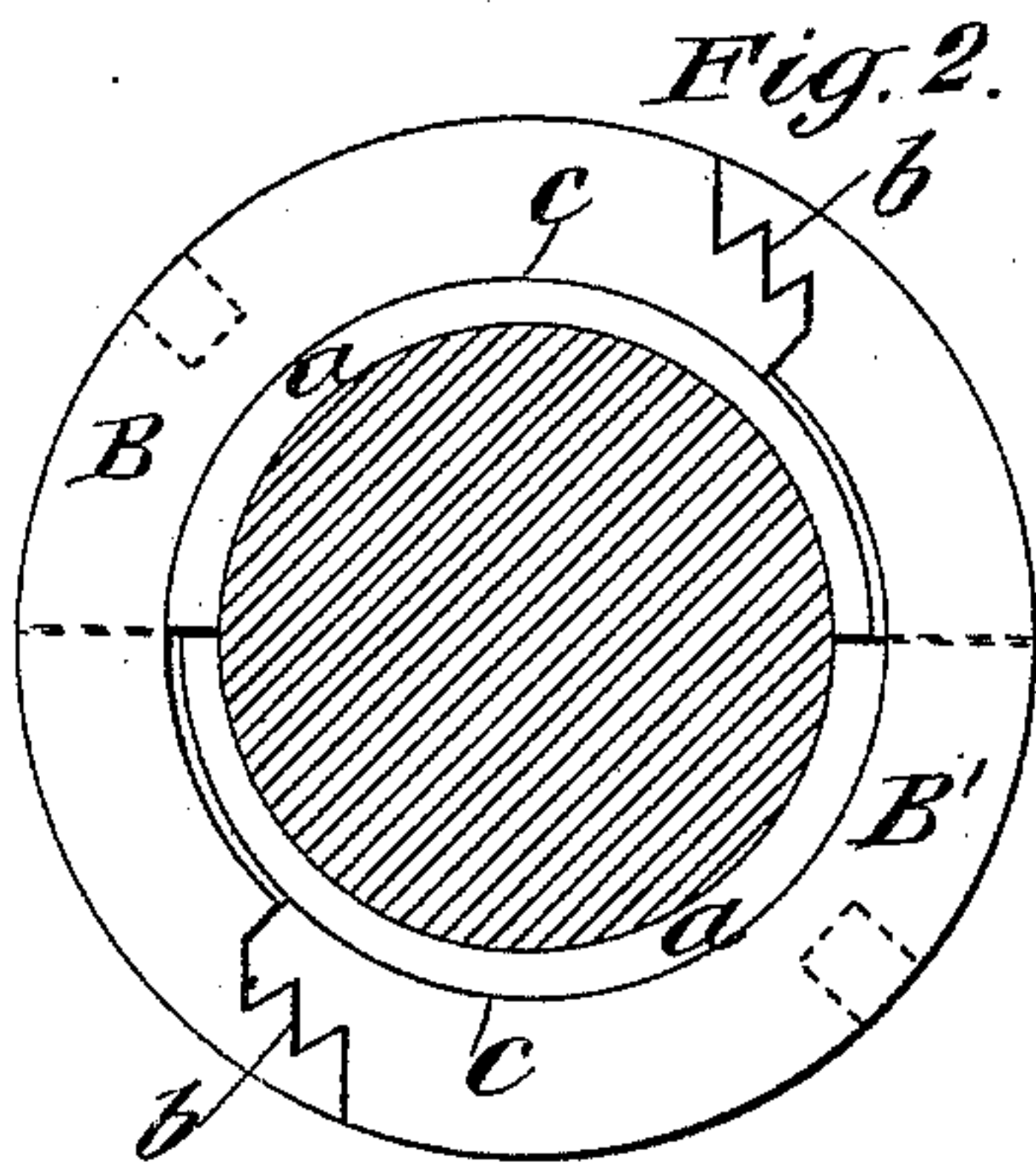
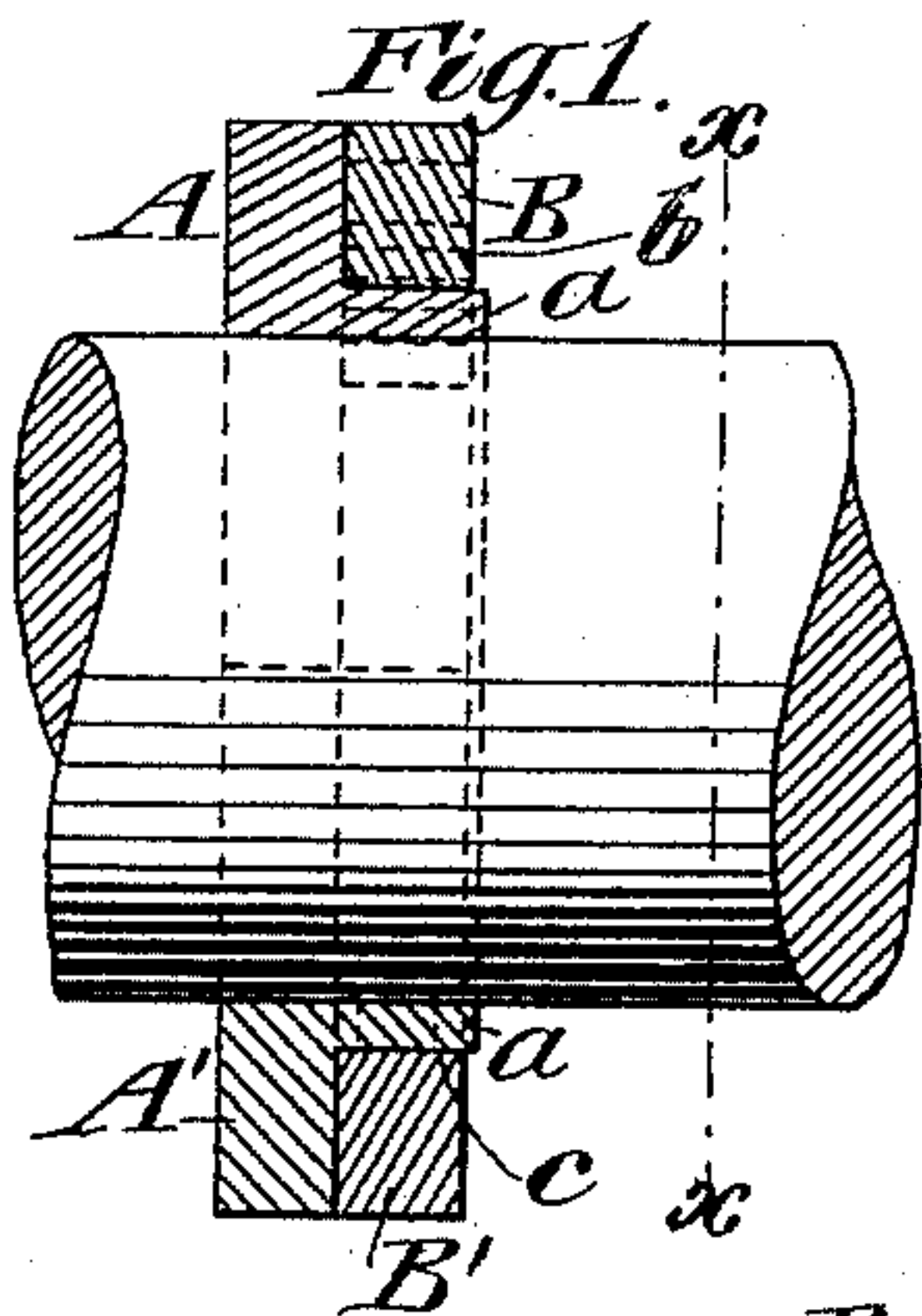
(No Model.)

2 Sheets—Sheet 1.

R. KING.
SPLIT RING FOR CYLINDRICAL BODIES.

No. 436,357.

Patented Sept. 16, 1890.



Witnesses:

Olundgren
R. H. Hayworth

Inventor:
Robert King
by his attorneys
Brown Griswold

(No Model.)

2 Sheets—Sheet 2.

R. KING.

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Fig. 10.

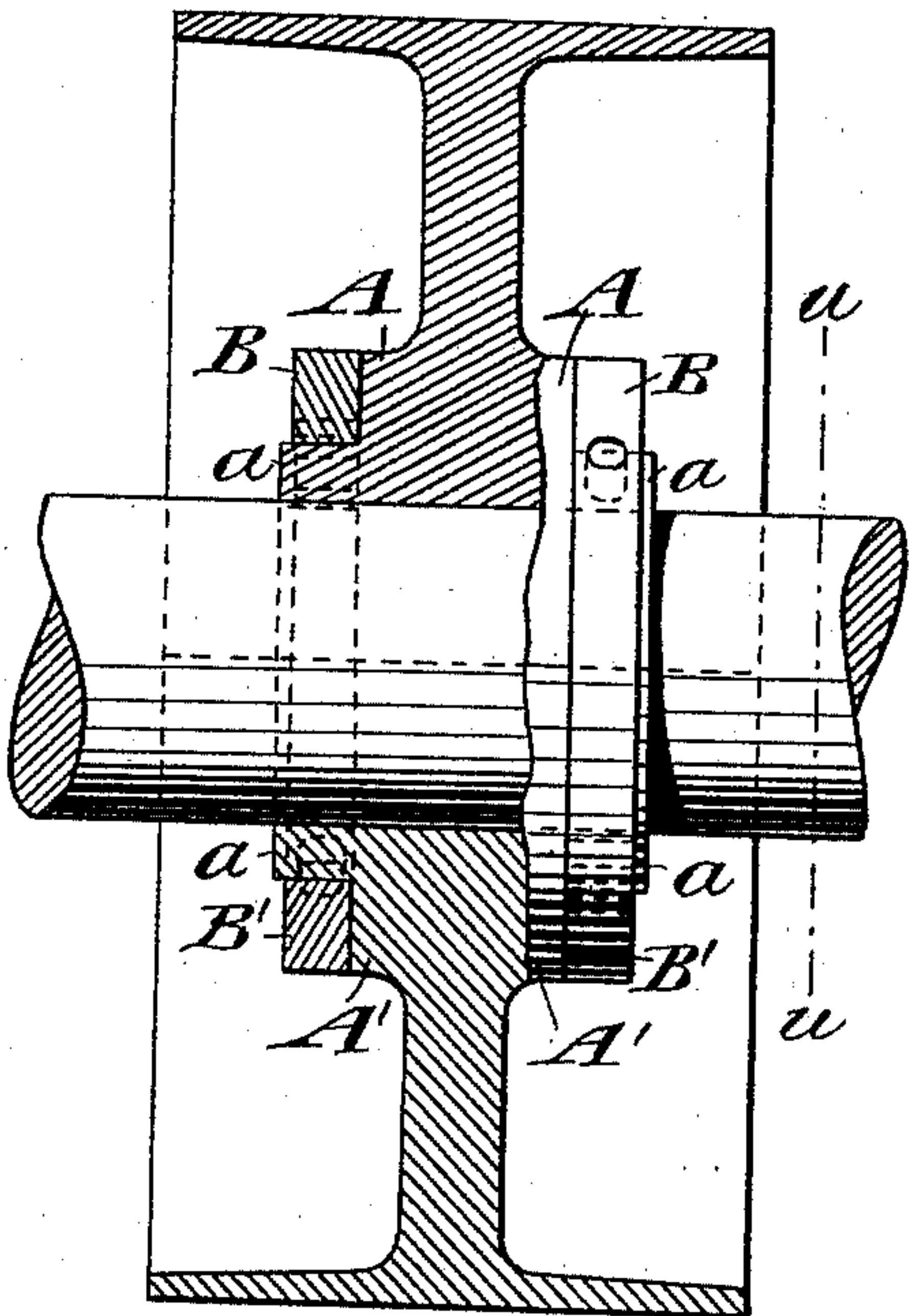


Fig. 11.

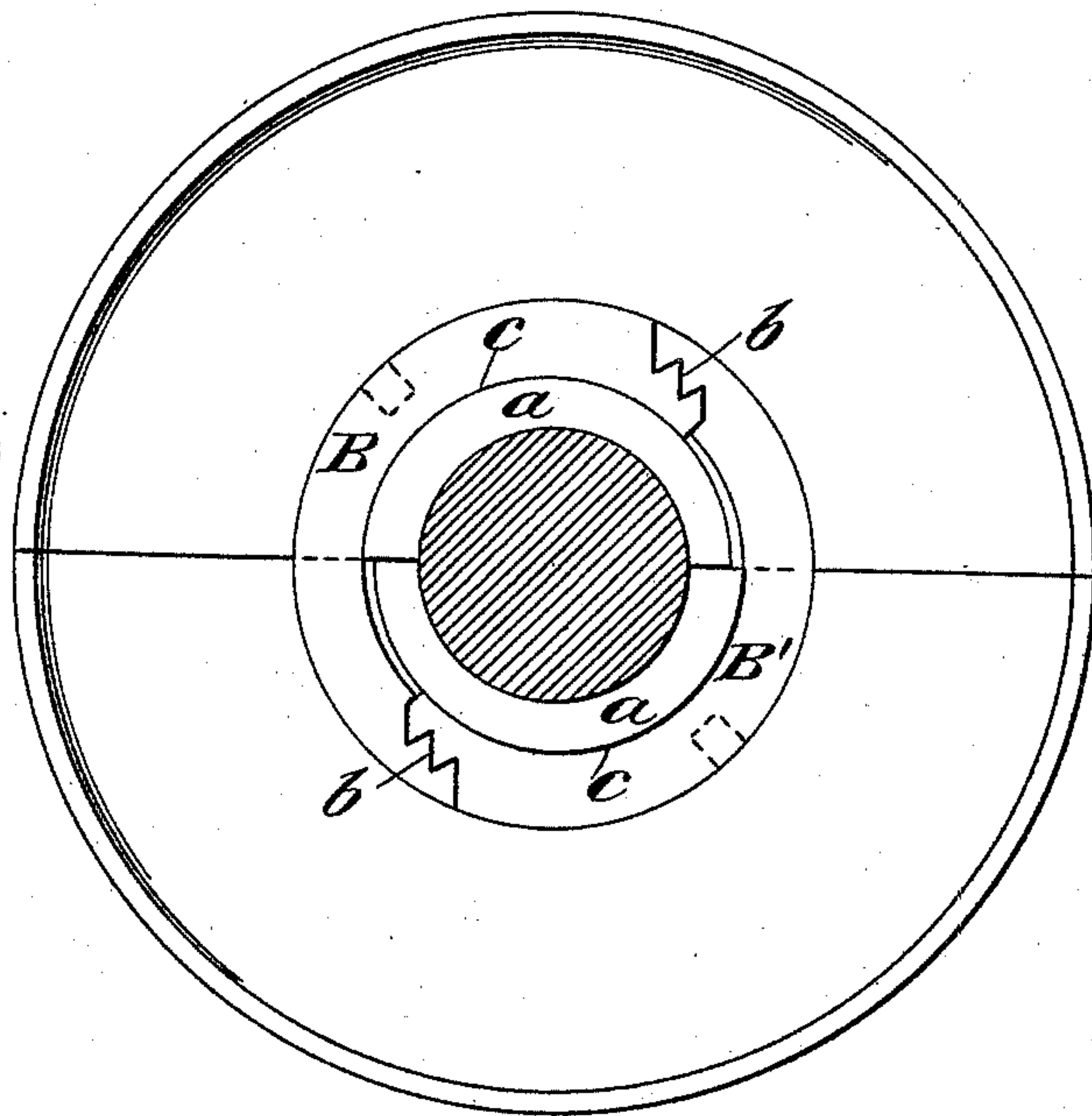


Fig. 12.

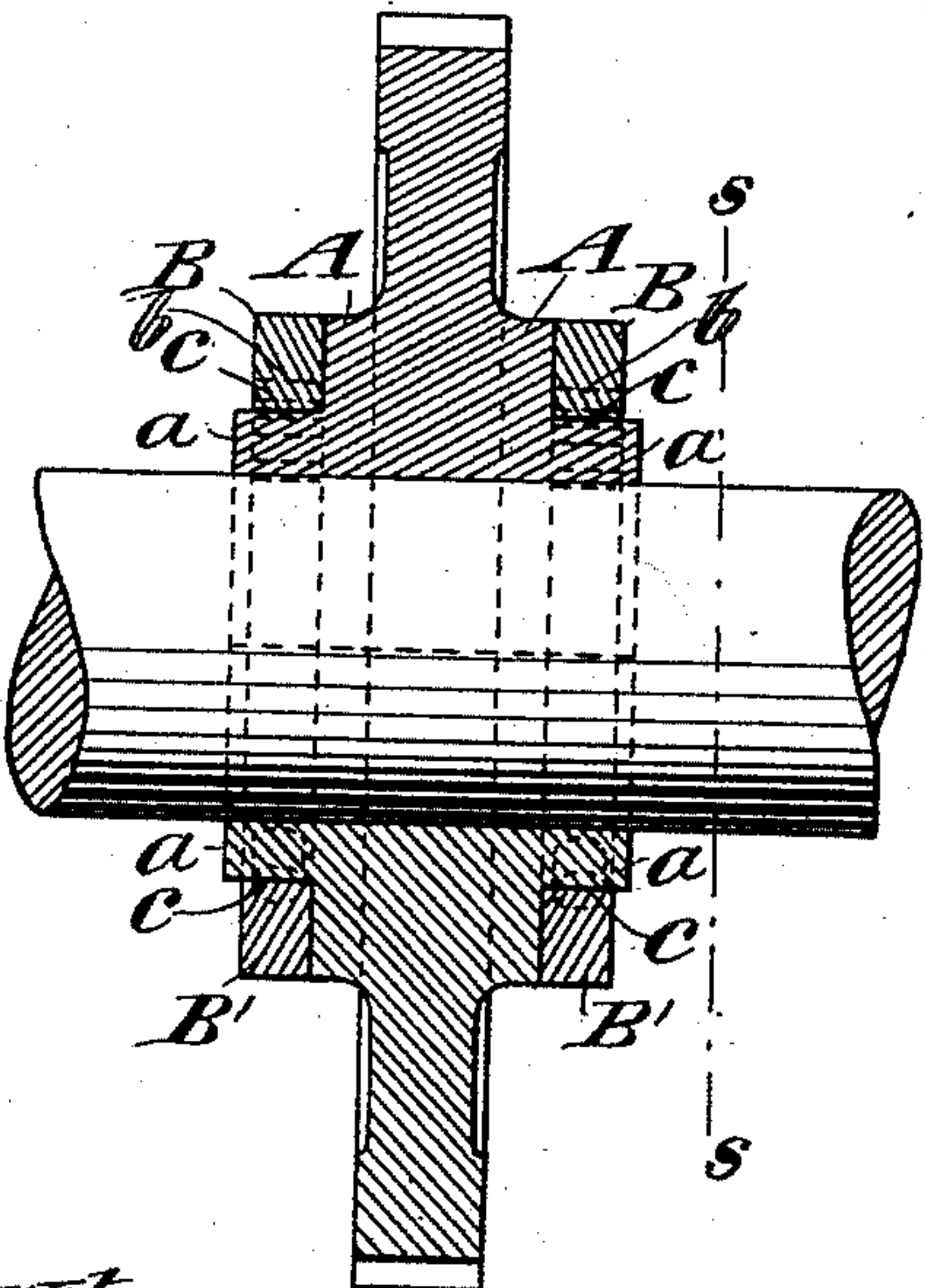
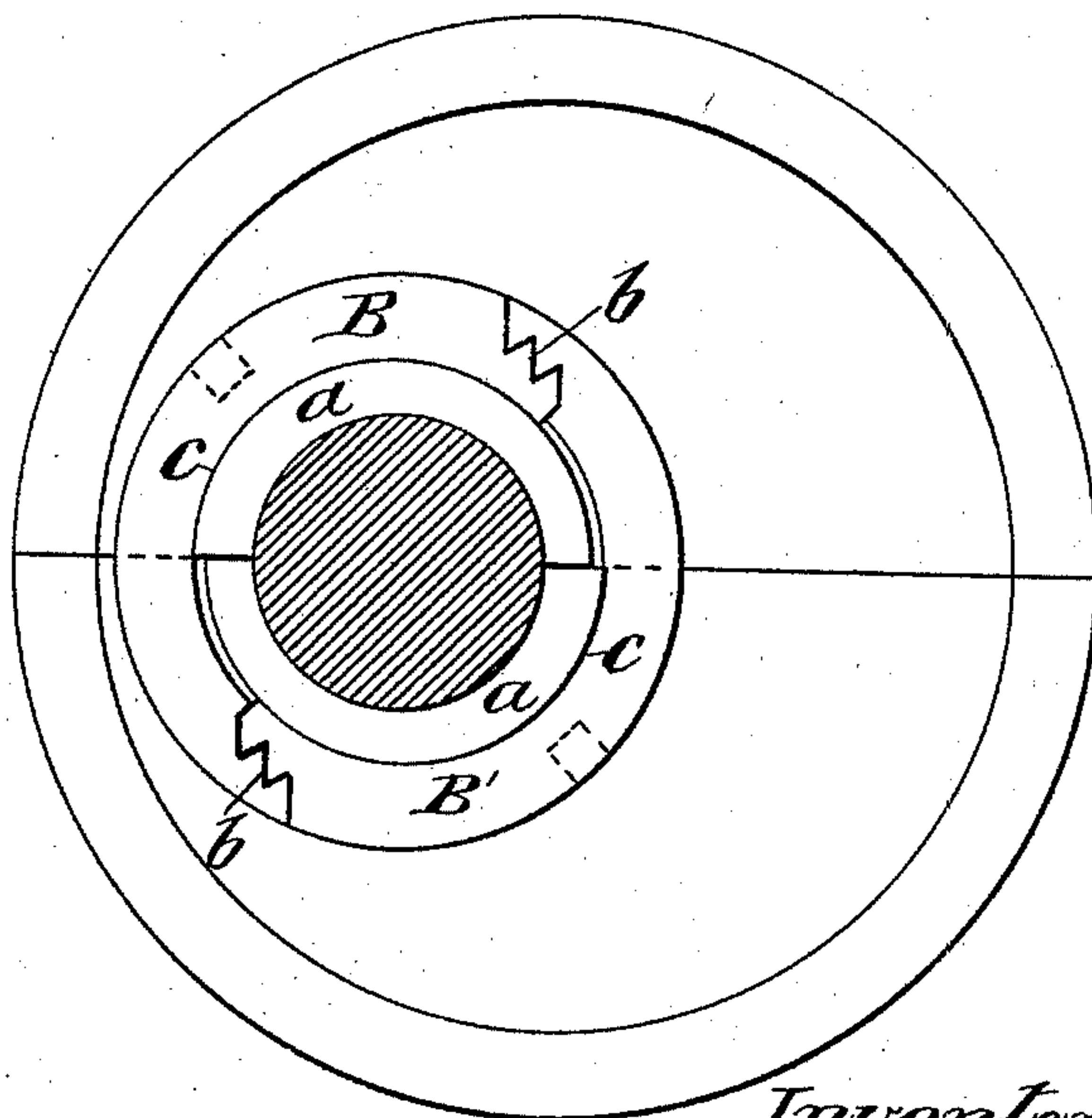


Fig. 13.



Witnesses:

Olundgren
D. H. Hayward

Inventor:

Robert King
by his attorneys
Brown Griswold

UNITED STATES PATENT OFFICE.

ROBERT KING, OF BROOKLYN, NEW YORK.

SPLIT RING FOR CYLINDRICAL BODIES.

SPECIFICATION forming part of Letters Patent No. 436,357, dated September 16, 1890.

Application filed December 10, 1889. Serial No. 333,268. (No model.)

To all whom it may concern:

Be it known that I, ROBERT KING, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful
5 Improvement in Split Rings for Cylindrical Bodies, of which the following is a specification.

My improvement relates to means whereby rings may be applied to shafting, tubes, hubs,
10 and other similar cylindrical bodies where it would be impracticable to pass said rings over the end or ends of the shafting, tubes, &c.

In carrying out my improvement I employ two so-called "split rings," each having a portion or portions which are volute or eccentric
15 to volute or eccentric portions upon the other. These rings, when rotated one upon the other in a manner to be more fully described, will grip the cylindrical body about which they
20 are placed with a firm grip.

I will describe my improvement in detail, and then point out the novel features in a claim.

In the accompanying drawings, Figure 1 is
25 a vertical section of a ring embodying my improvement, showing the same arranged upon a portion of a shaft. Fig. 2 is a vertical section of the shaft shown in Fig. 1, taken on the line *x x*, same figure. Fig. 3 is a view similar
30 to Fig. 2, but showing a slight modification. Fig. 4 is a vertical section of a pipe and a ring embodying my improvement, showing how the same may be employed as the flange upon a pipe. Fig. 5 is a section of the same,
35 taken on the line *y y*, Fig. 4. Fig. 6 is a view similar to Fig. 4, but showing how my improvement may be employed to stop leak in a pipe. Fig. 7 is a view similar to Fig. 5,
40 taken on the line *z z*, Fig. 6. Fig. 8 is a vertical section of a nut embodying my improvement, showing the same applied to a screw. Fig. 9 is a vertical section of the same, shown as taken on the line *w w*, Fig. 8. Fig. 10 is a view in vertical section and partly broken
45 away, showing how my improvement may be applied to the hub of a split pulley to secure the same upon the shaft. Fig. 11 is a vertical section of the same, taken on the line *u u*, Fig. 10. Fig. 12 is a vertical section illustrating how my improvement may be employed in conjunction with a split eccentric
50 to secure the same upon the shaft. Fig. 13 is

a vertical section of the same, taken on the line *s s*, Fig. 12.

Similar letters of reference designate corresponding parts in all the figures.

In the example of my improvement shown in Figs. 1 and 2, I employ a split ring *A A'*. Each of the portions *A A'* of this ring is provided with a flange *a*, which flanges are
60 externally volute or eccentric. These eccentric portions extend in the same direction when the two portions are brought together, the greatest extension of one of said volute or eccentric portions being at the portion of
65 least extension of the other volute or eccentric. Over the flange portion *a* or, in other words, over the volute or eccentric portions is slipped a ring *B B'* after the ring *A A'* has been placed about the pipe or other cylindrical
70 body. The ends of the portions *B B'* of the ring interlock, as herein shown, by means of engaging teeth *b*, it being understood that the two portions *B B'* are slid together sidewise, so that the teeth will interlock. Each of the
75 portions *B B'* is provided upon its inner edge with a volute or eccentric portion *c*, which volute or eccentric portion extends in a reverse direction to the volute or eccentric portion in the ring *A A'*.
80

It will be readily seen that when all the parts are brought together and the portions *B B'* are rotated all the volute or eccentric portions will be caused to act upon each other. The portions *A A'* will then be clamped
85 tightly upon the shaft and so held by the portions *B B'*, while at the same time the portions *B B'* are firmly interlocked by the force tending to spread them apart.

In the example of my improvement shown
90 in Fig. 3, instead of providing each of the portions *A A' B B'* with different volute or eccentric portions, I have shown the volute or eccentric portions as continuous. Of course the result in this case would be the same.
95

Fig. 4 illustrates a flange shown as constructed like the ring shown in Figs. 1 and 2, but which of course may be like that shown in Fig. 3. This flange is provided with bolt-holes *d* and may be secured, in the manner
100 described, upon the end of a pipe.

In Figs. 6 and 7 are shown an eccentric ring *A*, which may be of soft metal and split, as described. The portions *B B'* of the other

ring may be slipped over this example of the ring A, and the latter, when compressed about the pipe by the rotation of the portions B B', will operate to close a leak *e* in the pipe.

5 In Figs. 8 and 9 are shown a nut constructed to operate like the examples previously described, except that it is internally screw-threaded and engages a screw.

10 In Figs. 10 and 11 I have shown the ring as applied to the hub of a split pulley. In this example I have shown two rings in use—one upon each side of the split pulley. The portions of the hub upon the pulley constitute, in effect, the portions A A' thereof, being provided with the eccentric flanges previously described, over which the portions B B' of the ring are passed and secured.

20 In Figs. 12 and 13 is shown an arrangement similar to that shown in Figs. 10 and 11, except that the improvement is applied to a split eccentric.

25 In all cases it will be observed that my improved ring may be placed upon a shaft or other cylindrical body without being passed over the end of said shaft or cylindrical body, and has as so applied to the shaft or other cylin-

drical body a smooth exterior, presenting no projection which might catch into clothing or belting.

Of course there are numerous other uses to which my improvement may be applied which will present themselves to the mind of any person skilled in the art, and I do not wish to be limited to only the uses which I have shown and described.

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

A ring composed of two cylindric parts, one arranged within the other, each being split, and the split portions of the outer part being adapted to interlock, one of said parts being provided with a volute or eccentric surface externally and the other with a volute or eccentric surface internally, so that the outer part when rotated about the inner part will operate to secure the inner part to a cylindric body and to automatically bind itself securely upon the inner part, substantially as specified.

ROBERT KING.

Witnesses:

FREDK. HAYNES,
D. H. HAYWOOD.