

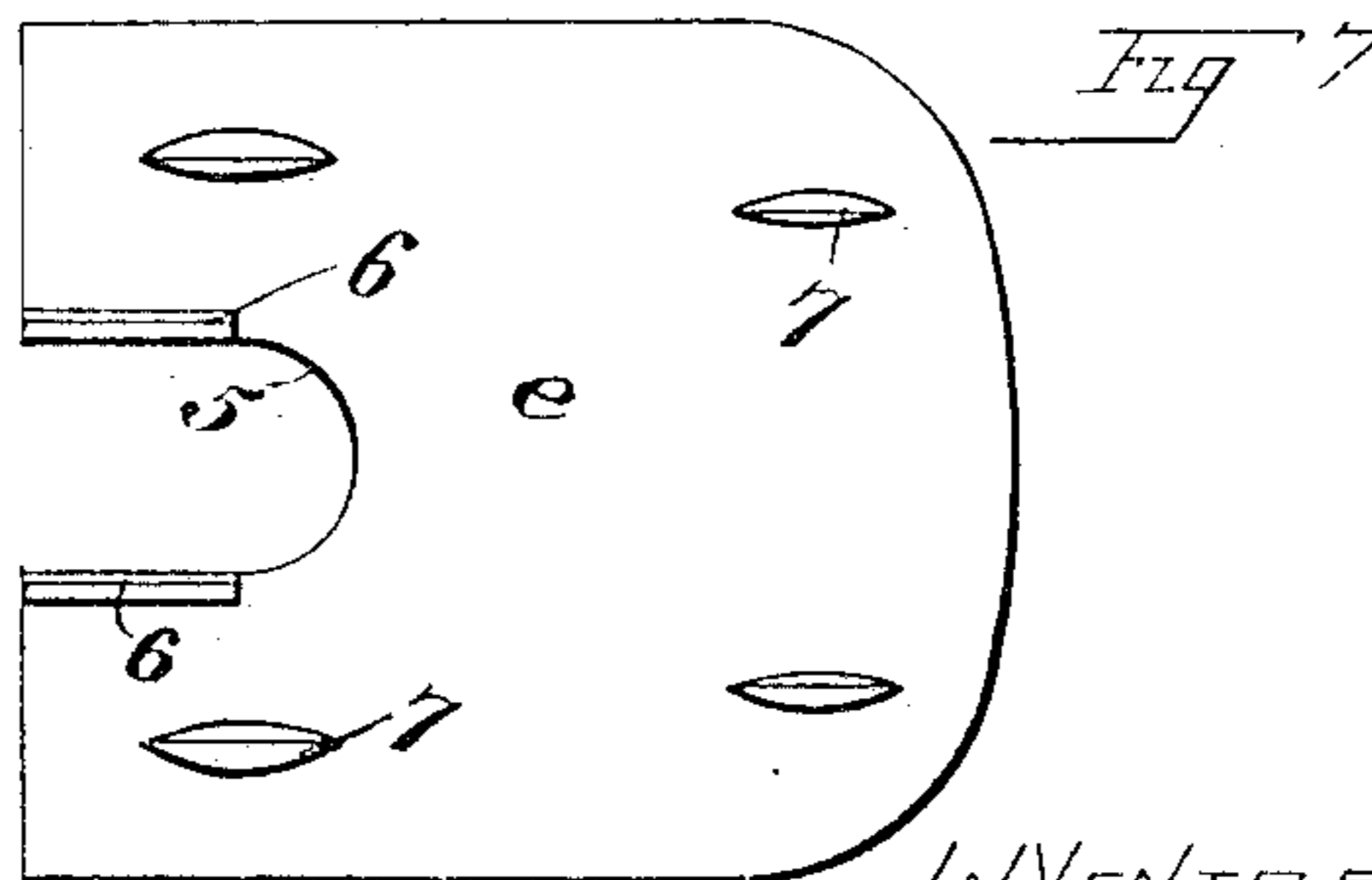
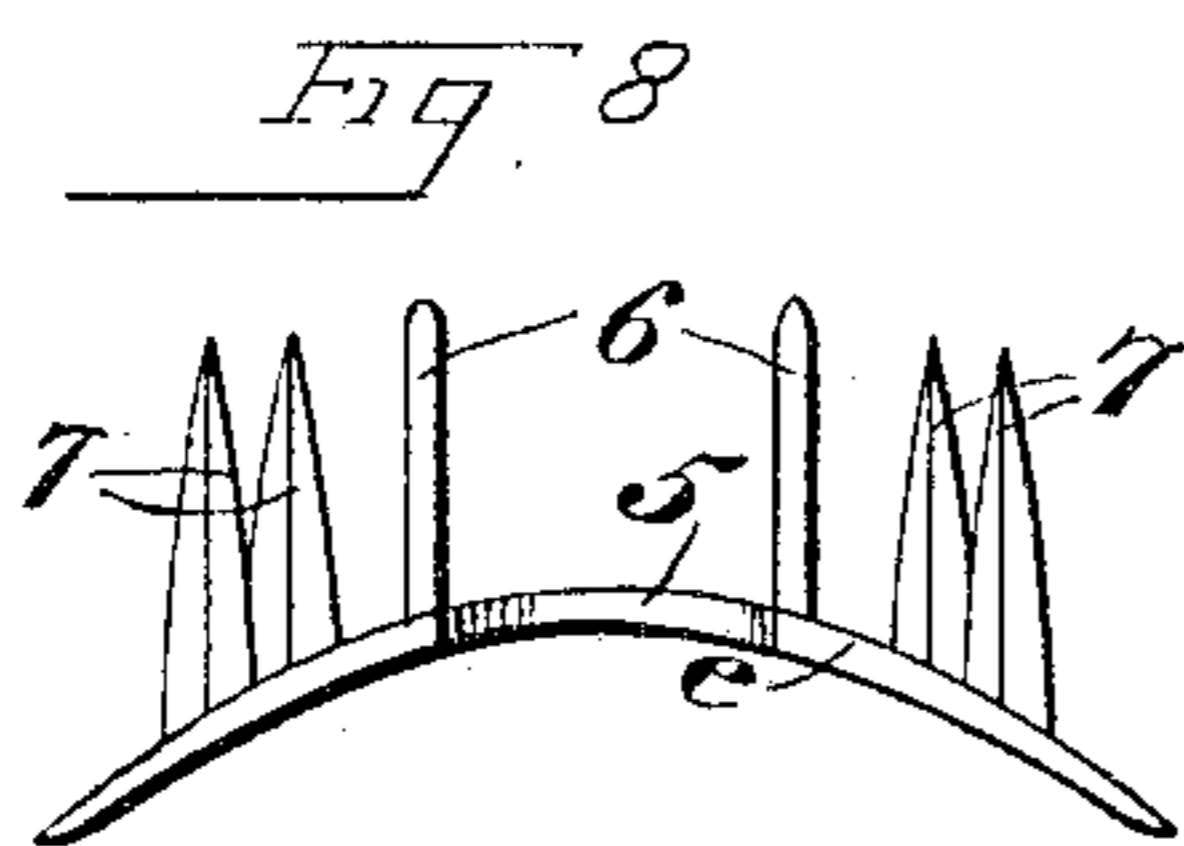
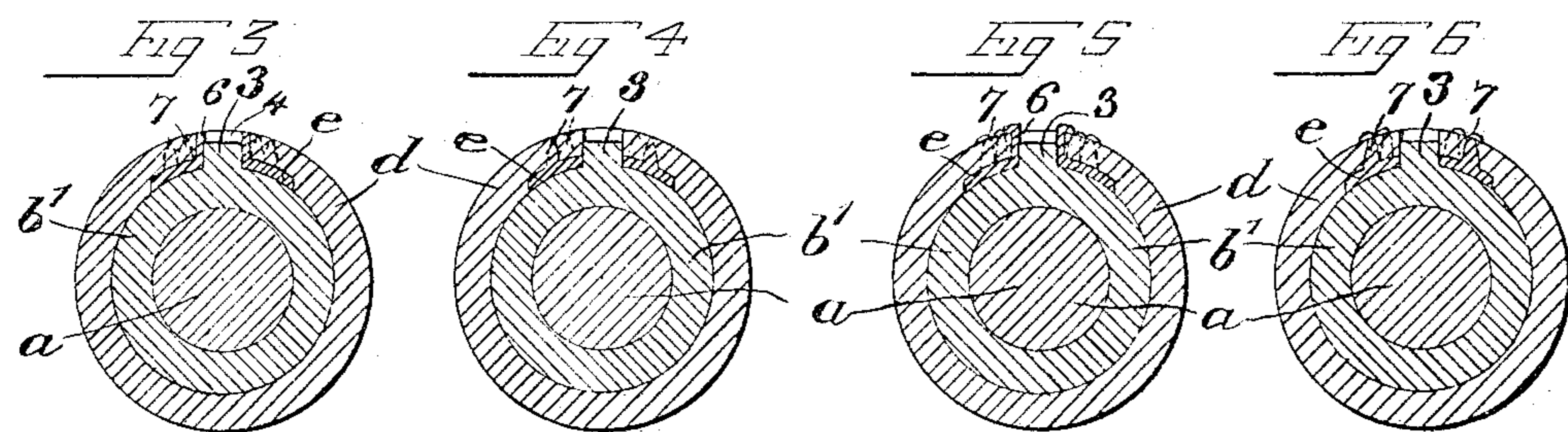
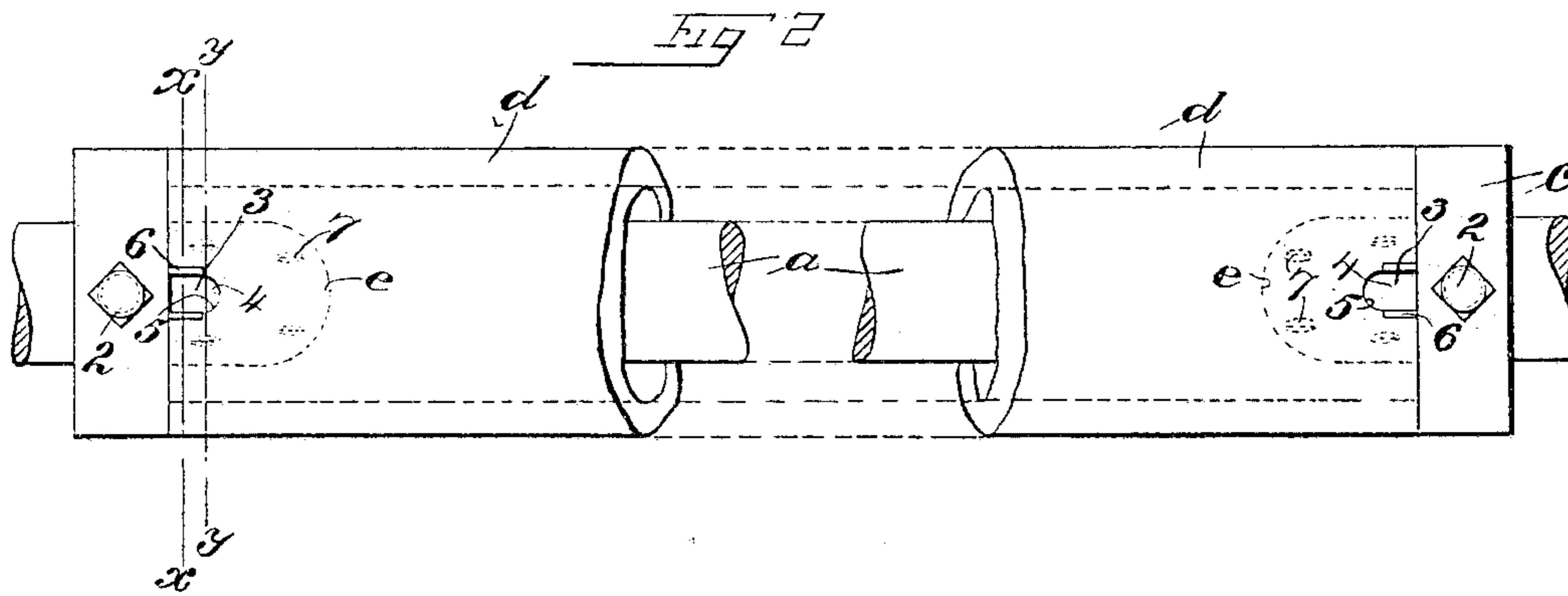
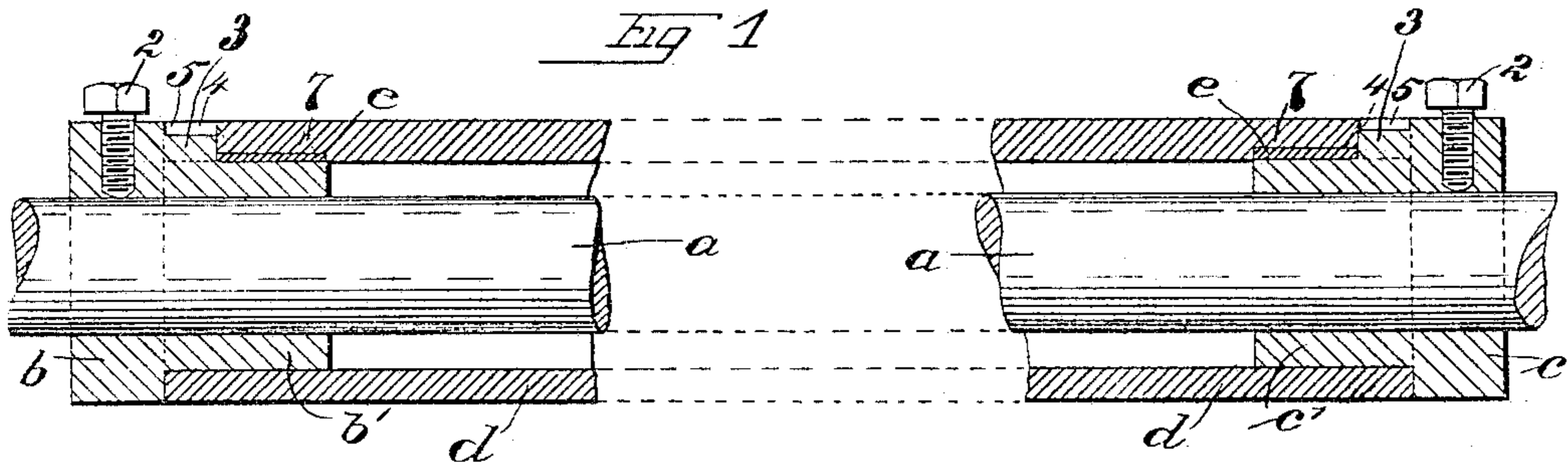
No. 801,576.

PATENTED OCT. 10, 1905.

T. ELIXMAN, J. T. CUNNINGHAM & G. F. SHEVLIN.

CORE FOR PAPER ROLLS.

APPLICATION FILED JULY 1, 1905.



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# UNITED STATES PATENT OFFICE

THEODORE ELIXMAN AND JOHN T. CUNNINGHAM, OF CORINTH, AND  
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## CORE FOR PAPER-ROLLS.

No. 801,576.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed July 1, 1905. Serial No. 268,000.

*To all whom it may concern:*

Be it known that we, THEODORE ELIXMAN and JOHN T. CUNNINGHAM, residing at Corinth, and GEORGE F. SHEVLIN, residing at Saratoga Springs, in the county of Saratoga and State of New York, all citizens of the United States of America, have invented an Improvement in Cores for Paper-Rolls, of which the following is a specification.

10 Paper for periodicals, newspapers, and for various other uses is commonly wound upon and unwound from tubular cores. The cores at their ends are provided with notches which both in the winding and unwinding of the  
15 paper are engaged by suitable splines secured in bushings mounted on a shaft which passes through the core and turns the same.

The object of our invention is the provision of a clip or similar device secured to the core  
20 for preventing the wear on the notches in the ends of the core, and the same is an improvement on the device shown and described in Letters Patent No. 759,085, granted us May 3, 1904, for a core for paper-rolls.

25 In carrying out our present invention we provide a clip comprising a body-plate corresponding in curvature with that of the core recessed to receive the spline of the bushing and provided with lugs to engage the faces of  
30 said spline and also provided with a plurality of spurs projecting from the convex surface thereof. The clip is preferably adapted to fit within a recess in the inner surface of the core with the lugs in contact with the edges  
35 of the notch in the end of the core, and the spurs of the clip pass up into the core-body in such a manner that the concave surface of the clip is flush with that of the interior face of the core, and so is adapted to bear against  
40 the reduced end of the bushing which passes into the end of the core.

In the drawings, Figure 1 is a broken longitudinal section and partial elevation representing our improvement. Fig. 2 is a plan  
45 of the same. Fig. 3 is a section on line *xx*, Fig. 2. Fig. 4 is a section on line *yy*, Fig. 2. Figs. 5 and 6 are views similar to Figs. 3 and 4, respectively, showing a modified form of clip. Fig. 7 is a plan of our improved clip,  
50 on an enlarged scale; and Fig. 8 is a front end elevation of the same.

*a* designates a shaft, which may be the shaft upon which the paper-roll is to be wound or unwound, and *b c* are bushings having reduced

portions *b' c'*, adapted to enter the ends of 55 the core *d* and upon which the same is mounted both in winding and unwinding the paper-roll, the bushings *b c* being secured on the shaft *a* in the necessary positions by means of set-screws 2 or otherwise, as desired. The  
60 reduced portions *b' c'* of the bushings *b c* are provided with splines 3, and the ends of the core *d* are provided with notches 4. We employ clips, preferably made of suitable metal, and each clip comprises a curved body-plate *e*,  
65 corresponding in curvature with the core and having a notch 5 corresponding in outline with the notches in the end of the core, lugs 6, preferably parallel with each other and extending up at right angles to the plate *e* and from  
70 the opposite edges of the said notch 5 in each clip, and spurs 7 projecting from the convex surface of the clip. Each clip is adapted to fit within a curved recess in the inner surface of the core in such a manner that the outer  
75 faces of the lugs 6 contact with the opposite edges of the notch in the end of the core, and the spurs 7 pass up into the body of the core to hold these parts in their relative positions. The lugs 6 of each clip are so spaced as to re-  
80 ceive one of the splines 3, the faces of the spline contacting with the inner faces of the lugs, whereby the wear on these parts which would otherwise come upon the edges of the notch in the core comes upon the lugs 6. 85

As shown in Figs. 5 and 6, both the lugs 6 and the spurs 7 may be of sufficient length to extend through beyond the outer surface of the core when the clips are in position, in which instance the extremities of these parts  
90 may be turned down upon or into the outer surface of the core, as indicated in these figures.

With the clip structure hereinbefore described there can be no unevenness due to the  
95 clip in the outer surface of the core to interfere in any way with the proper winding of the paper, which, with its simple structure and ready application, has proved to be an improvement on the clip shown and described in  
100 our patent aforesaid.

We claim as our invention—

1. The combination with the core of a paper-roll having at least one end notch and an adjacent end recess in the inner surface of the  
105 core, of a clip comprising a curved body-plate adapted to fit said recess and having a notch conforming to the notch of the core and means

for permanently connecting the clip to the core.

2. The combination with the core of a paper-roll having at least one end notch and an adjacent end recess in the inner surface of the core, of a clip comprising a curved body-plate adapted to fit said recess and having a notch conforming to the notch of the core, devices at opposite edges of the notch to engage the notch of the core and spurs formed with said curved plate to pass through the core in connecting the clip to the core.

3. The combination with the core of a paper-roll having at least one end notch, of a clip comprising a curved body-plate adapted to fit within said core at one end and to conform to its inner surface, said clip having a notch conforming to the notch of the core, lugs forming parts of the plate and lining the core-notch and spurs also forming parts of said plate and passing into said core to engage the same and hold the clip to the core.

4. As a new article of manufacture, a curved metal clip corresponding in curvature with that of a core of a paper-roll and adapt-

ed to be secured in a recess in the inner surface of the core adjacent to the end thereof and comprising a body-plate having a notch therein, lugs extending from the edges of said notch and adapted to engage the edges of a notch in the end of the core, and spurs integral with and extending from the body portion of the clip and adapted to enter the core to secure the parts in position.

Signed by us this 30th day of May, 1905. 35

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