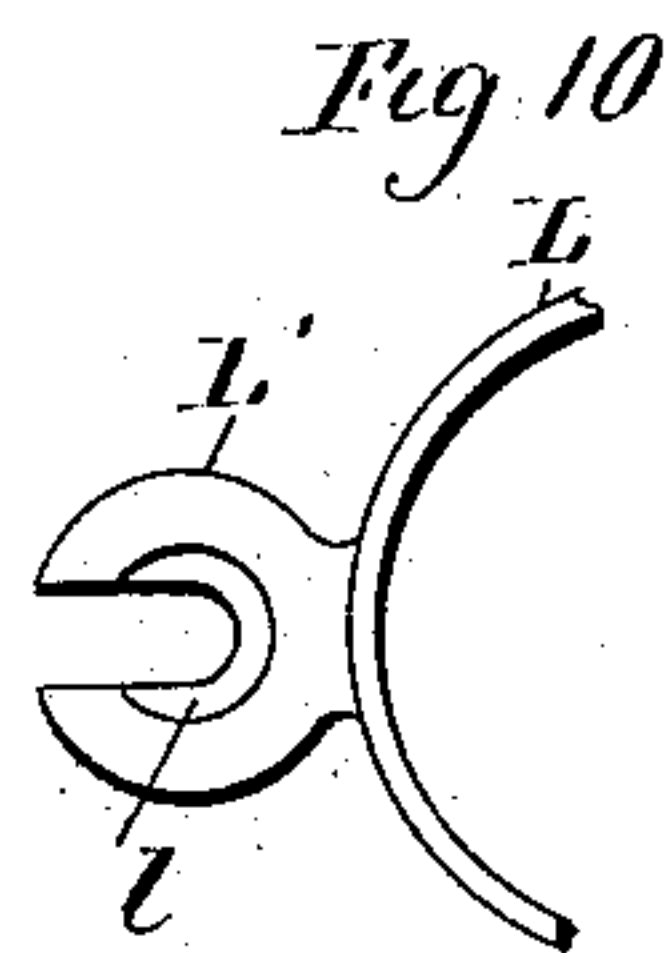
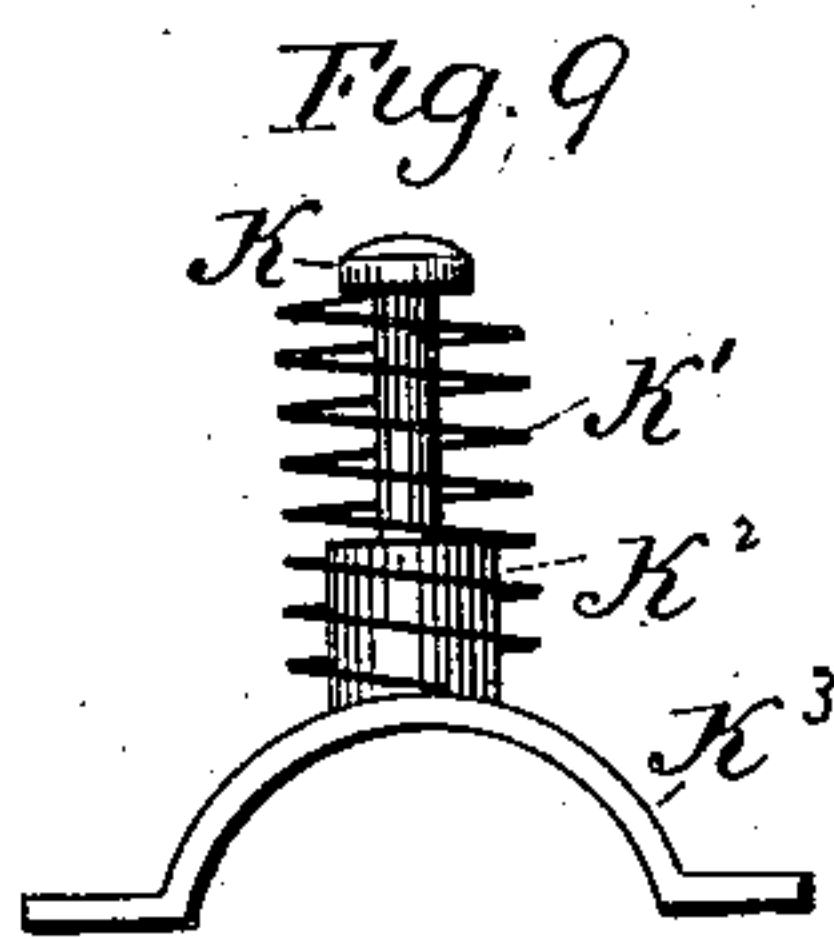
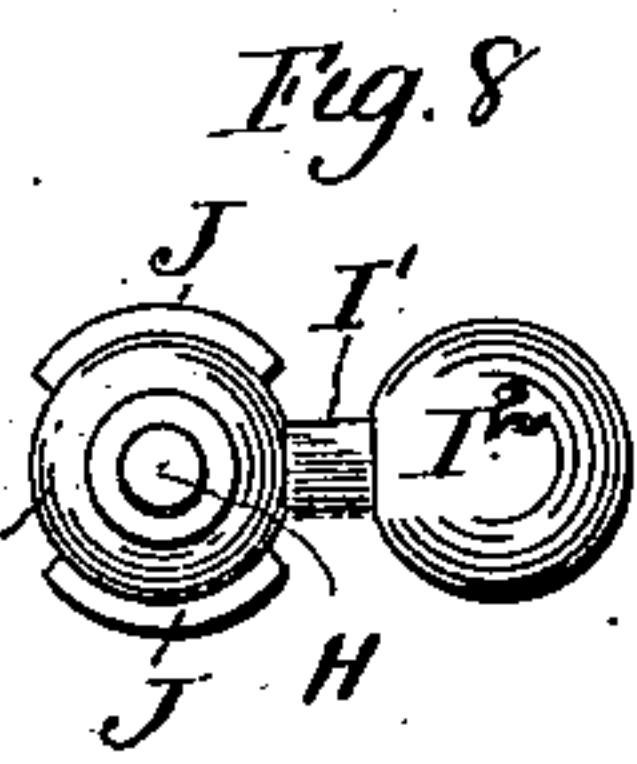
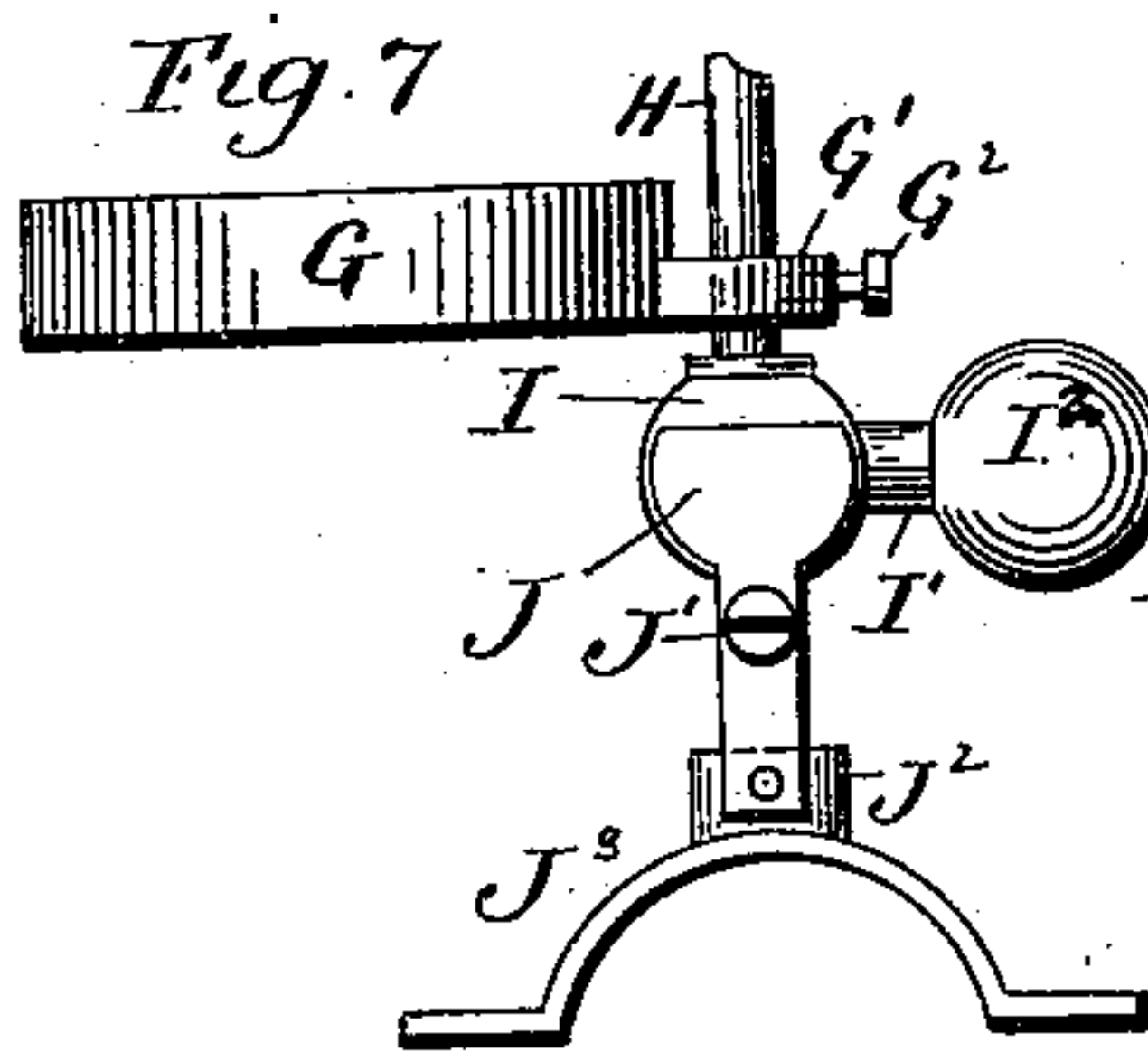
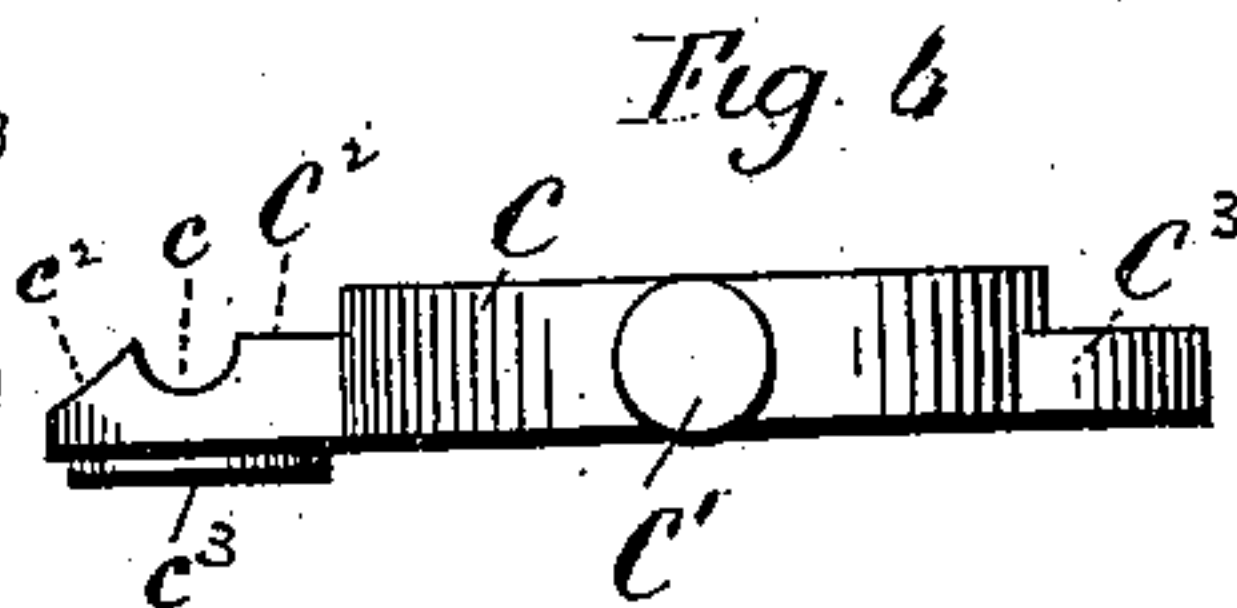
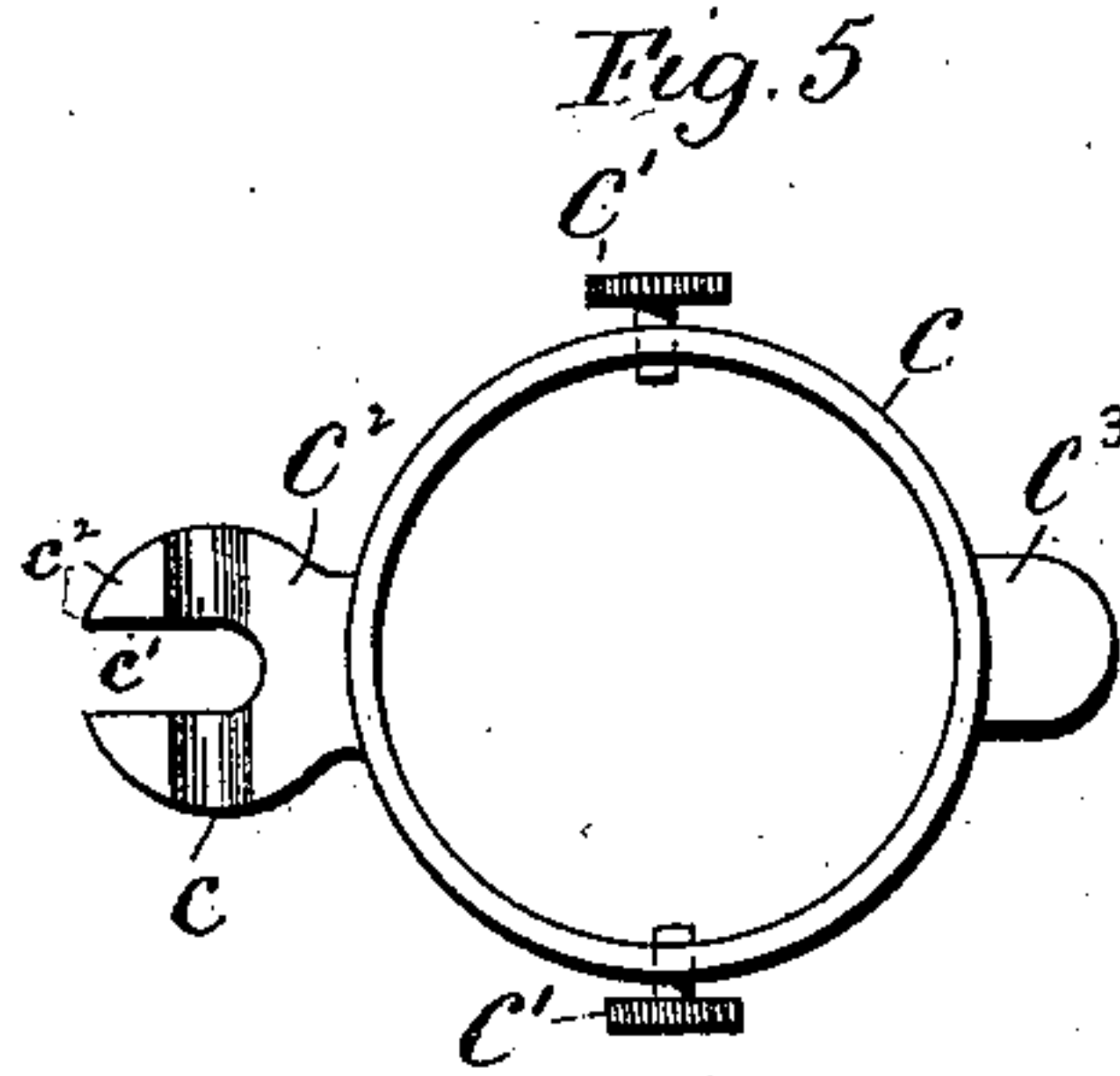
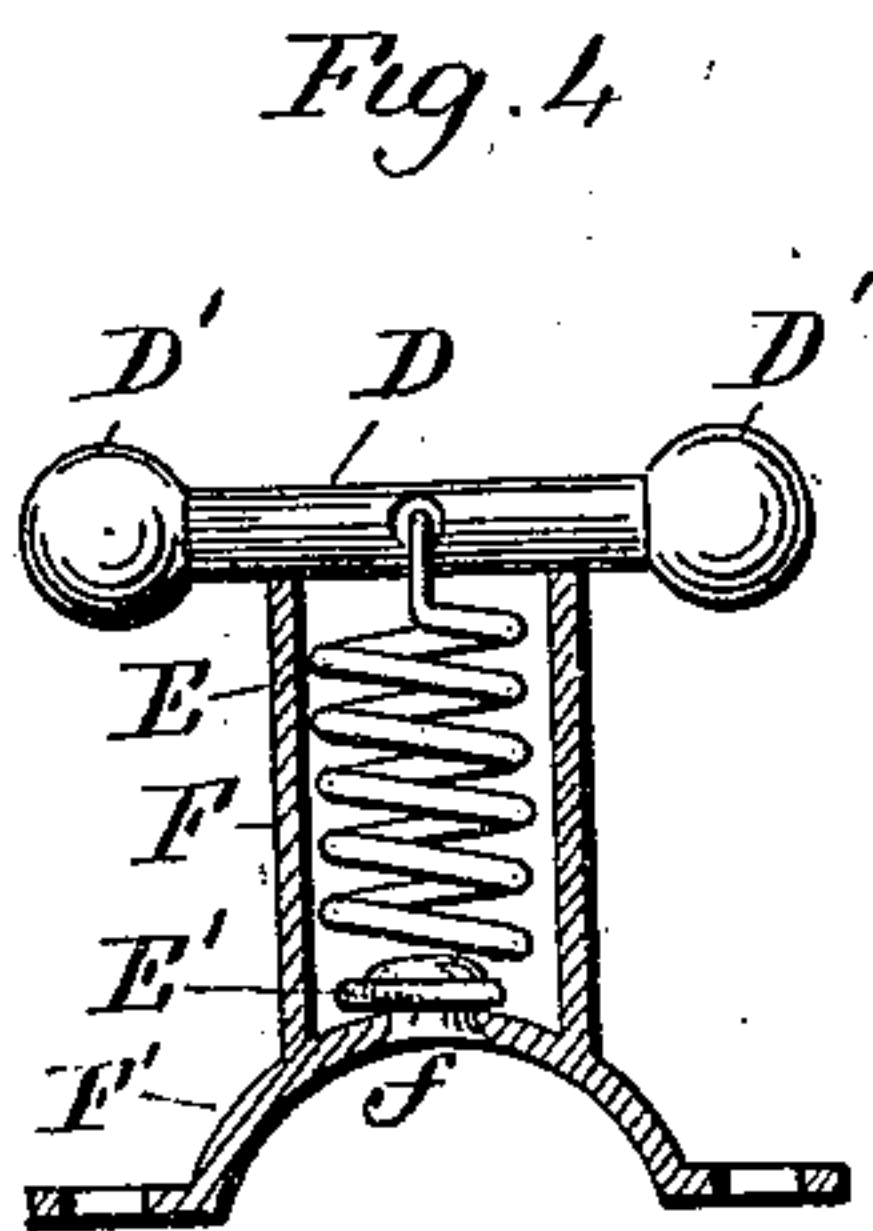
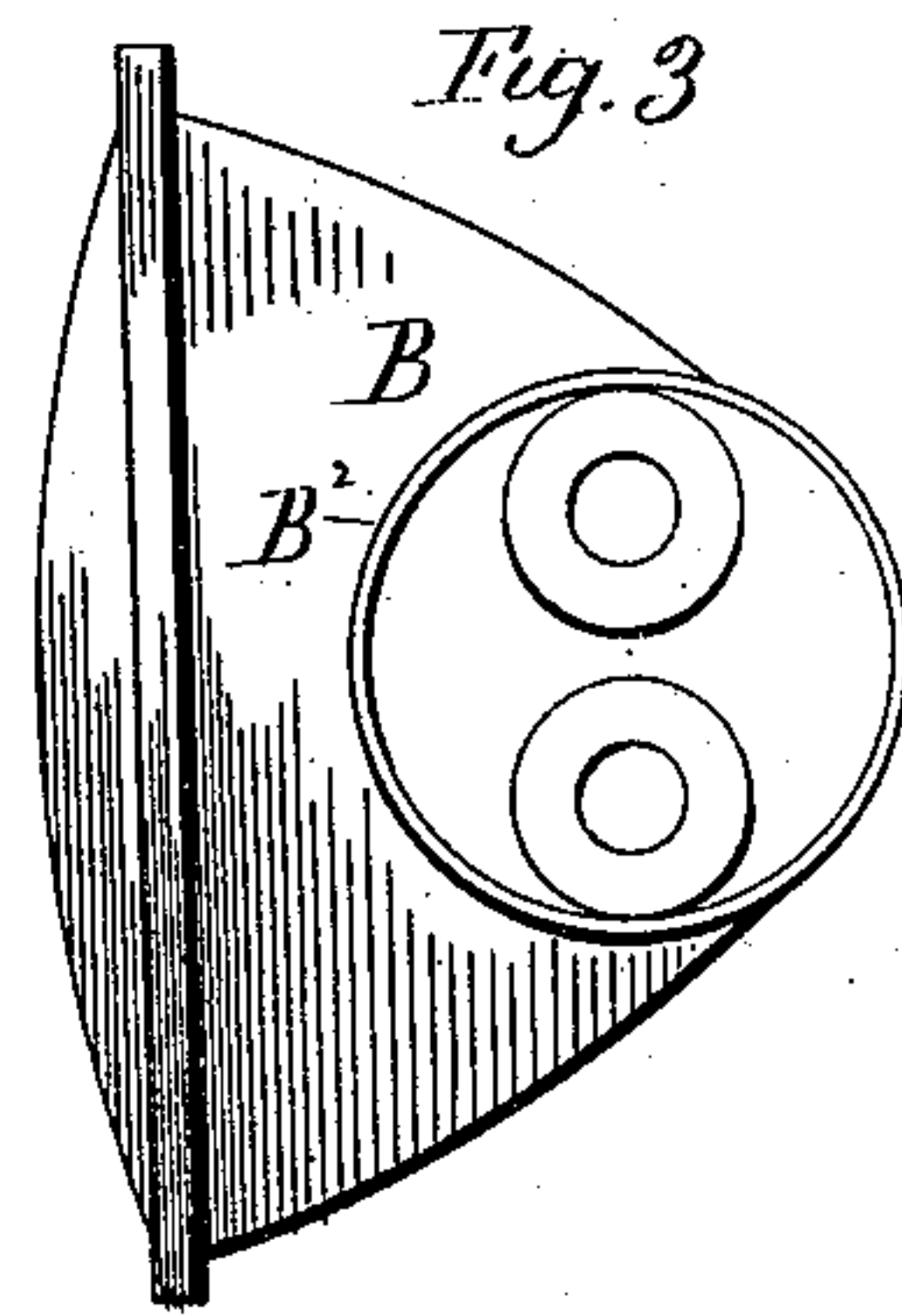
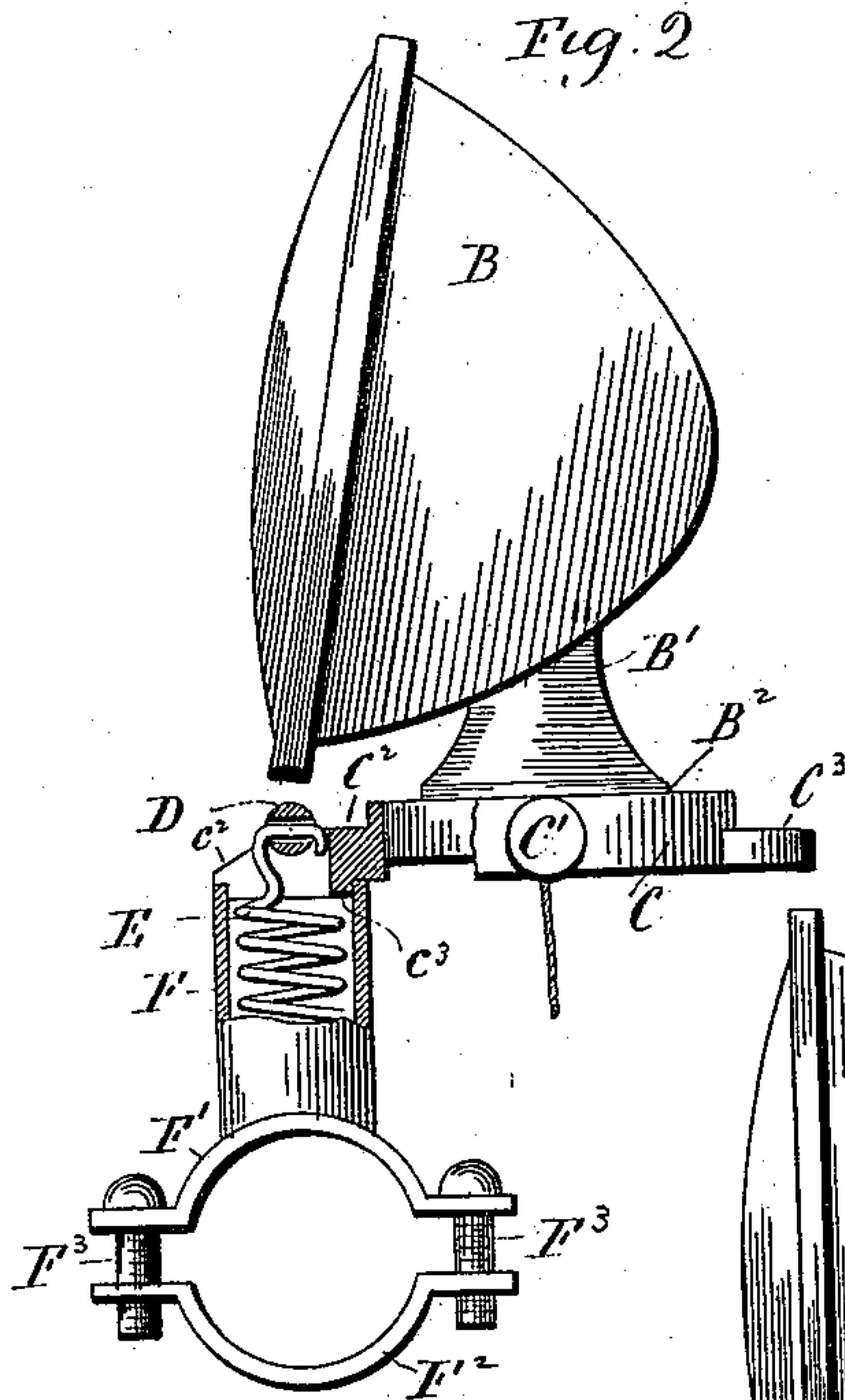
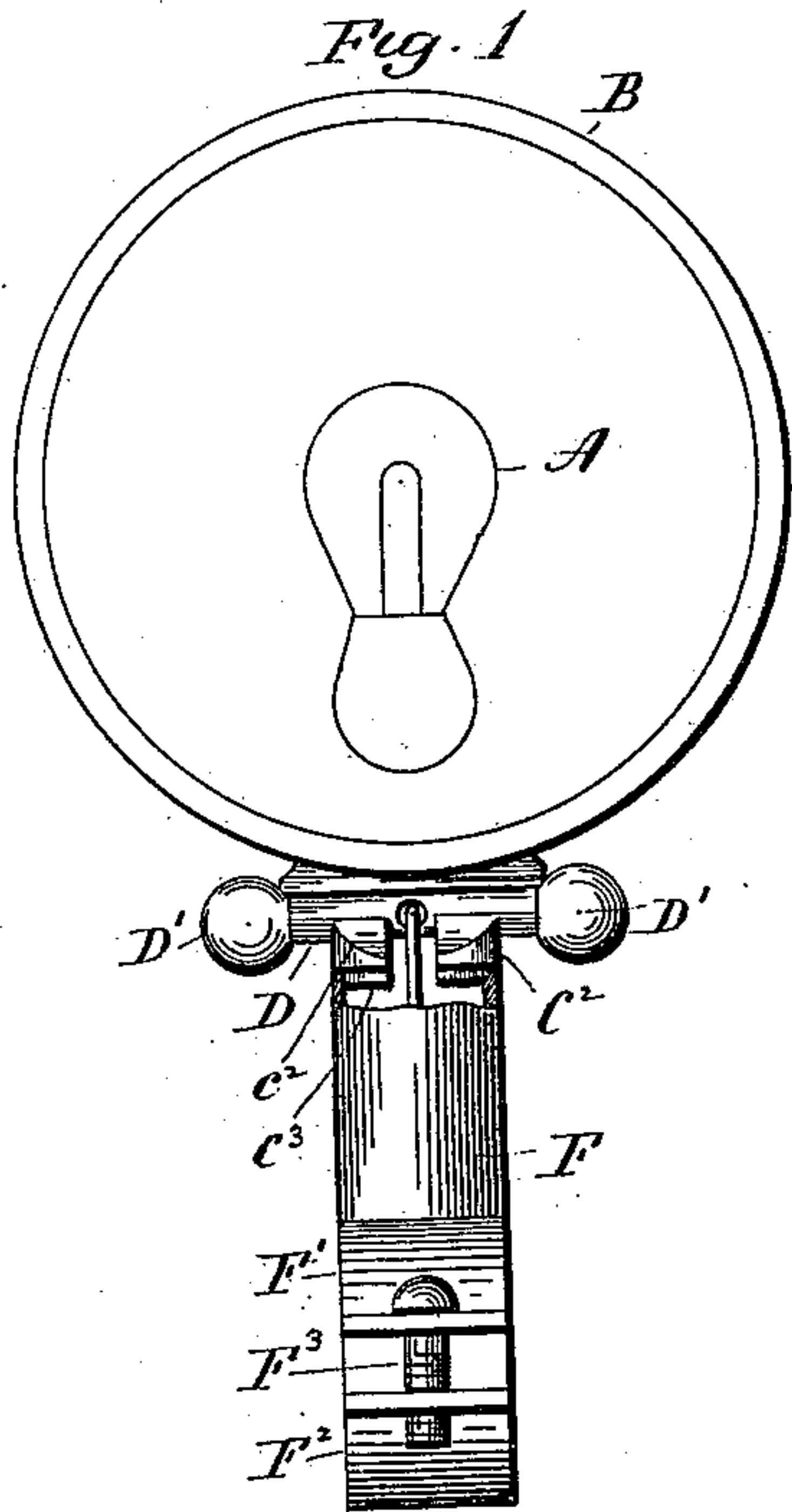


(No Model.)

E. D. ROCKWELL.  
ELECTRIC LAMP HOLDER FOR BICYCLES.

No. 554,459.

Patented Feb. 11, 1896.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

EDWARD DAYTON ROCKWELL, OF BRISTOL, CONNECTICUT.

## ELECTRIC-LAMP HOLDER FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 554,459, dated February 11, 1896.

Application filed May 10, 1895. Serial No. 548,856. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD DAYTON ROCKWELL, of Bristol, in the county of Hartford and State of Connecticut, have invented a new Improvement in Electric-Lamp Holders for Bicycles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in front elevation of one form which an electric-lamp holder constructed in accordance with my invention may assume; Fig. 2, a view thereof partly in side elevation and partly in vertical section; Fig. 3, a reverse plan view of the foot of the reflector; Fig. 4, a detached sectional view of the clip; Fig. 5, a detached plan view of the coupling-ring; Fig. 6, a view thereof in side elevation; Fig. 7, a broken view, in side elevation, of one of the modified forms which the device may assume; Fig. 8, a detached partial plan view of the clip of such device; Fig. 9, a detached partial view of another form of clip; Fig. 10, a detached plan view of such a coupling-ring as would be used in connection with the clip shown in Fig. 9.

My invention relates to an improved electric-lamp holder for bicycles, the object being to provide a simple, compact and convenient device for mounting electric lamps upon bicycles, and constructed with particular reference to convenience of operation and to rendering the light effective.

With these ends in view my invention consists in an electric-lamp holder having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, the incandescent electric lamp A is located within a parabolic reflector B, having a hollow stem B', terminating in a circular foot B<sup>2</sup>, the lower portion of the lamp and the electric connections for it being located within the said stem and foot. The particular construction of the lamp and the provision for leading electric wires to it will not be detailed, as they may be of any suitable character.

As shown in Figs. 1 to 6, inclusive, of the

drawings, the foot B<sup>2</sup> aforesaid is mounted in a horizontally-arranged coupling-ring C, provided at opposite points in its periphery with set-screws C' C', which impinge against the collar for securing the same within the ring, the forward edge of which is provided with a coupling head or member C<sup>2</sup>, constructed with a transverse horizontal groove c, a longitudinal vertically-arranged slot c', the outer end of which opens forward, while its inner end intersects the said groove midway the length thereof, a cam-face c<sup>2</sup>, formed at the outer end of the upper face of the head, and a depending annular boss c<sup>3</sup>, smaller in diameter than the head and intersected by the slot c'. The said head, it will be observed, offsets from the forward edge of the ring and is located in the plane thereof. The rear edge of the ring is provided at a point diametrically opposite the said coupling-head with a finger-piece C<sup>3</sup>. The said coupling-head co-operates with a coupling-bar D, furnished at its ends with knobs D' D' and connected midway of its length with the upper end of a spring E, located within a vertically-arranged hollow tube or post F, rigidly connected with the upper member, F', of a clip, composed also of a corresponding lower member, F<sup>2</sup>, and two screws F<sup>3</sup> F<sup>3</sup>, which pass through vertically-perforated ears formed at the ends of the members F' F<sup>2</sup>, which the said screws clamp upon the handle-bar of the machine or upon any suitable portion of the frame thereof.

The lower end of the spring E is bent to form an eye E', which is connected with and swivels upon a button f, secured to the clip member F' at a point within the lower end of the tube or hollow post F. Under the construction described the cross-bar D has loose bearing upon the upper end of the post or tube F, upon which it is free to turn, its turning being permitted by the rotation of the spring E. The coupling-ring C is connected with the coupling-bar D by crowding the coupling-head C<sup>2</sup> under the same, causing the bar to ride up over the cam-face c<sup>2</sup> of the head and into the groove c, in which it finds a seat. The slot c' receives the upper end of the spring E, while the depending boss c<sup>3</sup> fits into the upper end of the tube F, to the internal diameter of which its external diameter corresponds. In thus assembling the



parts the spring E is placed under sufficient tension to exert a strong downward draft upon the bar D, which pulls downward on the coupling-head C<sup>2</sup> and maintains the same in place upon the upper end of the tube, on which it is free to be rotated in one direction or the other at the convenience of the rider, who is enabled to throw the light in any direction within the plane in which the lamp may thus be rotated. In addition to this movement of the lamp the light may be also thrown up and down by pressing downward or upward upon the finger-piece C<sup>3</sup>, for such is the character of the connection between the coupling-head and coupling-bar that the head may be tilted, so to speak, up and down upon the post without being disengaged from the bar, which automatically brings the ring back to its horizontal position when the fingers cease to lift or depress the ring.

It will be readily understood from the foregoing that I secure a virtually universal joint between the lamp and the handle-bar, and that the rider may throw the light in any direction, sidewise or up and down.

To disconnect the lamp the set-screws C' C' of the coupling-ring may be manipulated to relieve their impingement upon the circular foot B<sup>2</sup>, formed at the lower end of the stem B' of the reflector, or the coupling-ring may itself be disconnected from the coupling-bar by drawing its coupling-head away from the same.

In the modified construction shown by Fig. 7 of the drawings the coupling-ring G is constructed with a rearwardly-projecting vertically-perforated lug or coupling member G', carrying a set-screw G<sup>2</sup> and receiving a stem or shaft H, on which the ring is vertically adjustable, and to which it is secured in any position of adjustment by means of the set-screw G<sup>2</sup>. The said shaft is attached at its lower end to a ball I, forming the ball member of a universal joint and frictionally clasped between the cup-shaped upper ends of two corresponding plates J J, drawn together by means of a screw J' and secured at their lower ends to a stud J<sup>2</sup>, projecting upward from the upper member J<sup>3</sup> of a clip, the other member of which is not shown. The ball I is provided with a short stem I', carrying a finger-button I<sup>2</sup>, which is grasped for turning the ball, as desired, between the two plates J J. It will be understood that the frictional contact between the cupped upper ends of these plates and the ball is made great enough to sustain the weight of the lamp in any position in which it may be placed. This construction also gives a universal movement to the lamp within the control of the rider.

In the construction shown by Fig. 9 I have represented a vertically-adjustable screw-post K, located within a spiral spring K', rigidly connected at its lower end with a hub K<sup>2</sup>, fastened to the center of the upper member K<sup>3</sup> of a clip, the lower member of which

is not shown. With this construction I employ a coupling-ring L, such as shown in Fig. 9, the said ring having a coupling-head L' preferably corresponding to the coupling-head C<sup>2</sup>, but having a circular recess l to receive the head of the screw K in place of a transverse horizontal groove c to receive the draw-bar D.

It will be apparent that the modifications shown by Figs. 8 and 9 also form a virtually universal joint for the movement of the lamp.

It is apparent that in carrying out my invention still other devices may be resorted to for mounting the lamp. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In an electric-lamp holder for bicycles, the combination with a reflector adapted to receive an incandescent electric lamp, and provided with a foot; of a clip adapted to be applied to a bicycle, a horizontally-arranged coupling-ring adapted to receive the said foot which is removably connected with it, and constructed with an offsetting coupling member forming a center upon which the ring is revoluble in a horizontal plane; and means for connecting the coupling-ring through its said coupling member to the clip, substantially as described.

2. In an electric-lamp holder for bicycles, the combination with a reflector adapted to receive an incandescent electric lamp, and having a foot; of a horizontally-arranged coupling-ring adapted to receive the said foot which is removably connected with it, and furnished with an offsetting coupling-head, a clip adapted to be applied to a bicycle, and means, including a spring, for connecting the said ring and clip through the medium of the said offsetting coupling-head which forms a center for the ring to revolve upon against the friction developed by the tension of the spring, substantially as described.

3. In an electric-lamp holder for bicycles, the combination with a reflector adapted to receive an incandescent electric lamp, and provided with a foot; of a horizontally-arranged coupling-ring into which the said foot is inserted and secured, and which is provided with a coupling-head offsetting from its edge in the plane of the ring, a clip adapted to be connected with a bicycle, and provided with a post, to the end of which the said head is applied, a spring combined with the said post and coacting with the said head for maintaining it in engagement with the post upon which it may be turned against the tension of the spring, substantially as described.

4. In an electric-lamp holder for bicycles, the combination with a reflector adapted to receive an incandescent electric lamp and



provided with a foot, of a coupling-ring with  
which the said foot is connected and which  
is provided with an offsetting coupling-head,  
a clip provided with a hollow post or tube, a  
5 rotatable spring located within the post of the  
clip, a cross-bar connected with the upper  
end of the spring and adapted to engage with  
the upper face of the said head which is con-  
structed with a groove to receive the bar,  
10 with a slot to receive the upper end of the

spring, and with a depending boss to enter  
the upper end of the tube, substantially as  
described.

In testimony whereof I have signed this  
specification in the presence of two subscrib- 15  
ing witnesses.

EDWARD DAYTON ROCKWELL.

Witnesses: •

LOUIS L. BEACH,  
ARTHUR G. BEACH.