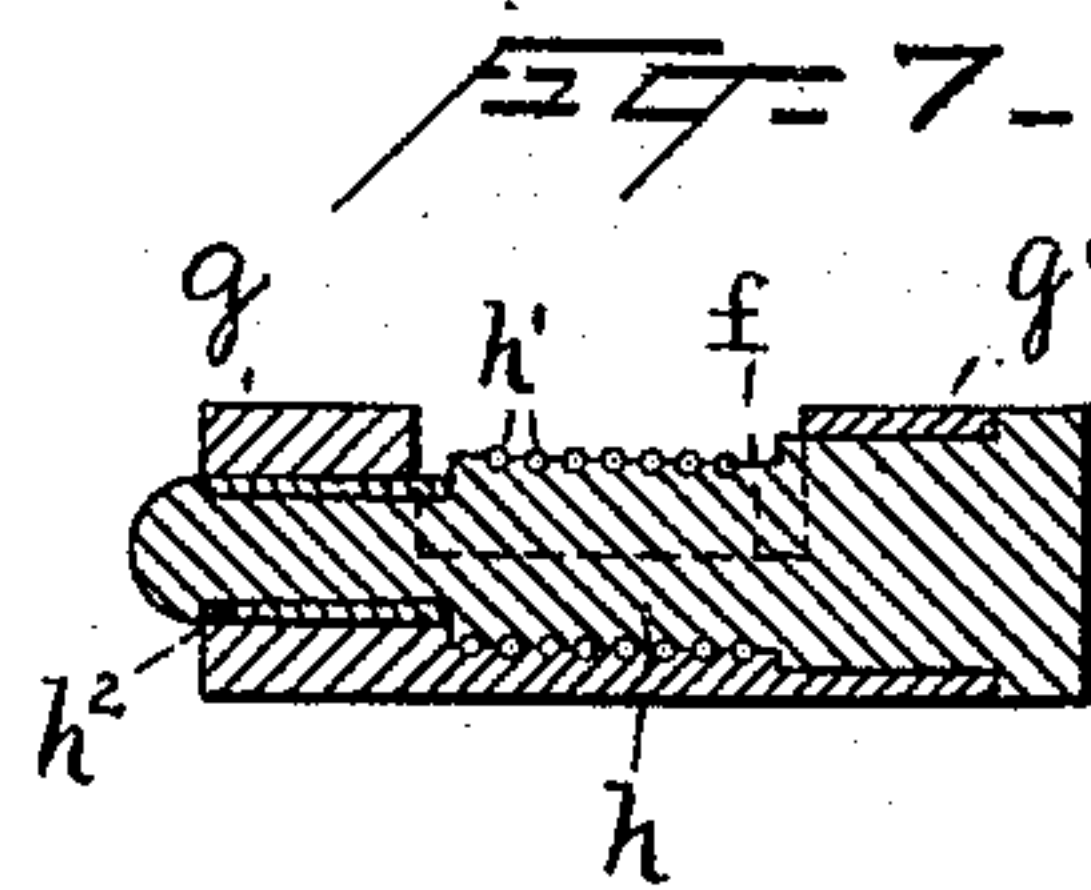
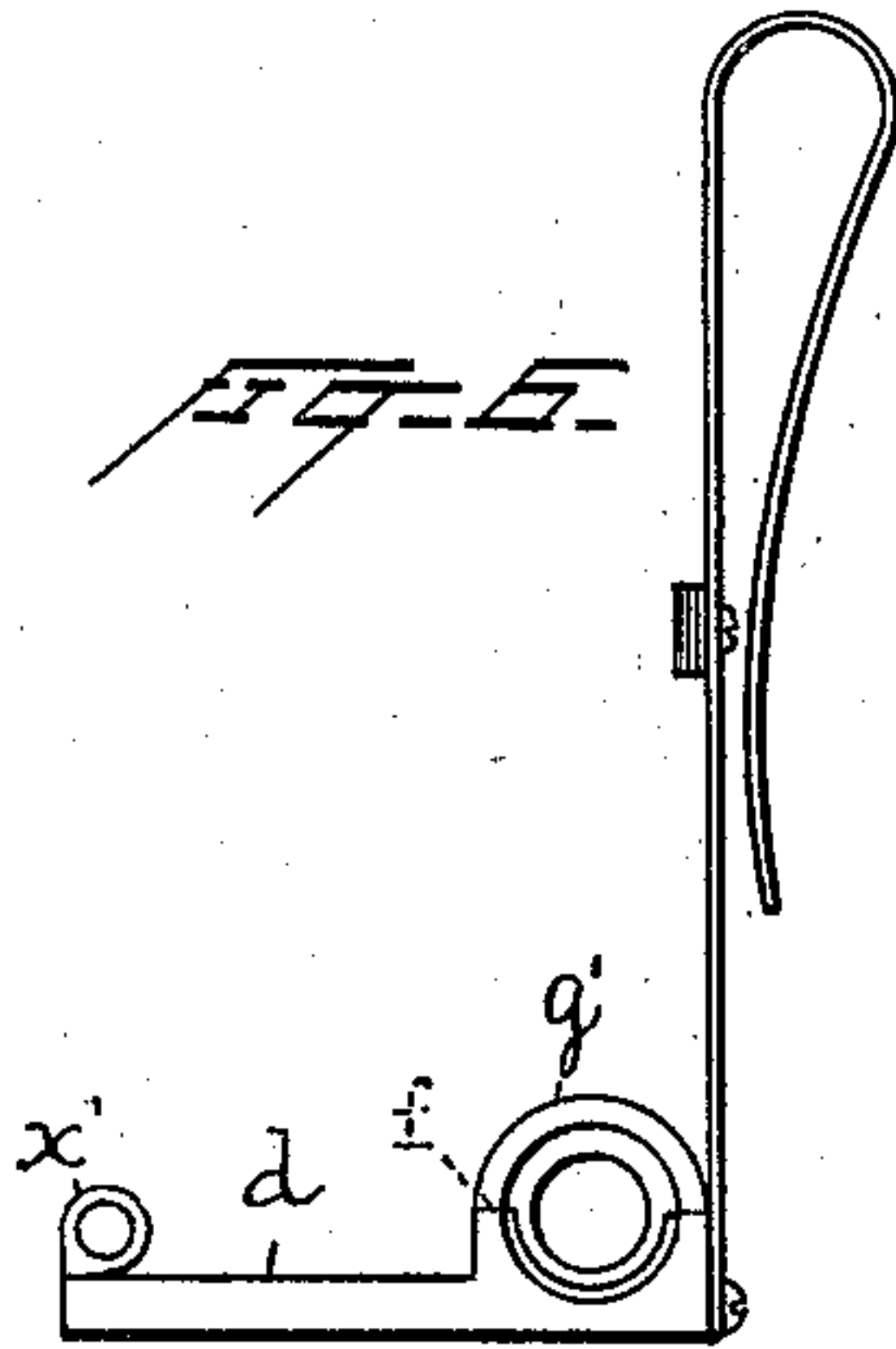
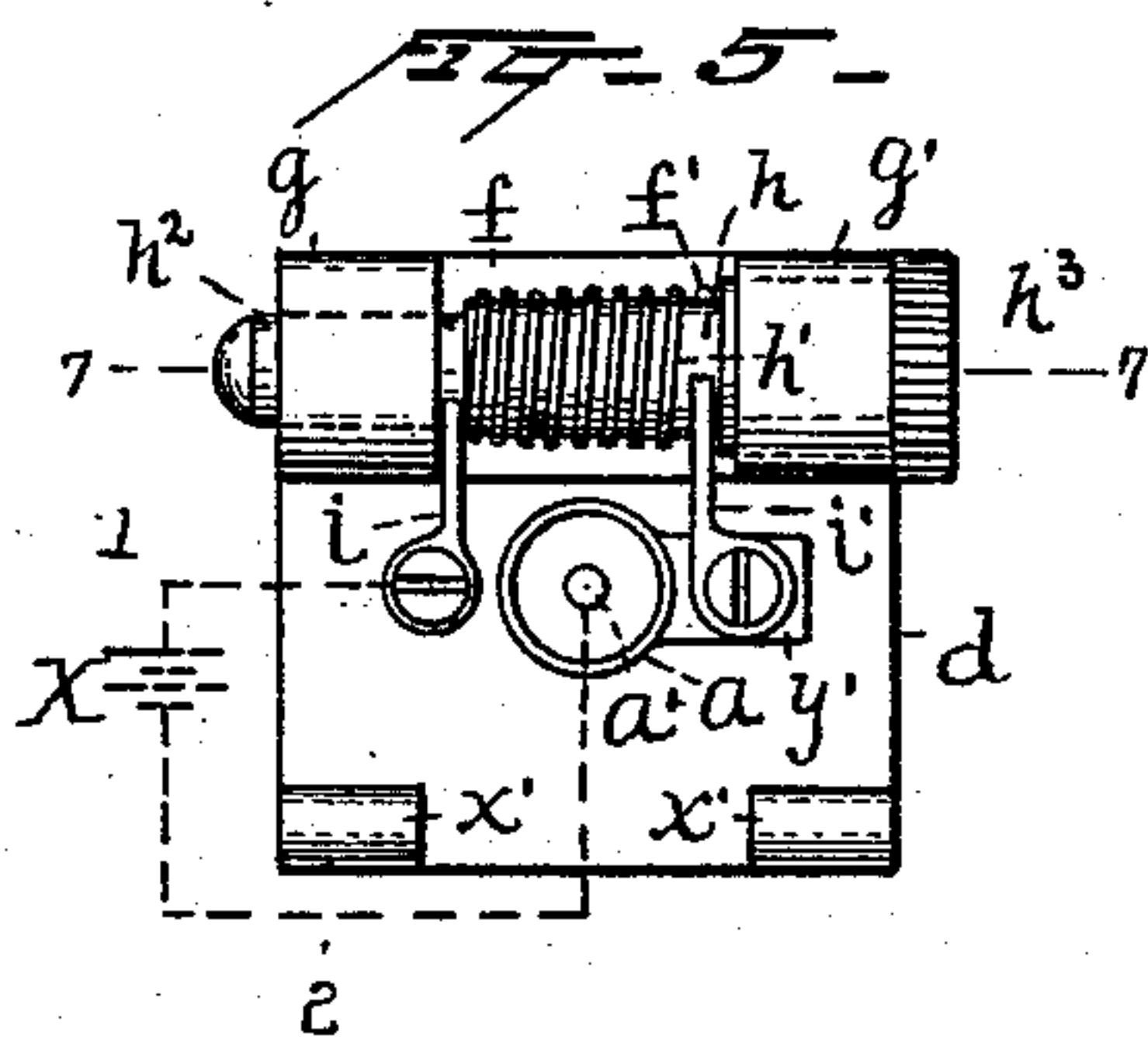
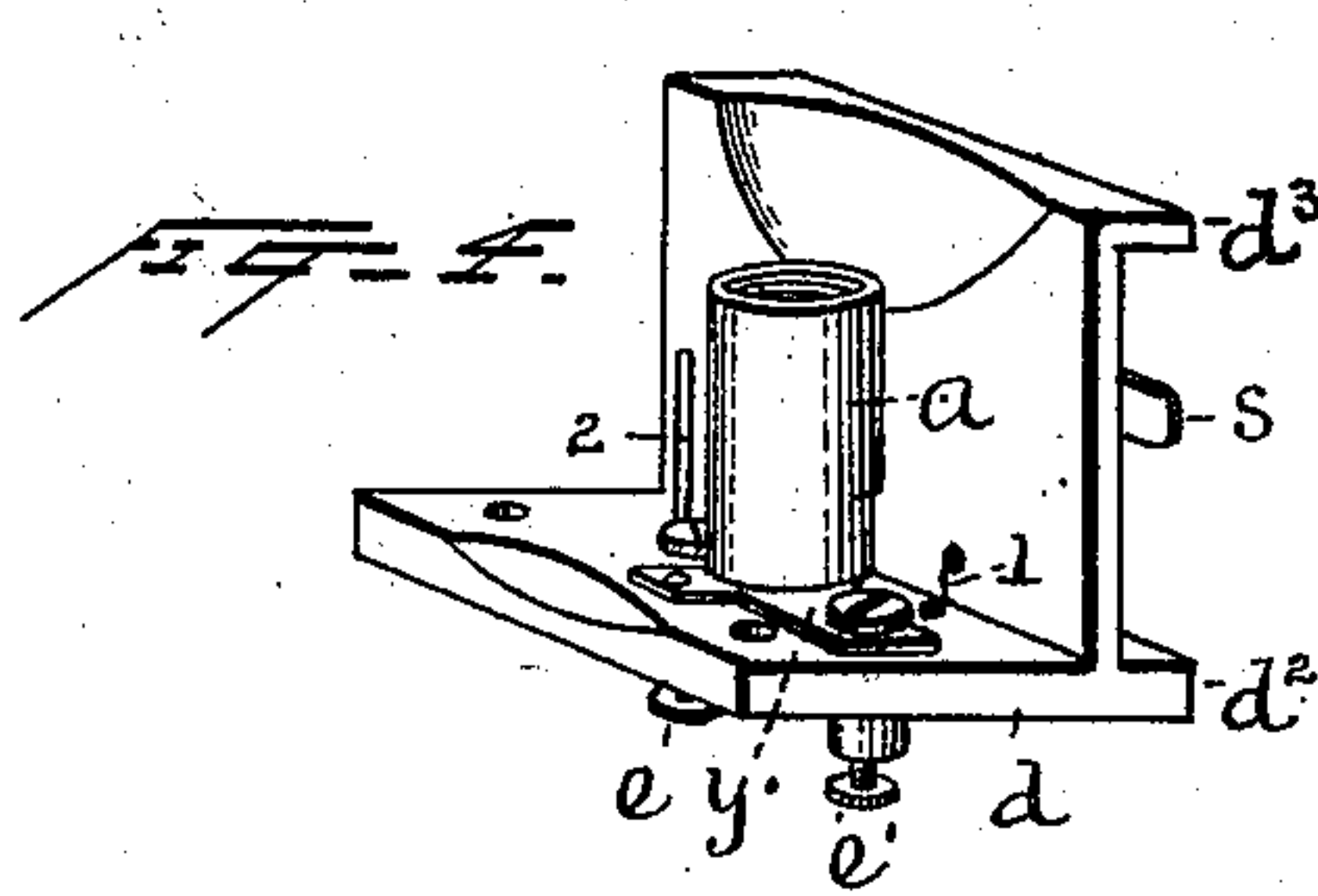
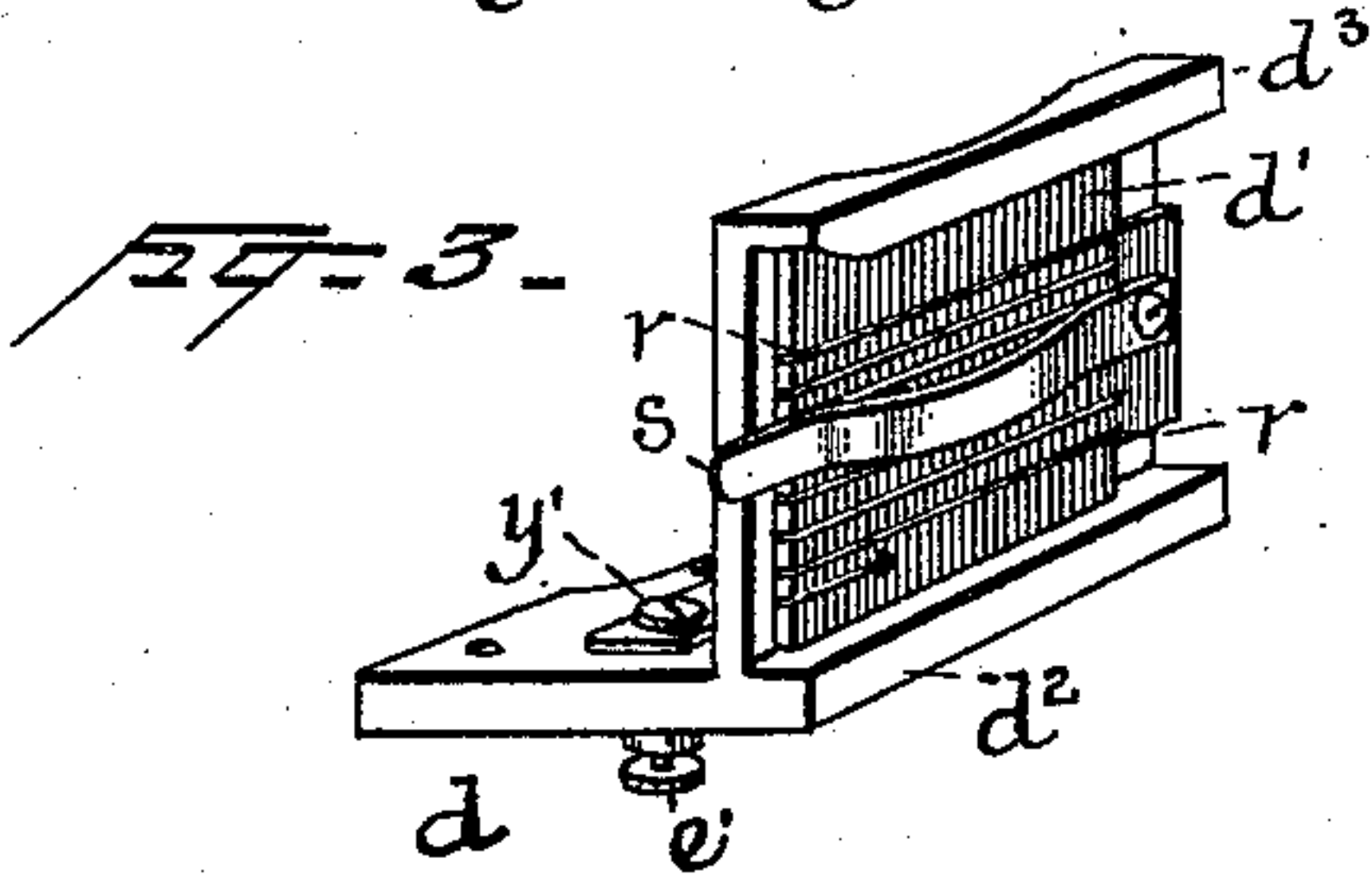
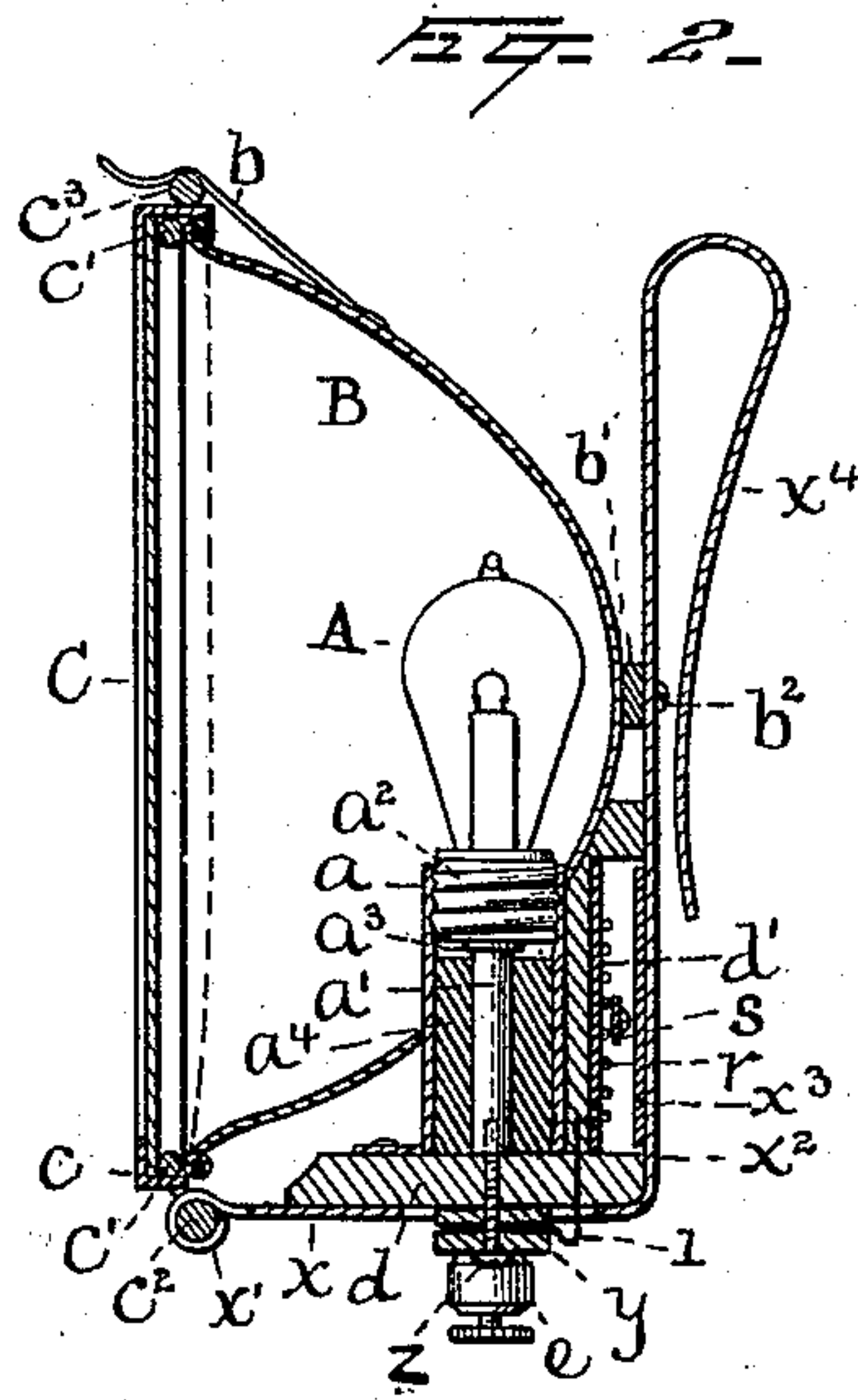
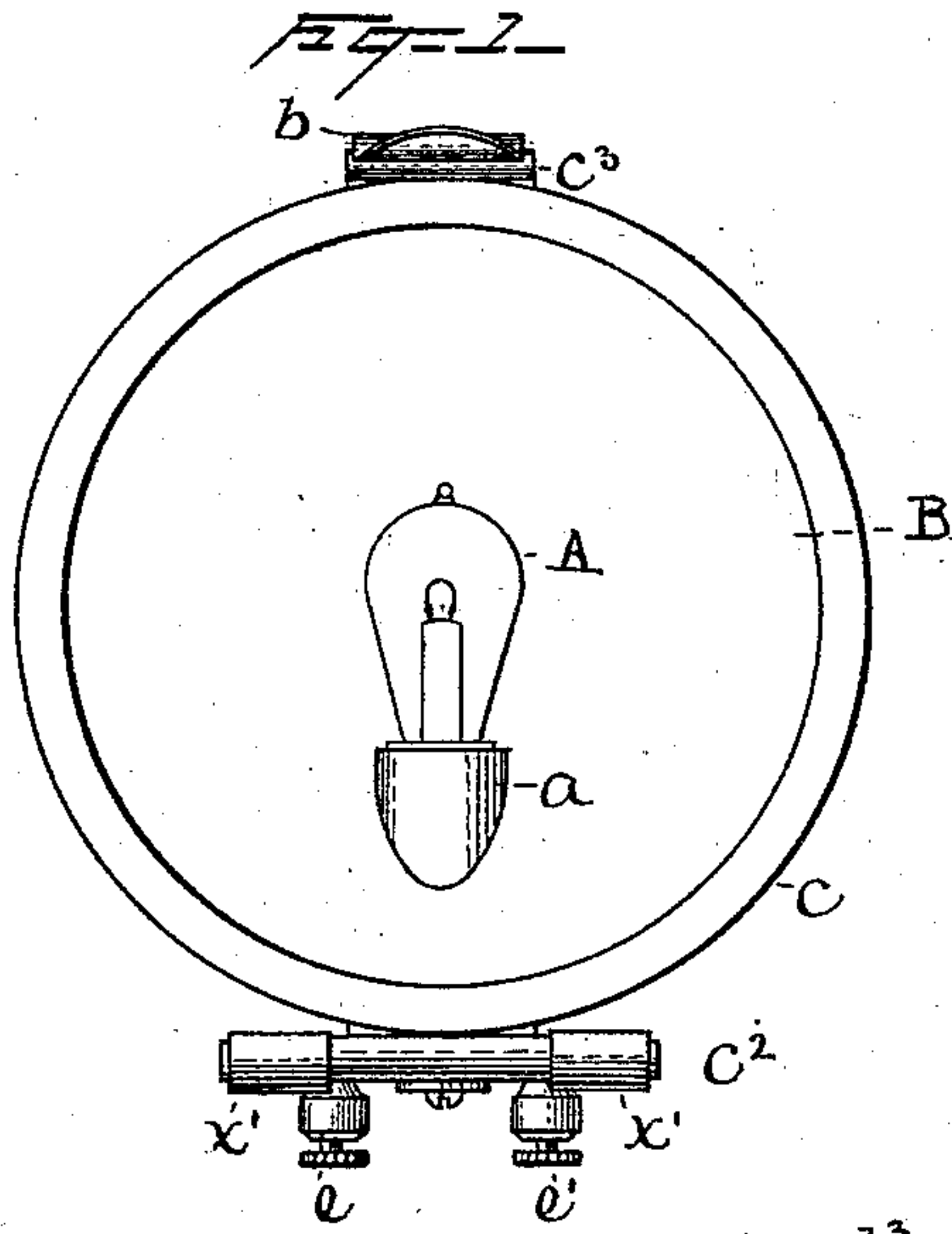


(No Model.)

W. K. L. DICKSON.
LANTERN FOR BICYCLE RIDERS.

No. 539,799.

Patented May 28, 1895.



Witnesses
Horatio A. Clark.
W. P. Puffer

Inventor
William K. L. Dickson
By his Attorneys
Dyer & Seely.

UNITED STATES PATENT OFFICE.

WILLIAM K. L. DICKSON, OF ORANGE, NEW JERSEY, ASSIGNOR OF ONE-HALF
TO LLEWELLYN H. JOHNSON, OF SAME PLACE.

LANTERN FOR BICYCLE-RIDERS.

SPECIFICATION forming part of Letters Patent No. 539,799, dated May 28, 1895.

Application filed August 4, 1894. Serial No. 519,447. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. L. DICKSON, a citizen of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Lanterns for Bicycle-Riders, of which the following is a specification.

The object of my invention is to provide a small, light, and simple lantern for bicycle riders in which a miniature incandescent electric lamp will be employed as the light giving part and which lamp will be supplied with current from a pocket-battery of any suitable construction; and my invention consists in the novel devices and combinations of devices hereinafter more fully set forth and pointed out in the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is a front elevation; Fig. 2, a central vertical section; Fig. 3, a perspective view of the base which carries the lamp-socket, showing a resistance-coil and switch; Fig. 4, another perspective view of the base, showing the lamp-socket; Fig. 5, a plan view of a modified form of base; Fig. 6, a side view of same with the hanger attached, and Fig. 7 a section on the line 7 7 of Fig. 5.

Referring to Figs. 1, 2, 3 and 4, A is the incandescent electric lamp, B the reflector, and C the glass cover, which is placed in a ring c and held therein by a spring-ring c' . Ring c has secured to it a pin c^2 , whereby ring c is hinged to plate x by bending the ears x' around said pin. At the top of the reflector is a spring catch b which engages with a lug c^3 on ring c to keep the cover closed. The lamp is inserted in a socket having a metal shell a and a metal pin a' which constitute the circuit terminals and with which the lamp terminals a^2 a^3 make contact respectively. Terminal a' is insulated from terminal a by a tubular piece of insulating material a^4 . The lamp socket is mounted on the base of insulating material d and projects through the reflector as shown in Figs. 1 and 2. Secured to the under side of base d are two binding-posts e e' , which project through an opening in plate x . Base d is L-shaped and on the back of the upright portion is secured a plate of insulating material d' upon which is wound a

resistance wire r . One end of this wire is connected by wire 1 to terminal a' through metal plates y and screws z which is screwed through base d and into the lower end of terminal a' . Binding-post e' is connected to socket terminal a by plate y' , and binding-post e is connected to the pivot of switch s by wire 2. The circuit connections, therefore, are as follows: from binding-post e to switch s , through resistance r to plates y , to socket terminal a' , to lamp terminal a^3 , through the filament to lamp terminal a^2 , to socket terminal a and plate y' to binding-post e' . Base d projects beyond the upright portion thereof as shown at d^2 and the upright portion is provided with a ledge d^3 , said projection and ledge being provided to prevent the switch and resistance wire from coming in contact with the upright extension x^2 of plate x . As an additional safeguard against the parts coming in contact with extension x^2 , I secure thereto a plate x^3 of insulating material. The reflector has secured to it a block b' and the reflector is secured in position by screws b^2 passing through extension x^2 and entering block b' . Extension x^2 is provided with a hook x^4 designed particularly for hanging the lantern to the rider's coat by inserting the hook into one of the coat pockets, or into a loop on the coat provided for that purpose, or the lantern may be hooked to any desirable part of the bicycle, but it is preferred to hang it as above mentioned, in which case the rider is free to dismount without disturbing the circuit connections. A further advantage derived from the use of my improved lantern is that if the rider for any reason dismounts, he can carry his lantern with him without inconvenience and without the delay involved in detaching the lantern from the machine.

Referring to Figs. 5, 6 and 7, d is a base of insulating material having knuckles x' at one end between which ring c is adapted to be hinged. At the opposite end the base is much thicker and is reduced as shown at f leaving shoulders g and g' which are drilled to form bearings for a screw h of insulating material which has a wire resistance coiled thereon. The part f of the base is concaved into a half circle and provided with grooves f' to form a female screw. The thread of

screw h is formed by cutting a spiral groove in the shank and embedding in this groove a wire h' whose ends are firmly secured in any suitable manner. This wire serves also
 5 as the resistance. The end of screw h which has its bearing in shoulder g has a metal sleeve h^2 placed thereon which is connected with wire h' . a and a' are the terminals of a lamp socket similar to that shown in Fig. 2.
 10 i is a contact brush resting on sleeve h^2 and i' is a contact brush adapted to make contact with wire h' . This brush is in direct contact with plate y' on terminal a . Screw h is provided with a milled head h^3 to operate
 15 same. In the drawings screw h is shown in the position at which the circuit is open. By turning the screw so that it will travel to the right, wire h' will be brought into contact with brush i' completing the circuit to the
 20 lamp with the entire resistance in circuit. The resistance is gradually reduced as the screw continues to travel to the right. Sleeve h^2 is of such length as to always maintain contact with brush i . To extinguish the
 25 lamp, screw h is turned back, throwing in resistance again, and when the screw reaches the limit of its inward movement the circuit is broken. The circuit connections are as follows: from battery X by wire 1 to brush i ,
 30 to sleeve h^2 , through wire h' to brush i' , to plate y' and terminal a , through the lamp to terminal a' , and wire 2 back to battery.

What I claim is—

1. The combination in a lantern, of a re-
 35 flector secured to support x^2 , an incandescent electric lamp mounted on a base d of insulating material, a switch and resistance carried by said base, binding-posts on said base for the circuit wires, a glass cover for the reflector

carried by a ring c hinged to plate x , and a
 40 catch for securing said cover, substantially as set forth.

2. The combination in a lantern, of a re-
 flector secured to support x^2 , an incandescent
 electric lamp mounted on a base d of insulat- 45
 ing material, a switch and resistance carried by said base, binding-posts on said base for the circuit wires, a glass cover for the reflector carried by a ring c hinged to plate x , a catch
 for securing said cover, and a hook on sup- 50
 port x^2 for suspending the lantern, substantially as set forth.

3. In an adjustable resistance for electric circuits, the combination of a screw having a
 resistance coiled thereon, and stationary con- 55
 tact brushes for making contact with said resistance, substantially as set forth.

4. In an adjustable resistance for electric circuits, the combination of a shank having
 a wire spirally wrapped thereon to form a 60
 screw-thread, and stationary contact brushes for making contact with said wire, substantially as set forth.

5. In an adjustable resistance for electric circuits, the combination of a base of insu- 65
 lating material, a screw working in said base having a resistance coiled thereon, a sleeve on one end of said screw and connected to said resistance, a contact brush making con-
 tact with said resistance, and a contact brush 70
 making contact with said sleeve, substantially as set forth.

This specification signed and witnessed this
 2d day of July, 1894.

WM. K. L. DICKSON.

Witnesses:

W. PELZER,
 EUGENE CONRAN.