

(No Model.)

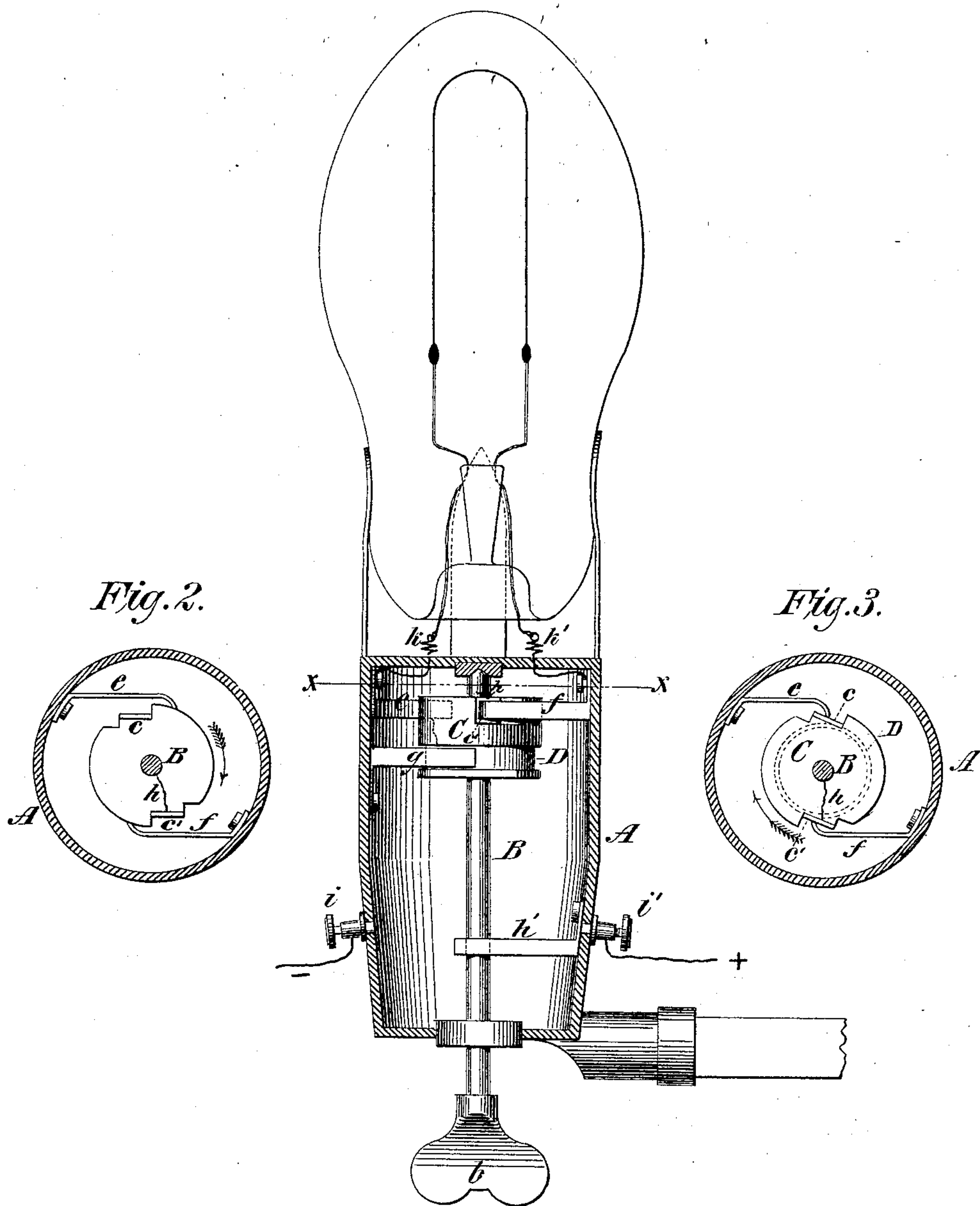
J. A. CABOT.

ALTERNATING SWITCH FOR INCANDESCENT LAMPS.

No. 324,979.

Patented Aug. 25, 1885.

Fig. 1.



WITNESSES:
Josaphat Dietrich
Daniel A. Warren

John A. Calot
INVENTOR

UNITED STATES PATENT OFFICE.

JOHN A. CABOT, OF NEW YORK, N. Y., ASSIGNOR TO THE CABOT ELECTRIC LIGHT AND MANUFACTURING COMPANY OF NEW YORK.

ALTERNATING SWITCH FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 324,979, dated August 25, 1885.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. CABOT, of the city, county, and State of New York, have invented a new and useful Improvement in an Alternating Switch for Incandescent Lamps, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a sectional view of an incandescent lamp with improved alternating switch attached. Fig. 2 is a sectional view of the switch with the circuit disconnected. Fig. 3 is a sectional view of the switch with the circuit connected.

The object of my invention is to furnish a device by which the electric current can be connected with first one and then the other leg of the carbon, so that the current can be made to flow up the right leg and down the left leg of the carbon, or up the left leg and down the right leg of the carbon, as desired, the effect of which is that the carbon thus treated will last much longer than where the current flows in one direction all the time.

A is a hollow cylindrical shell or case of wood, rubber, or other insulating material, and is provided with a suitable socket or other fastening device, whereby it may be secured to a supporting stand or bracket. It is also provided with a suitable holder for retaining the lamps in position.

A metallic shaft, B, is mounted axially in the case A, and is fitted with a handle, b, at its lower projecting end.

Upon the shaft B is mounted a cylindrical switch-block, C, of insulating material. Around this block C, near one of its ends, and preferably in a groove, is mounted an annular metallic ring, D. Small metallic contact-plates *c c'* are also mounted upon the block C, and these are preferably placed in opposite sides of said blocks in ratchet-shaped notches. Of these plates the one, *c*, is electrically connected with the ring D, and the other, *c'*, is connected by wire *h* with the shaft B.

Secured to and projecting inwardly from the case A are contact-springs, as follows: A spring, *g*, is made to bear upon the ring D, and is connected through a binding-post, *i*,

with one of the terminals of the line-wire, and a second spring, *h'*, is made to bear upon the shaft B, and is connected, through a binding-post, *i'*, with the remaining terminal of the line-wire. Two springs, *e* and *f*, are made to bear upon the block C, preferably on opposite sides thereof, and these springs are connected, respectively, through the spiral springs *k k'* in the lamp-holder, with the terminals of the lamp. Fig. 2 shows the springs *f* and *e* resting on the wooden cylinder C and circuit disconnected. Fig. 3 shows the springs *f* and *e* resting on the brass plates *c* and *c'*, respectively, and the circuit connected as shown in Fig. 1.

When the switch is turned on, as shown in Fig. 1 and also in sectional view in Fig. 3, the current flows through *i'*, through spring *h'*, and along the shaft B, through wire *h*, to plate *c'* on wooden cylinder C, underneath spring *f*; thence through spring *f* and wire and spiral spring *k'*, up through the right leg of the carbon; thence down the left leg of the carbon, through spiral spring *k*, through spring *e* onto notch *c*, to the continuous band D; thence through spring *g* to *i*, and out. If, now, shaft B be turned one-half revolution, notch *c'* will be connected with spring *e*, instead of spring *f*, as before, and the current flows through *i'*, spring *h'*, and along shaft B, as before, to notch *c'*; thence through spring *e* up along the wire through spiral spring *k* and up to and along the left leg of the carbon; thence down the right leg of the carbon, through spiral spring *k'*, spring *f* now bearing on notch *c*, through continuous band D, through *g* and *i*, and out.

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

1. In a switch for electric lamps, the combination, with a lamp-holder, of a rotating switch-block bearing upon its outer surface two contact-plates electrically connected with the terminals of the line-wire, and two contact-springs made to bear upon the switch-block and electrically connected with the contact springs or plates of the lamp-holder, the whole so arranged that a rotation of the switch-

block will cause an alteration of the direction of the current from the line-wire through a lamp placed in the holder, all substantially as described.

5 2. The combination of the insulating block C, mounted upon the shaft and provided with plates *c'* and *c* and continuous brass band D,

connected through contact-springs with the line-wires and with the terminals of the lamp-holder, substantially as shown and described. 10
JOHN A. CABOT.

Witnesses:

DANIEL A. WARREN,
ARTHUR B. COOK.