(No Model.)

C. G. PERKINS.

SPRING SWITCH FOR ELECTRIC LAMPS.

No. 247,104. Patented Sept. 13, 1881.

FIG. 1.

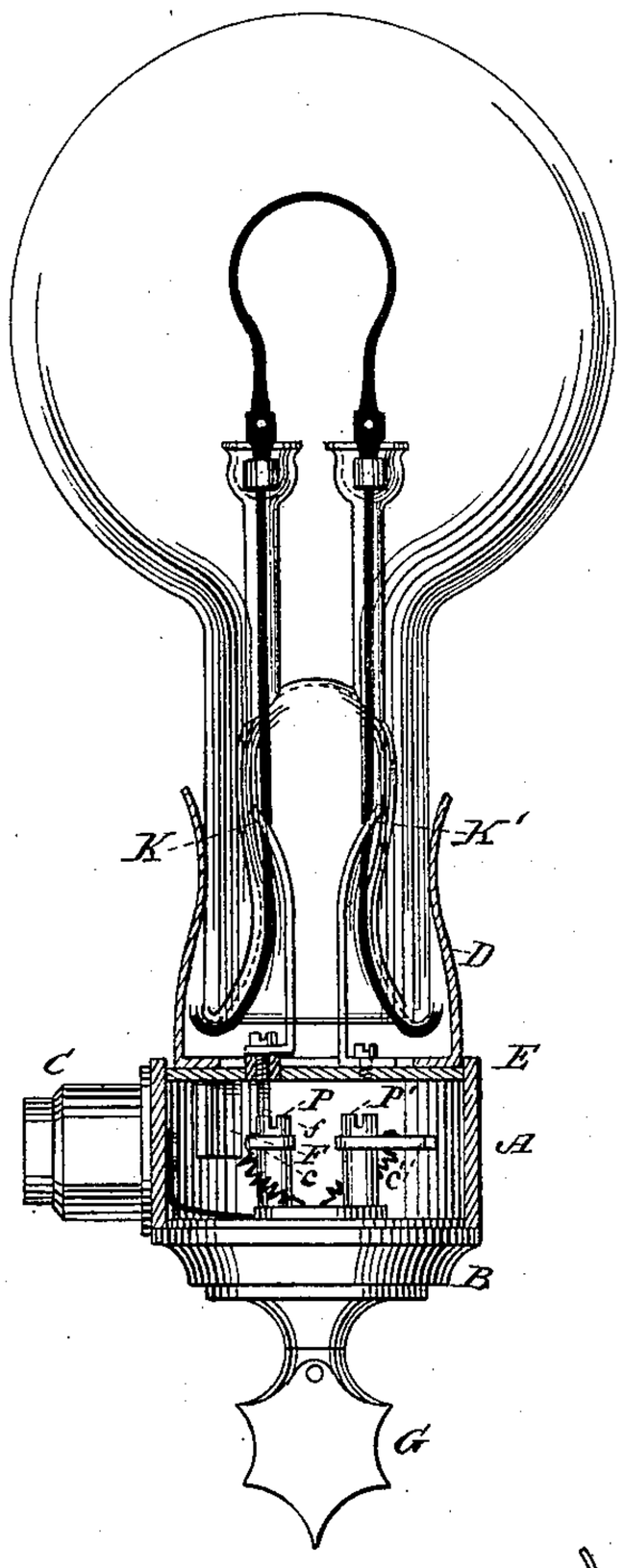


FIG. 3.

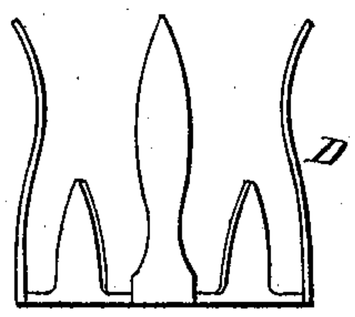
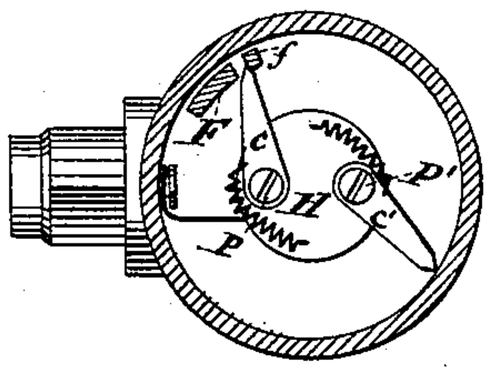


FIG. 2.



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per Parker W. Page

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UNITED STATES PATENT OFFICE.

CHARLES G. PERKINS, OF NEW YORK, N. Y., ASSIGNOR TO THE UNITED STATES ELECTRIC LIGHTING COMPANY, OF SAME PLACE.

SPRING-SWITCH FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 247,104, dated September 13, 1881.

Application filed February 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. PERKINS, of the city, county, and State of New York, have invented certain new and useful Improvements in Spring-Switches for Incandescent Lamps, of which the following is a specification, reference being had to the drawings accompanying and forming a part thereof, and in which—

Figure 1 is a view of the switch and lamp arranged in operative relation. Fig. 2 is a plan view of the switch and its connections, and Fig. 3 is an elevation of the spring-socket designed to hold the lamp in position on the base.

My invention has for its object a switch or circuit-breaker which can only be turned in one direction, and in which the circuit can only be broken by the snapping action of the spring contact-strips.

To this end the invention consists in details of construction, which will be understood by reference to the drawings.

The circuit-breaker is contained in a base of ebonite, dry wood, or other suitable non-conducting material, A, with a bottom, B. This is adapted to be secured to the end of a metallic bracket, a portion of which only is shown at C.

The box A is provided with a cover, to which is attached the spring-socket D, cut and struck up from a sheet of brass or other resilient metal. To the upper surface of the cover E are also secured the contact-strips K K′, which convey the current to the lamp. One of those strips, K′, is permanently connected to line by a wire or through the metallic bracket. The other strip is in electrical connection with a plate, F, having a broad bearing-surface, and depending from the under surface of cover E. On one side of plate F is secured an independent pin or stop, *f*. Through the bottom B passes a shaft turned by a key, G, and ending in a flat head to form the plate H. To diametrically-opposite points on this plate are secured two standards, P P′, with sharp-pointed contact-levers pivoted thereon, as shown. These levers are of such a length that they may act as pawls by engaging with the inner surface of chambered base A, against which they are held by springs attached to plate H. This allows the key to be turned in one direction, but locks it when an attempt is made to turn it back. Electrical connection is completed by one of the line-wires to any suitable conducting-surface bearing on plate H—as, for instance, a metal washer under the same. When the key is turned in the proper direction one of the spring-levers *c c′* slides over stop *f*, which cleans off any impurities which may have collected thereon. It then falls upon plate F and completes the circuit through the lamp. If the key be further turned, the lever slips off from F with a snap, thus breaking the connection and preventing the formation of an arc between the two contact-points.

I employ two contact-levers, though more than this might be used. Two, however, is a desirable number, as it does not complicate the device, and the greatest distance through which the key can be turned without completing the circuit is one hundred and eighty degrees. This form of switch is especially convenient, as it resembles the ordinary gas-cock, and as it is capable of only one mode of operation, by which the current must always be made and broken in the same manner.

If so desired, the inner surface of base A may be serrated, to insure the proper engagement of the pawls should their points become blunted or worn by long usage. The devices are capable of many modifications which I have not shown, as they follow directly from the invention as described.

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

1. The combination, in a circuit-maker for incandescent lamps, of a circular chambered base, a contact-plate secured therein, a rotary switch-pin passing up through the bottom of the base, and carrying spring-levers adapted to bear upon the contact-plate and to act as pawls with the inner surface of the base to prevent the switch being turned back, substantially as described.

2. The combination, in a circuit-breaker for electric lamps, of the chambered base A, rotary key H, spring conducting-pawls *c c′*, engaging with inner surface of the base, and contact-plate F, substantially as described.

In testimony whereof I have hereunto set my hand this 19th day of February, 1881.

CHARLES G. PERKINS.

Witnesses:

HIRAM S. MAXIM,

L. H. LATIMER.