

(No Model.)

C. G. PERKINS.
INCANDESCENT ELECTRIC LAMP.

No. 274,654.

Patented Mar. 27, 1883.

Fig. 1.

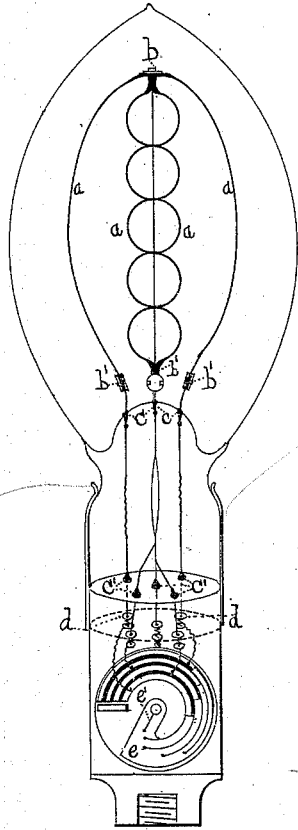


Fig. 5.

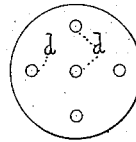


Fig. 3.

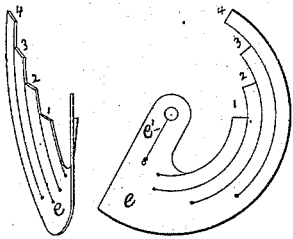


Fig. 2.

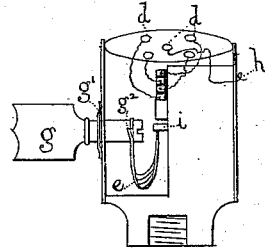
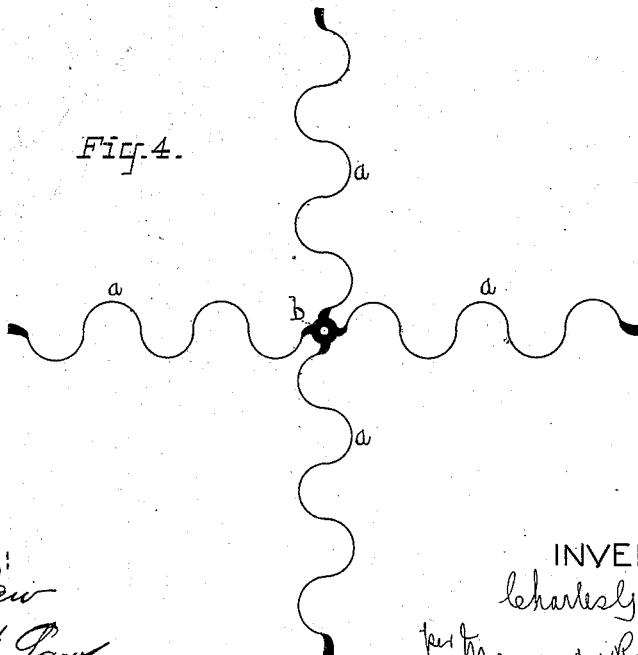


Fig. 4.



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CHARLES G. PERKINS, OF CAMDEN, NEW JERSEY.

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 274,654, dated March 27, 1883.

Application filed August 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. PERKINS, of the city of Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Incandescent Lamps, of which the following is a full, clear, concise, and exact description, such as will enable others skilled in the art to which my invention relates to make and use the same, reference being had to the accompanying drawings.

The ordinary incandescent lamps now in use are very uncertain in the length of time they last, at best being of short duration, and when more than one filament has been inclosed in a single chamber the mechanism is so complicated as to render the lamp of but little commercial value.

The object of this invention is to construct a lamp which shall have two or more filaments inclosed in one chamber for the purpose of prolonging the use of such lamp, and to simplify the mechanism for operating these filaments, so that the lamp shall have a more extended application, and thus be of greater commercial value than lamps hitherto constructed upon similar principles.

Figure 1 represents a full-size view of my improved lamp, with the base thereof shown in section, so as to expose the switch mechanism, and the manner in which the filaments are put in circuit therewith. Fig. 2 is a view of the switch-box, partly in section, in which may be seen the thumb-piece, with the switch attachment, and the sockets in which the wires leading to the carbon filaments are placed for putting these filaments in circuit. Fig. 3 represents two separate views of the contact making and breaking spring, showing this spring divided at one end into as many strips as there are filaments in the globe. Fig. 4 shows a construction of carbon filament suitable for this lamp, the whole forming one piece, which is clamped in the center at the top of the lamp. Fig. 5 represents a view of the top of the switch-box, showing the position of the contact-sockets into which the wires leading from the carbon filaments are put.

a a in Fig. 1 are the carbon filaments, which are formed of one piece, and are centrally clamped, as shown at *b*, to a wire running up through the center of the carbons, the ends be-

ing separately secured at the base of the lamp, as shown at *b' b'*. The platinum wires to which *a a* are secured are sealed at *e* and *e'*, and extend outside the lamp sufficiently far to pass into the sockets *d d*, where they fit tightly, and where contact with the switch mechanism is made.

e is the contact maker and breaker, which is divided at one end into as many strips as there are carbon filaments to be put in or out of circuit, Fig. 3 illustrating fully the method of division.

e' is a slot having one side thereof depressed. *g* is a thumb-piece which passes through the side of the switch-box. The latter is made of some non-conducting material. The spring *e* is fixed to *g*, as shown in Fig. 2. At the end of *g*, where *e* is secured, is a graduated notch, the shoulder of which meets the elevated part of *e* at the slot *e'* when the spring *e* is required to be carried round. Should the thumb-piece be turned in the wrong direction, it slides over *e*, leaving the latter stationary. This is also fully shown in Fig. 2.

When the lamp is placed in circuit one pole is connected to the central wire at *h*, the other pole being connected to any suitable part of the fixture upon which the lamp is set up, this fixture having metallic connection with the thumb-piece and contact-spring *e*.

g' is a spring interposed between the thumb-piece and the switch-box. Its object is to prevent the thumb-piece from working loose. If, now, *g* be turned until the shoulder of the graduated notch upon its end meets the elevated portion of the slot *e'* of *e*, the latter may be carried round until it snaps over the pin *i*, when No. 1 on *e*, Fig. 3, will put one of the carbon filaments in circuit. If *g* be turned still farther, No. 2 makes contact, as in No. 1, putting the opposite filament in circuit, and so on with the other carbons in the globe. It will thus be seen that either one light at the time, or simultaneously the whole of the lights in the globe, may be put in circuit by the simple mechanism above described.

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

1. In an incandescent electric lamp, the combination of a number of carbon filaments formed of one piece, mounted upon a central support-

ing and conducting wire, as at *b*, the other ends being sealed separately at the base, as at *cc*, so that each half-loop may be made a separate light-giving body, substantially as described.

5 2. In an incandescent electric lamp, the combination of two or more carbon filaments consisting of one piece inclosed in a chamber exhausted of air, and the contact maker and breaker *e*, formed of one piece, constructed so
10 as to simultaneously or singly operate a num-

ber of lights in one chamber, said contact-spring having the slot *e'* and the depression at one side thereof, and the thumb-piece *g*, having the graduated notch *g²*, with the spring *g'*, the whole constructed substantially as described, 15 and for the purpose set forth.

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Witnesses:

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