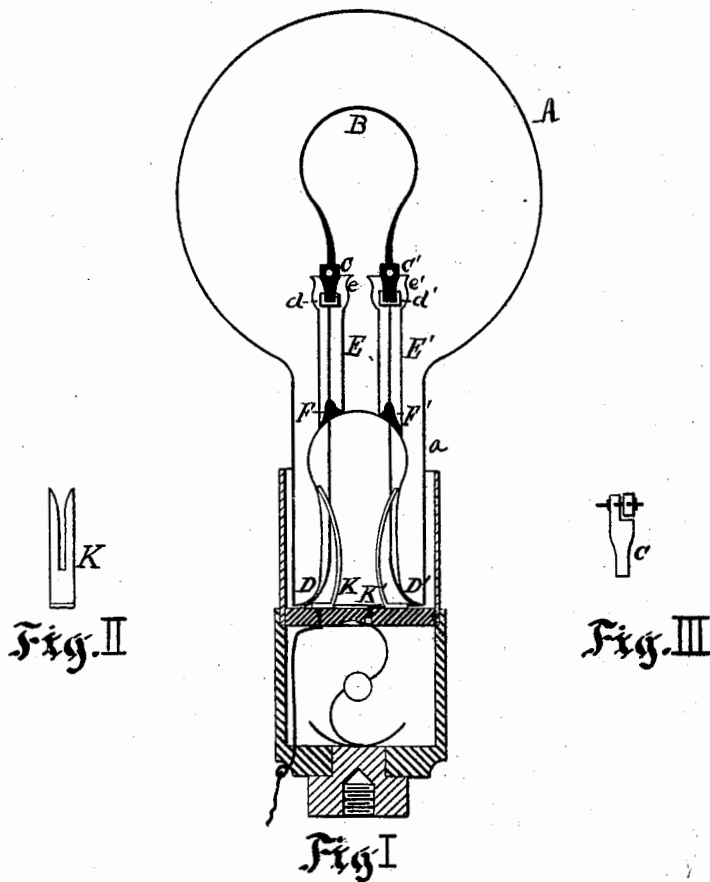


(No Model.)

C. G. PERKINS.
ELECTRIC LAMP.

No. 244,291.

Patented July 12, 1881.



Witnesses

Frank G. ...
Henry B. ...

Inventor

Chas. G. Perkins
per Parker, W. Page
Atty.

UNITED STATES PATENT OFFICE.

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

ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 244,291, dated July 12, 1881.

Application filed February 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHAS. G. PERKINS, of the city, county, and State of New York, have invented certain new and useful Improvements in connection with Incandescent Electric Lamps, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention relates to that class of lamps in which the light is produced by the incandescence of a conductor of high resistance inclosed in a glass globe, and it more particularly concerns the construction of the clamping devices for uniting the said conductors to the wires leading into the lamp or globe, and also a special arrangement of the conducting-wires outside the globe for completing the circuit with the contact-strips in the lamp-socket.

In an incandescent lamp it is necessary to enlarge the ends of the carbon strip where it is united to the conducting-wires in order to prevent the development of a heat at that point which would fuse the metallic connections. If the ends be thickened or otherwise enlarged, it becomes a difficult matter to thoroughly carbonize them and to drive off the occluded gases which they retain without injuring the remaining part of the carbon. To avoid this in an economical manner is the object of the first part of my invention, which contemplates the employment of independent carbon-clips which are secured to the incandescent strip, and are adapted to fit tightly in platinum cups or sockets carried by the conducting-wires.

To complete the circuit between the above or any ordinary form of lamp and its socket forms the second part of my invention, and I accomplish this by means of two bifurcated contact-strips attached to the base of the lamp-socket, constructed with a tendency to bear against the conducting-wires of the lamp at a point within the supporting-neck, or that part to the top of which the conducting-wires are usually sealed.

For a detailed description of the invention reference is made to the accompanying drawings, in which similar letters refer to corresponding parts.

Figure I represents the lamp complete and

as adapted for use. Fig. II is a face view of one of the bifurcated contact-strips or springs; Fig. III, an enlarged view of the carbon-clamp.

The lamp A is of the usual form, and is composed of a globe, having the base portion *a* provided with an internal neck projecting within the base, for supporting the conducting-wires, the central portion of which is of smaller diameter than the ends.

C C' represent the carbon-clamps, one of which, C, is shown in detail in Fig. 3. Each clamp is constructed in two parts, one of which is longer than the other, and has its lower part reduced and tapering to fit in the platinum sockets *d d'*. The extremities of the carbon strip B are clamped tightly between these two parts by means of small screws and nuts. The ends of the conducting-wires are furnished with small platinum cups *d d'*, into which the tapering ends of the clamps are forced.

E E' are light glass tubes inclosing the conducting-wires. They are welded to the glass of the globe at the points of sealing, F F', and are provided with flaring ends or enlargements *e e'* where they surround the platinum sockets *d d'*. These tubes serve as insulators and prevent a direct static discharge from taking place between the wires.

In Fig. I are also exhibited my improved circuit-connections. The wires D D' are brought down to and around the bottom of neck *a*, where their ends are secured by any suitable means. To the base of the socket into which the lamp fits are secured the contact-strips K K', which form the terminals of the line-wires. The springs have bifurcated ends for engaging the wires, and are bent outward, so as to bear upon the said wires within the neck when the lamp is fitted down in its socket. Springs K K' are made of such a length that when the lamp is in position for giving light their ends bear on the wires where they pass through the enlarged part of the supporting-neck, thus insuring a good electrical contact. By this construction the circuit is completed and the lamp set in position with great ease and certainty. By bringing the contact-pieces from the base-piece up into the interior of the supporting-neck a connection may be made with the wires

themselves, and all additional contact-plates are dispensed with. The circuit is completed through the lamp by means of the contact-springs K K', the former of which is in permanent electrical connection with the end of one of the circuit-wires, the latter being in metallic contact with a circuit breaker or key, to which the current is led by an insulated wire passing through the bracket used to support the lamp.

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

15 1. The combination, in an electric lamp, of a continuous carbon conductor, carbon-clamps for the ends of the same, and supporting conductors carrying metallic sockets adapted to receive said carbon-clamps, as described.

2. An incandescent electric-lamp globe, pro-

vided with a hollow neck or base containing the conducting-wires, in combination with contact-springs attached to a socket or holder and adapted to project up into the said neck and bear on the wires contained therein.

3. An electric-lamp globe with a hollow neck or base, *a*, and conducting-wires D D' sealed therein, in combination with bifurcated contact-springs attached to the holder or socket and arranged to project up into the hollow neck and engage with the wires therein.

In testimony whereof I have hereunto set my hand and seal this 31st day of January, 1881.

CHARLES G. PERKINS. [L. s.]

Witnesses:

JOSEPH V. NICHOLS,

L. H. LATIMER.