(No Model.)

F. SCHAEFER.

ELECTRIC LAMP HOLDER.

No. 339,217. Patented Apr. 6, 1886.

Fig: 1.

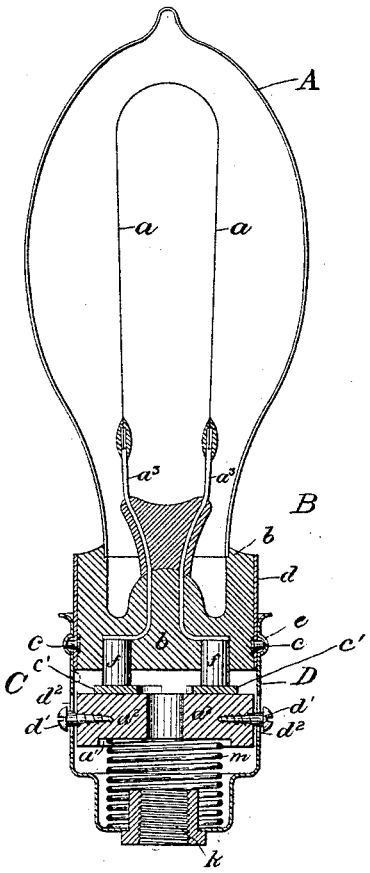


Fig: 2.

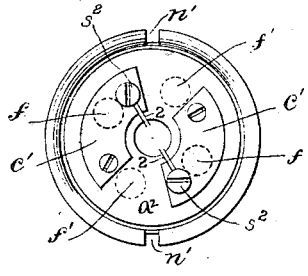
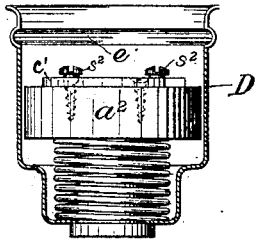


Fig: 3.



Witnesses.

John. F. Nelson

W. H. Sigston

Inventor.

Frederick Schaefer

by Crosby & Gregory Attys.

UNITED STATES PATENT OFFICE.

FREDERICK SCHAEFER, OF BOSTON, MASSACHUSETTS.

ELECTRIC-LAMP HOLDER.

SPECIFICATION forming part of Letters Patent No. 339,217, dated April 6, 1886.

Application filed May 22, 1885. Serial No. 166,382. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SCHAEFER, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Electric-Lamp Holders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention has for its object the improvement of incandescent-lamp holders, whereby a sure and reliable contact is made between the terminal electrodes of the carbon filament and the contact-pieces secured to the usual insulating-block.

My invention also has for its object the simplification of the construction of incandescent-lamp holders, whereby a damaged lamp may be quickly replaced without necessitating the removal of the holder from its fixture or support.

My invention consists of a lamp-holder constructed and arranged substantially as hereinafter particularly set forth and claimed.

Figure 1 is a sectional elevation of a lamp and holder embodying my invention. Fig. 2 is a plan view of the holder with the lamp removed, and Fig. 3 a detail to be referred to.

The sleeve or case D may be struck up from sheet metal and shaped as shown, and is provided at one end with a screw-threaded socket, *k*, by which the holder may be secured to any suitable or proper support in any desired place. Within the sleeve or case I have placed a spring, *m*, and also an insulating-block, a^2, provided with independent contact-pieces c' c', (see Fig. 2,) the latter having a central opening, through which conducting-wires are led, to be fastened to the contact-pieces by headed screws s^2 s^2, as shown in Fig. 2, the said spring *m* (shown as entering a recess in the said block) normally forcing the contact-pieces c' c' up against the terminal electrodes *f f* of the carbon filaments *a a*, the said terminal electrodes being herein shown as lugs projecting from the plaster-of-paris or other equivalent mold, *b*, they being connected to the said filaments *a a* by the usual platinum wires, a^3 a^3, the said lugs and contact-pieces establishing good electrical connection between the lamp B and the holder C.

The vertical movement of the insulating-block a^2 within the sleeve or case is limited by suitable stops, herein shown as screws d', connected with the said block, they being extended through slots d^2 in the said sleeve or case and striking against the ends of the said slots; but it is evident other means may be employed to limit the said movement, such as a shoulder projecting from the inside of the case D, or a re-entrant portion of the case itself above the said block, as shown at the left of Fig. 1 in dotted lines.

To secure the lamp B to the holder C, I have surrounded the plaster-of-paris mold *b* by a band, *d*, provided with projections *e e*, which, entering slots n' n' in the case D, (see Fig. 2,) are thereafter by a partial rotation of the lamp caused to enter and travel in an annular groove, *e*, (see Fig. 3,) and form with the groove in the said sleeve or case at the ends of the vertical slots a bayonet-joint to connect the lamp with the sleeve or case D, the lamp being stopped in its rotary movement as soon as the lugs *f f* strike the headed screws s^2, (shown in Fig. 3,) the position of the lugs being shown in Fig. 2 in heavy dotted lines.

During the movements described of the lamp the terminal electrodes act against the contact-pieces c' c' and push the insulating-block back against the action of the spring *m*, which supports it in a yielding manner, and as the lamp is rotated the terminal electrodes bear against or wipe over the contact-pieces, thus forming a rubbing contact and securing the best possible electrical connection.

Contact-pieces shaped substantially as shown in Fig. 2, in operation, may be made to constitute a switch, whereby the operator, by turning the lamp so that the terminal electrodes will occupy a position between the said contact-pieces c' c', as indicated by the light dotted lines f' f' in Fig. 2, can cut the said lamp out of circuit, and that without removing it from the said sleeve or case.

Inasmuch as the lamp and holder are separate and detachable, it is evident that the said lamp, if broken or otherwise damaged, can be quickly removed and replaced by another without disturbing the holder, the construction of which is so simple that it will require very little repairing.

I am aware that a spring has been used in

connection with a lamp and its holder; but as heretofore employed the spring has performed an entirely different purpose or function from that in the combination in which it is herein placed; and I am aware, also, that a lamp and its holder have been attached by a bayonet-like-joint connection.

I claim—

1. In an incandescent lamp, a sleeve or case having stops to control the extent of outward movement of an inclosed insulating-block, and provided with a socket, combined with the insulating-block having contact-pieces, and with a spring supported in the bottom of the sleeve or case, and acting at one end upon the under side of and moving the said insulating-block outward, substantially as described.

2. The lamp provided at its neck with terminal electrodes and having projections *c c*, combined with a sleeve or case having a groove, *e*, slotted at *n' n'*, to enable the said projections to enter the said groove, and having stops and a socket connected with the said sleeve or case, a spring located in the said sleeve or case and supported by it at or near the said socket, and the insulating-block provided with contact-pieces, whereby when the projections on the neck of the lamp are entered into and made to follow in the groove *e* the terminal electrodes act against the contact-pieces *c' c'* and force the insulating-block back into the sleeve or case, compressing the said spring, the terminal electrodes rubbing or sliding over the contact-pieces as the lamp is being turned to secure it in place, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK SCHAEFER.

Witnesses:
J. H. CHURCHILL,
B. J. NOYES.