(No Model.)

H. P. BROWN.

INCANDESCENT ELECTRIC LIGHT HANGER.

No. 347,767. Patented Aug. 24, 1886.

Fig. 1.

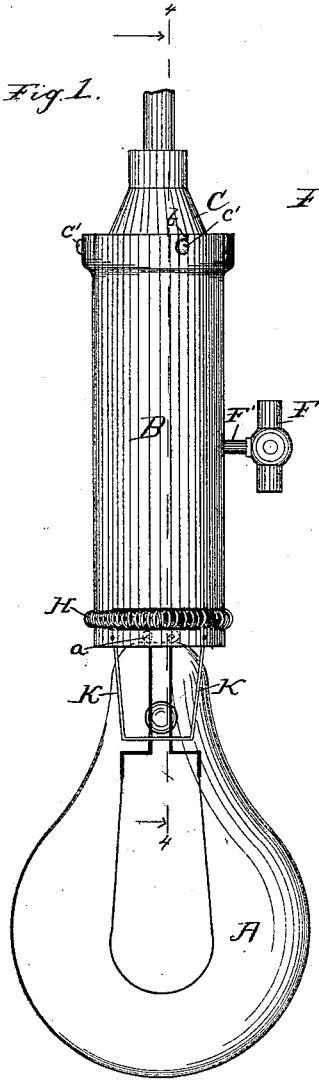


Fig. 2.

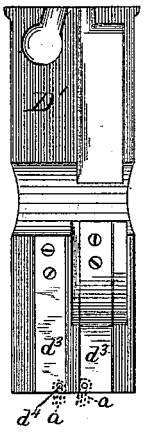


Fig. 3.

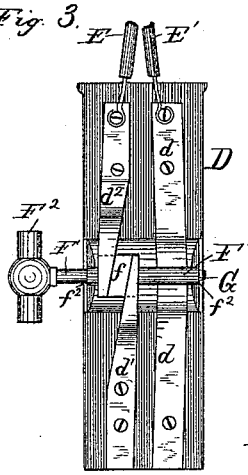


Fig. 4.

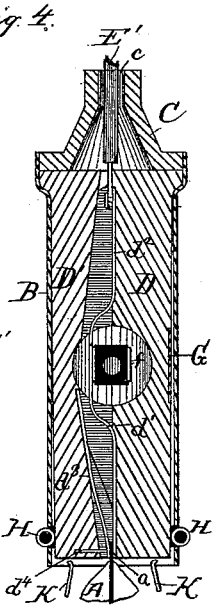


Fig. 7.

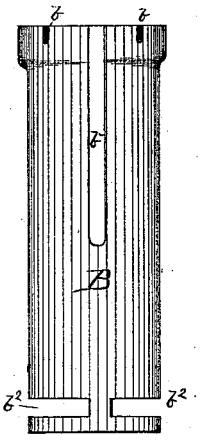


Fig. 6.

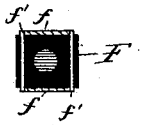


Fig. 8.

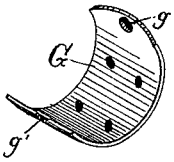
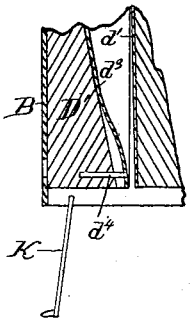


Fig. 5.



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UNITED STATES PATENT OFFICE.

HAROLD P. BROWN, OF CHICAGO, ILLINOIS.

INCANDESCENT-ELECTRIC-LIGHT HANGER.

SPECIFICATION forming part of Letters Patent No. 347,767, dated August 24, 1886.

Application filed March 6, 1886. Serial No. 194,194. (No model.)

To all whom it may concern:

Be it known that I, HAROLD P. BROWN, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Incandescent-Electric-Lamp Hangers, of which the following is a specification.

The object of my invention is to provide a lamp-holder of a cheap and durable construction, to or from which the lamp may be easily and quickly attached or disconnected, and which will at the same time afford a good electrical connection for the terminals of the lamp.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a device embodying my invention. Figs. 2 and 3 are face views of the two clamp-blocks forming the body of the holder. Fig. 4 is a central longitudinal section. Fig. 5 is a detail sectional view showing the clamp-blocks and spring contact-strips in position for inserting or removing the lamps. Fig. 6 is a cross section of the switch or turn-off plug. Fig. 7 is an elevation of the inclosing shell or case, and Fig. 8 is a detail view of the bearing-piece for the shaft of said plug.

In said drawings, A represents an incandescent lamp, and *a a* are its terminals or eyes, by which it is electrically connected in circuit, as well as supported.

B is the outer shell or case of the holder, preferably of cylindrical form with open ends.

C is a cap-piece, preferably of conical form, having a central opening, *c*, for the circuit-wires, and furnished with screws *c'*, the heads of which fit over suitable slots, *b*, in the shell B, by which said shell is attached to said cap C in such manner that the two parts may be readily put together or disengaged from each other.

D and D' are two clamp-blocks or semi-cylindrical pieces, fitting in the shell B, and between which or the contact-strips secured thereto the terminals *a a* of the lamp are embraced. The blocks D D' should be made of wood or suitable insulating material. The block D is furnished with longitudinal recesses or grooves, in which are secured by suitable screws the spring contact-strips or pieces *d*, *d'*, and d^2, the contact-pieces *d* and d^2 being securely connected with the circuit-wires E E'.

F is a switch or turn-off plug, preferably of square or rectangular form in cross-section, secured to the shaft F'. The plug F is best made of rubber or other insulating material, and provided with metal contact-plates *f f* on two of its opposite faces. These metal plates *f f* should not quite cover the faces of the plug, so that when the plug is turned the edges of these plates cannot touch the contact-strips *d'* or d^2. The ends of the spring-contacts *d' d²* are bent up and rest upon the plug F, as indicated in Figs. 3 and 4. The plates *f f* may be conveniently secured to the plug F by rivets *f'*, extending through said plug. The shaft F' is furnished with a turn-off button or handle, F^2, and is journaled in a metal strap or partial band, G, which encircles the block D, and is secured thereto by suitable screws. This bearing-plate has a hole or opening, *g*, at one edge to receive the free end of the shaft F, and a suitable slot, *g'*, at its other edge, which affords a bearing for the other end of the shaft F'. By using a slot, *g'*, to receive the shaft F' at its handle end, said shaft may be readily placed in position after the switch-plug F is secured upon said shaft. The spring contact-pieces *d'* and d^2, bearing against the plug F, will serve to hold the shaft in position in the slotted bearing *g'*. The hole or bearing *g* and the slot *g'* should be somewhat smaller than the shaft F', and the ends of said shaft correspondingly reduced in size to form shoulders f^2 f^2, and thus hold the shaft in position longitudinally. The blocks D and D' are furnished with transverse recesses to give room for the plug F and its shaft.

The clamp-block D' is provided with metal or spring clamp-strips d^3 d^3, which are secured in longitudinal recesses in said block. The free ends of these flat springs d^3 d^3 are provided with openings, through which project the ends of the pins d^4 d^4. The eyes *a a* of the lamp fit over the pins d^4 d^4 when the clamp-blocks D D' are pressed together, and said pins thus serve to hold the lamp in position. The springs d^3 d^3 force the lamp eyes *a a* off over the ends of said pins d^4 d^4 the moment the clamp is loosened, thus permitting the lamp to be removed or again inserted.

The clamp blocks D D' may be pressed or

forced together in any suitable manner. I prefer, however, to employ a spiral spring, H, encircling said clamp-blocks near their end, and fitting in circular slots b^2 b^2, cut in the shell B, so that the spring will press against the blocks D D'. To loosen the clamps the spring H is simply pushed or rolled back out of the slots b^2 b^2 onto the shell B, so that the spring will not bear on the blocks D D'.

The shell or case B is provided with a longitudinal slot, b^3, on one side, to fit over the shaft F', and thus permit the shell to be conveniently slipped over the blocks D D'.

K K are guards secured to the rim of the shell B. Each of these guards K is preferably made of a single piece of spring-wire bent into the form shown in Figs. 1 and 5, the two ends of the wire being inserted through suitable holes in the rim of the shell B and riveted thereto. The lower middle portion of the guard, which bears against the glass case or globe of the lamp, is curved to conform to the shape or curve of said lamp case or globe. These spring-guards K, on opposite sides of the lamp, clamp and brace it between them and serve to steady it.

The flat springs d^3 d^3, in connection with the flat contact-strips d d', form a good electric connection for the terminals of the lamp, as they clamp the flat eyes or loops firmly between them.

I claim—

1. In an electric-lamp holder, the combination, with an inclosing case or shell, of two insulating clamp-blocks, a turn-off plug having a shaft journaled on one of said clamp-blocks, and a spring-contact connected with said plug and the lamp-circuit, substantially as specified.

2. In an electric-lamp holder, the combination, with an inclosing case or shell, of two insulating clamp-blocks, a turn-off plug having a shaft journaled on one of said clamp-blocks, and a spring-contact connected with said plug and the lamp-circuit, one of said clamp-blocks being provided with pins or lugs d^4 d^4, for the lamp-terminals, and springs d^3 d^3, for disengaging said terminals from said pins, substantially as specified.

3. The combination, in an incandescent-lamp holder, of a shell, B, having slots b, with cap C, provided with screws c^2, and clamp-blocks D and D', furnished with contact-pieces connected with the lamp-circuit fitting in said shell, substantially as specified.

4. The combination, with clamp-blocks D D', of an inclosing-shell, B, and a turn-off plug journaled on one of said clamp-blocks, said shell B being provided with a slot, b^3, to fit over the shaft of said turn-off plug, substantially as specified.

5. The combination, with shell B, having slot b^3, of clamp-blocks D and D', turn-off plug F, shaft F', and bearing-plate G, secured to said block D, substantially as specified.

6. The combination, with a pair of clamps furnished with contact-strips, of an incandescent lamp furnished with terminals embraced between said clamps, said contact-strips being connected with the terminals of said lamp, substantially as specified.

7. The combination, with clamp-blocks D and D', of contacts d d', adapted to be clamped against the terminals of an incandescent lamp by said clamp-blocks, substantially as specified.

8. The combination, with clamp blocks D and D', of inclosing-shell B and contact-strips d, d', and d^3, connected with the terminals of the lamp, substantially as specified.

9. The combination, with clamp-blocks D and D', of inclosing-shell B, turn-off plug F, and contact-strips d, d', and d^3, substantially as specified.

10. The combination, with the shell B, of the spring-guards K K, secured to the lower rim of said shell and embracing the lamp, substantially as specified.

11. The combination, with shell B, having slot b^3, of clamp-blocks D and D', turn-off plug F, shaft F', and bearing-plate G, secured to said block D, said bearing-plate G having a slot, g', for a bearing for said shaft at one end, substantially as specified.

12. The combination, with shell B, having slot b^3, of clamp-blocks D and D', turn off plug F, shaft F', bearing-plate G, secured to said block D, and spring contact-pieces d' and d^3, substantially as specified.

13. The combination, with a shell, of a pair of clamp-blocks fitting in the same, and flat contact-pieces d d' d^3, flat strips d^3 d^3, and a turn-off plug, substantially as specified.

14. The combination, with a pair of clamps, one of said clamps being furnished with a lamp-eye retaining pin or projection, of a spring to release said eye from said pin when the clamp-pressure is released, substantially as specified.

15. The combination, with a pair of clamps, of an inclosing-shell, B, having transverse slots b^2 b^2 thereon, and a spring, H, surrounding said shell and fitting in said slots, substantially as specified.

16. The combination, with clamp-blocks D D', of contacts d d' d^3, turn-off plug F, having metal faces f f, shell B, having slot b^2, and spring H, substantially as specified.

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Witnesses:
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