

(No Model.)

M. J. WIGHTMAN.

SWITCH AND HOLDER FOR INCANDESCENT LAMPS.

No. 336,191.

Patented Feb. 16, 1886.

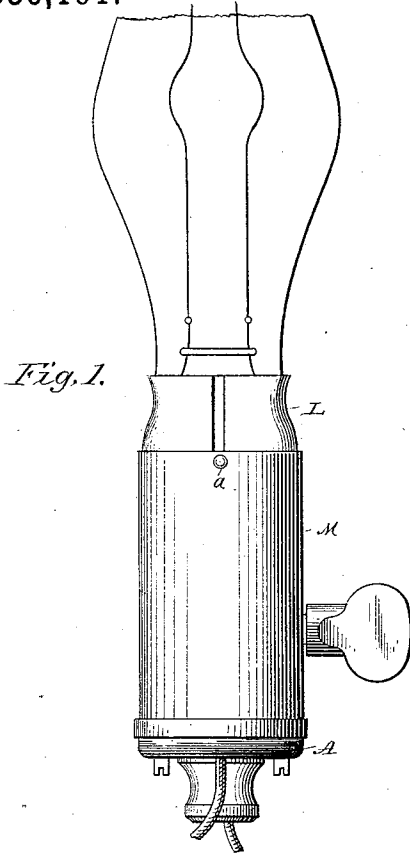


Fig. 1.

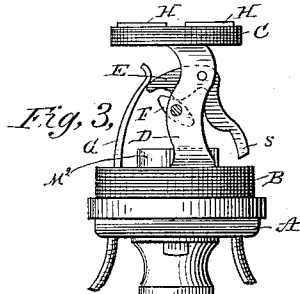


Fig. 3.

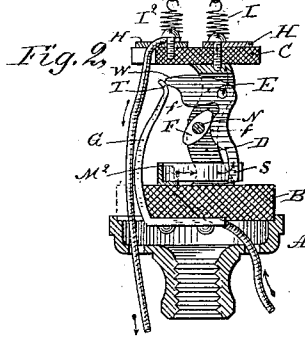


Fig. 2.

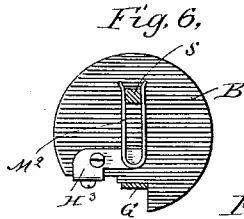


Fig. 6.

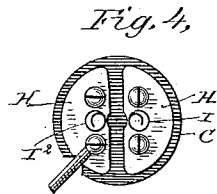
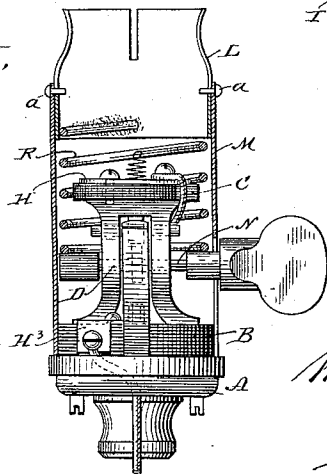


Fig. 4.

Fig. 5.



Witnesses:
Erasmo Stohagen
John Dooney

Inventor:
Merle J. Wightman

By his Attorney: *W. A. Townsend*

UNITED STATES PATENT OFFICE.

MERLE J. WIGHTMAN, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE SCHUYLER ELECTRIC LIGHT COMPANY OF NEW YORK.

SWITCH AND HOLDER FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 336,191, dated February 16, 1886.

Application filed July 8, 1885. Serial No. 170,986. (No model.)

To all whom it may concern:

Be it known that I, MERLE J. WIGHTMAN, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Switches and Holders for Incandescent Lamps, of which the following is a specification.

My invention relates to the construction of a switch and holder for incandescent electric lamps.

The invention consists, first, in a novel construction and arrangement of the switch and its supporting parts with relation to the connection to the lamp.

My invention consists, further, in certain details of construction and combination of parts that will be specified more particularly in the claims.

Referring to the accompanying drawings, Figure 1 is an elevation of a switch and holder constructed in accordance with my invention. Fig. 2 is a side elevation and partial section of the same, the inclosing case or sleeve being removed. Fig. 3 is a side elevation of the switch, showing the same in position where the circuit is broken. Fig. 4 is a plan of the plates upon which the fixed connecting-terminals are mounted. Fig. 5 is a vertical longitudinal section illustrating the construction of the socket or holder, and also showing the switch in edge view. Fig. 6 is a plan of a detail of construction.

A indicates the metallic base-plate or support adapted for connection by a screw or otherwise with a bracket, chandelier, or other support. Secured to said base is a plate, B, of insulating material—such, for instance, as vulcanite—between which and the upper plate, C, of similar material, is interposed the metallic frame D, carrying the switch and its operating mechanism. The upper plate, C, carries the fixed terminals for making temporary connection with the electric lamp. The terminals here shown are mounted on conducting-plates H, screwed to C, and consist of short springs I², terminating in hooks adapted for connection to hooks or eyes at the ends of the metallic conductors of the lamp, as in-

dicated in Fig. 2. The frame D is of conducting material, and is in electrical connection with the terminal I through the screw which serves to hold the plate H upon the non-conducting plate C, and at the same time to secure the latter upon the metallic frame D. The metallic frame is provided, as indicated more clearly in Fig. 5, with two standards or uprights, between which is pivoted a switch-lever, E. The end S of the switch-lever, is adapted to make and break connection with a spring, M², mounted on the non-conducting plate B, as will be presently described. The lever E is operated by a cam, F, carried by a spindle mounted in the standards, and adapted to engage with either of the two projections *ff* formed upon the lever at opposite sides of its fulcrum, so that the spindle may be turned in either direction for the purpose either of opening or closing the switch. This construction of switch, *per se*, forms the subject of claim in another pending application for patent filed by me, and no special claim is herein made to it.

Bearing upon the projecting portion W of the lever E is a spring, G, secured to the base-plate B, and formed, as shown at T, so as to assist in throwing the switch-lever into position for making and breaking the circuit at the moment that the projection W passes the top of the incline, (shown at T.) The spring M² is made, preferably, as indicated in Fig. 6, by bending a piece of metal into the form shown, so that the end S of the contact-lever may enter between the ends and make contact simultaneously with both of them. The spring is soldered to a conducting-plate, H², secured to the insulating-plate B. An electrical connection with the wire supplying current to the lamp is made by clamping the wire against said conducting-plate, as indicated in Fig. 5. The other wire, connected with the supply-conductors, is connected to the plate H, upon which the terminal I² is mounted, the circuit being therefore formed through the spring M², the switch-lever E, the frame D, the terminal I, thence to the lamp, and out by the terminal I².

M indicates a protecting case or sleeve of

metal, secured to the base-plate B or otherwise fixed in position, and L a socket or holder for the lamp. The socket L is preferably made of sheet metal concentric with the sleeve or case M, and is mounted so that it may slide in the top thereof.

R indicates a spiral spring, secured to the sleeve L and resting upon the spindle carrying the cam F, or upon other suitable support, in such way as to tend to raise the holder or socket L from the terminals I I', which constitute the fixed terminals, being mounted upon a suitable support fixed with relation to said socket. Pins *a* pass through the sleeve M into slots in the holder L, so as to prevent the latter from being thrown out of position by the action of the spring R. When a lamp is to be inserted, the socket L is depressed against the action of the spring R, until ready access is given to the fixed terminals I I'. The lamp is then connected with said terminals by means of the hooks or hook-and-eye connections, and the socket being then released the spring R raises the latter and holds the connecting devices in firm connection, at the same time steadying the lamp against lateral movement.

I do not limit myself to any special form of connecting devices, the principle of the invention consisting in the mounting of the socket or holder L upon a spring-support in such way that when the connections are made with the lamp the latter will be forced away from said connections so as to draw the same into firm contact.

What I claim as my invention is—

1. In an incandescent lamp switch and holder, the combination, with the frame having the two uprights or standards and supporting the terminals by which connection is made with

the lamp terminals, of a switch-lever mounted in said standards, and turning in a vertical plane between them.

2. The combination, with the standards mounted on the non-conducting base-plate, of the vertical switch-lever mounted between, and a spring secured to the base and bearing upon the lever, as described.

3. In an incandescent lamp switch and holder, the combination, with the plate carrying the terminals for connection with the lamp terminals, of the supporting-standards carrying an intermediate pivoted switch-lever vibrating on the plane between them and a horizontal spindle provided with a cam for operating said lever.

4. In an incandescent lamp switch and holder having the plates B C, the intermediate frame, D, the switch-lever E. pivoted between the two standards of the frame and provided with the projections *ff*, in combination with the spindle N, carrying a cam for operating said lever, as and for the purpose described.

5. In an incandescent lamp switch and holder, the combination, with the two insulating plates B C, of the intermediate conducting-frame having the two standards and in electrical connection with a connecting-plate or terminal in the top of the upper insulating-plate, a switch-lever mounted between the standards and in electrical connection therewith, and a contact for the lever mounted on the base-plate B, as described.

Signed at Hartford, in the county of Hartford and State of Connecticut, this 23d day of May, A. D. 1885.

MERLE J. WIGHTMAN.

Witnesses:

CHAS. E. DUSTIN,
W. H. NEWELL.