

(No Model.)

E. WESTON.

ELECTRIC LAMP AND HOLDER THEREFOR.

No. 277,645.

Patented May 15, 1883.

Fig. 1.

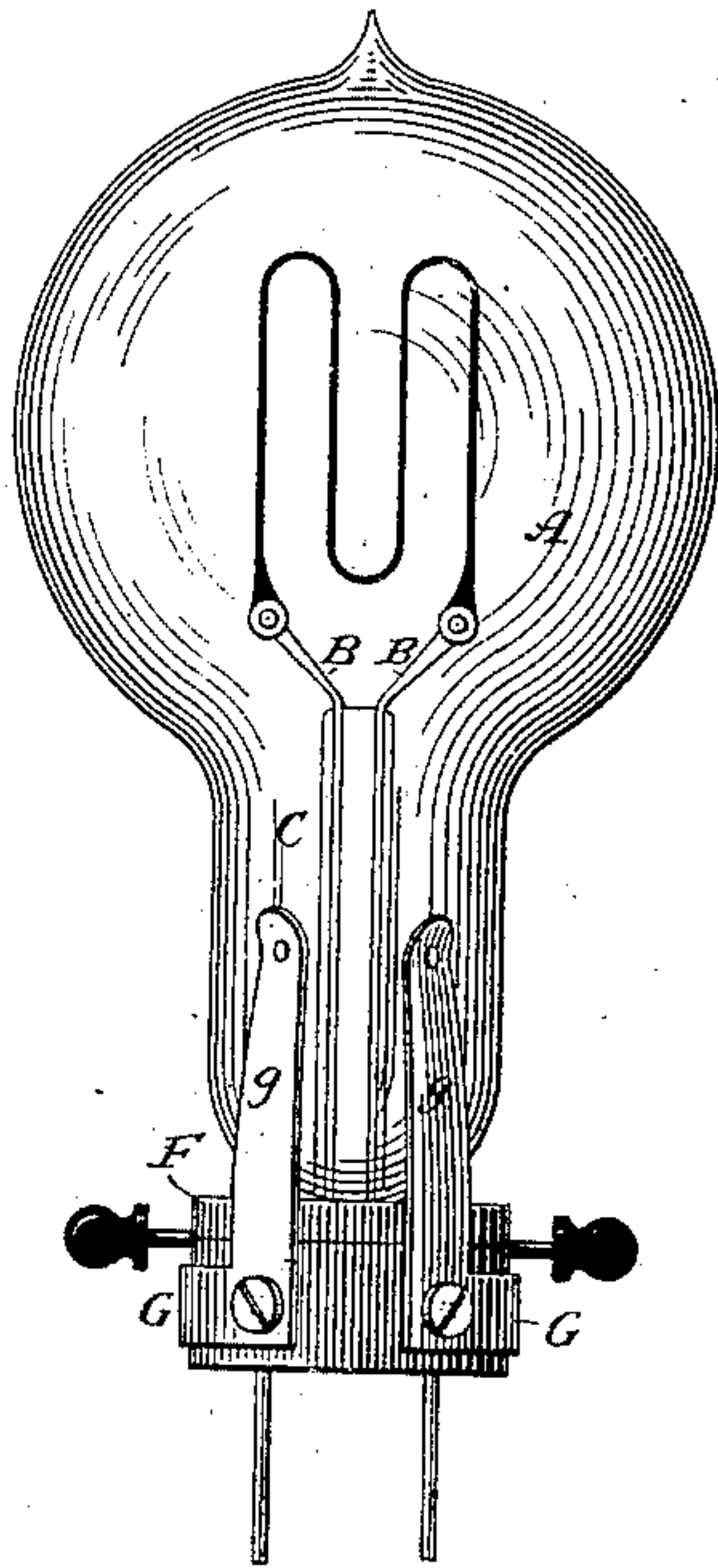


Fig. 2.

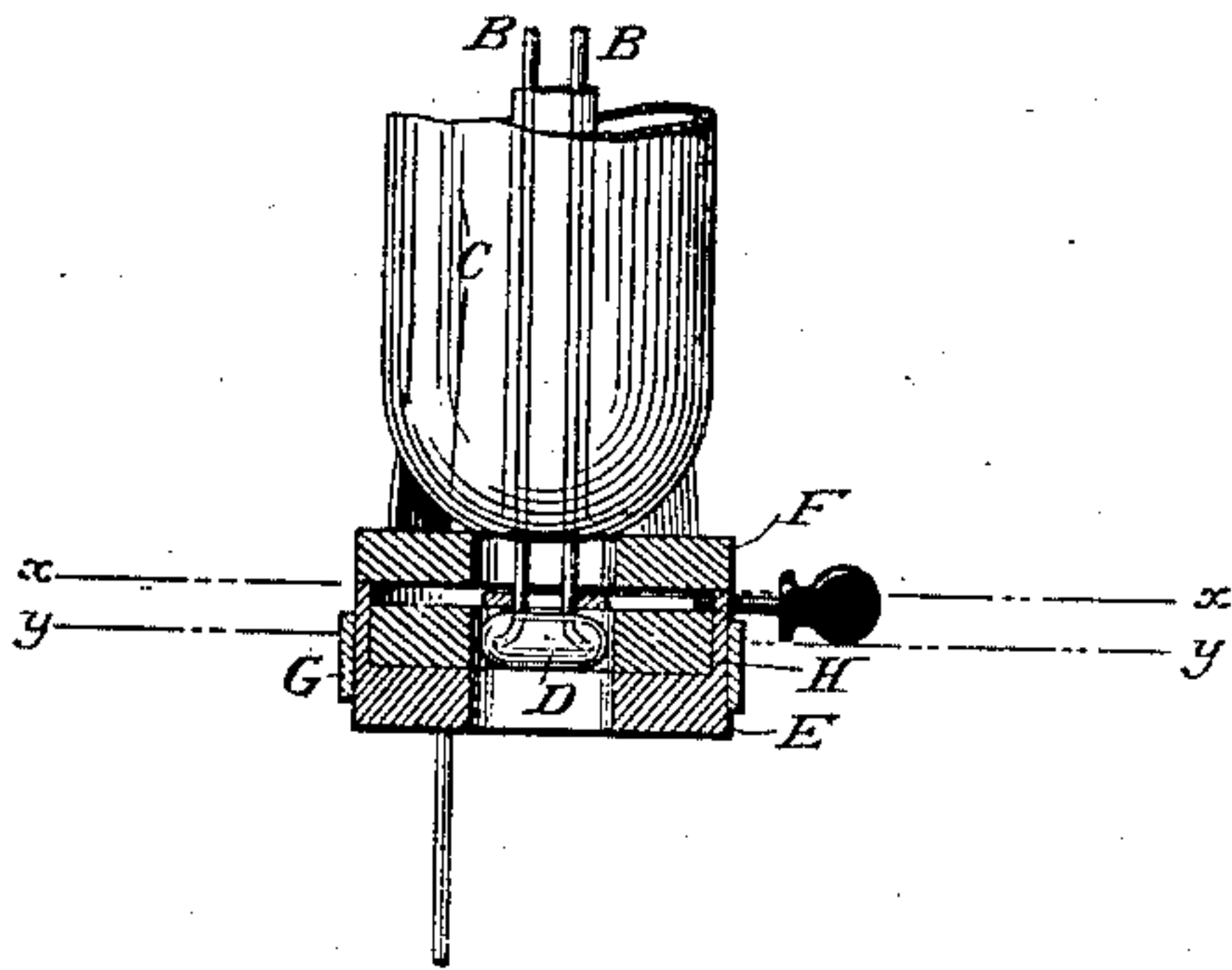


Fig. 4.

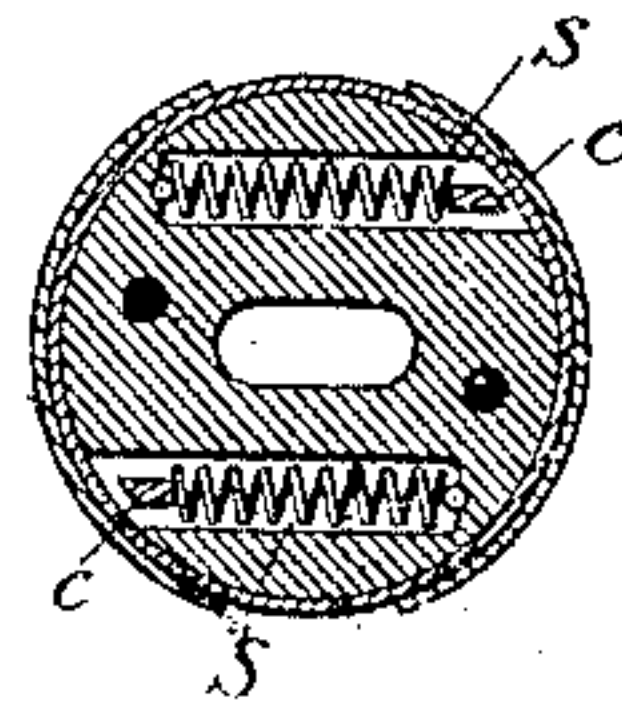
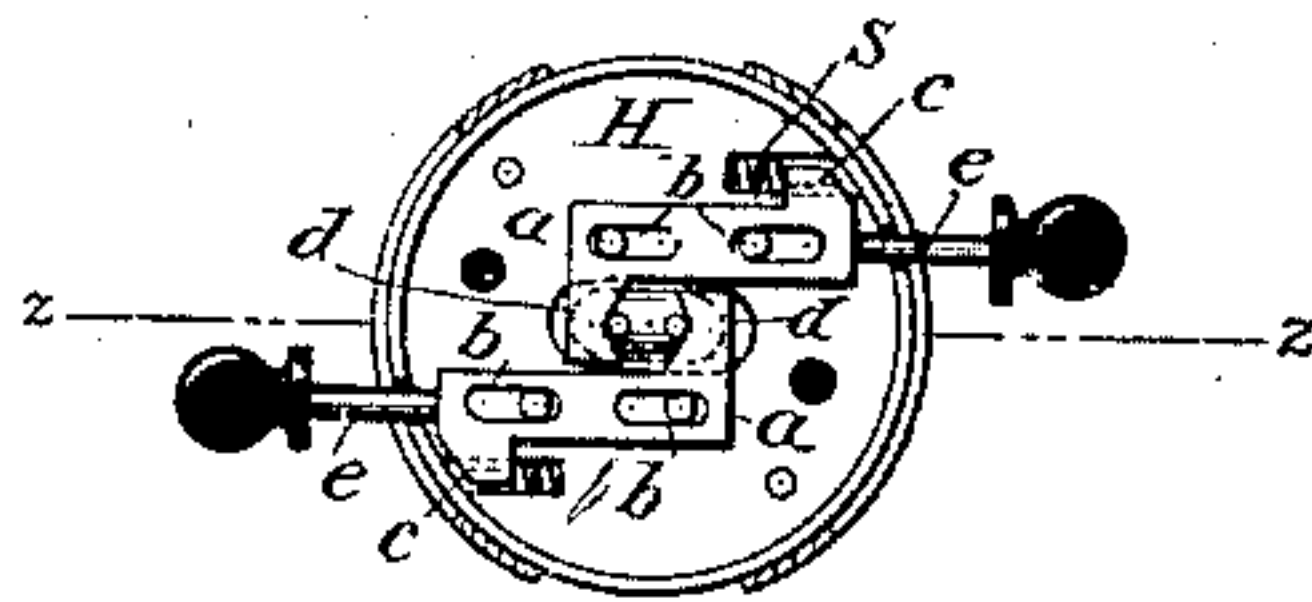


Fig. 3.



Attest:

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# UNITED STATES PATENT OFFICE.

EDWARD WESTON, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE UNITED STATES ELECTRIC LIGHTING COMPANY, OF NEW YORK, N. Y.

## ELECTRIC LAMP AND HOLDER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 277,645, dated May 15, 1883.

Application filed January 19, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD WESTON, a subject of the Queen of Great Britain, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Incandescent Lamps and Holders for the Same, of which the following is a specification.

This invention relates to improvements in the construction of incandescent lamps, and in the sockets or holders designed for use therewith, the object of the improvements being mainly to simplify the construction of the means for retaining the lamps in position and completing the circuit through the same. For this purpose I employ a lamp of the ordinary form, in which the conductors are sealed into the glass of the globe, and extend from the bottom of the neck. I cut off the conductors a short distance from the lower end of the neck—say half or three-quarters of an inch—and secure to their ends a short piece of glass or any other insulating material. This connecting piece or bar of insulating material I utilize with a socket of proper construction for holding the lamp in position, and in the socket I provide contact-plates which press against the exposed portions of the conductors, and complete the circuit through the lamp.

In order to more fully illustrate the details of construction, reference will be made to the accompanying drawings.

Figure 1 represents in elevation a lamp and socket constructed in accordance with the invention. Fig. 2 is a view of the lower portion of the lamp and of the holder, the latter being shown in section taken on line *z z* of Fig. 3. Fig. 3 is a part section of the holder, taken on line *x x* of Fig. 2. Fig. 4 is a section of the holder on line *y y* of Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

A designates a lamp-globe of any ordinary design, and B B the carbon-supporting conductors sealed therein. It is desirable that the conductors issue from adjacent points on the globe—as, for example, in the present instance, where they extend from the lower end of the neck C. The conductors B should extend a reasonable distance—say half or three-quarters of an inch—from the globe, and as

nearly parallel as practicable. Their ends are then connected by a cross-piece, D, of some insulating material. This may be a simple piece of wood or similar substance, with holes drilled in it for the passage of the wires, or split and clamped onto the wires by a screw. I prefer, however, to use for this purpose a small mass of glass, which may be either wound on, molded, or otherwise applied to the wires. When glass is used the ends of the wires may be slightly bent, as shown in Fig. 2.

With a lamp thus constructed I employ a socket or holder containing movable plates, clamps, or their equivalents, that retain the lamp in position by engaging or locking with the cross-piece D, the most convenient form of this holder of which I am aware being that illustrated in the drawings.

E is a cup-shaped insulating-base with a cover, F, of a similar material.

G G are spring-plates with arms *g g*, that are secured to the base E and serve as a socket for the neck of the globe.

H is a plate of insulating material, upon which are arranged two slides or plates, *a a*. The slides *a a* are restricted to a parallel movement on the plate H by slots *b b*, through which pass pins set in the plate. Short ears *c c* on the slides *a a* project down through slots in the plate H into recesses in the under side of the plate, in which are coiled springs S S. The slides *a a* are provided with hooks or arms *d d* and with pins *e e*, inclosed in insulating-tubes and having insulated heads, the object of the pins being to afford a ready means of operating the slides without touching any metallic portions of the holder included in the circuit.

Through the cover F, plate H, and partly or entirely through the lower part of the base E is an opening, of a size and shape to admit the cross-piece D of one of the lamps.

To attach a lamp to the holder the insulated pins *e e* are pressed inward, which separates the arms or hooks *d d*. The cross-piece D of a lamp is then inserted in the opening through the holder, and the pins *e e* freed. The slides being forced back by the springs S S, the arms *d d* come together above the cross-piece D, until they encounter the conductors B B. The line-wires are brought up through the base E



and connected to the springs S, so that the circuit is completed to the conductors B by means of the slides *aa*.

It is to be observed that the invention is not restricted to the specific construction of the holder above described, but includes any other combination of parts that operates in substantially the same way to lock the lamp in the socket, by locking, grasping, or engaging with the cross-piece D.

The socket is to be used in the usual way, in conjunction with a bracket-arm or similar support, and may be varied in design to conform to lamps of other shapes than that shown.

I would state that features herein shown or described, but not specifically claimed, will be made the subject of other applications.

What I now desire to secure by Letters Patent is—

1. The combination, with the supporting-conductors of an incandescent lamp, of an insulating cross-piece fixed on the conductors outside the globe, substantially as and for the purpose set forth.

2. The combination, with an incandescent lamp having an insulating cross-piece secured to the conductors outside and at a short distance from the globe, of a socket or holder and clamping or locking devices contained therein, for retaining the lamp in position by locking, grasping, or engaging with the cross-piece in substantially the manner set forth.

3. The combination, with an incandescent lamp having an insulating cross-piece secured to the conductors outside and at a short distance from the globe, of a socket or holder, and clamping or locking devices forming the terminals of an electric circuit and contained within the holder, the said locking devices being adapted to make contact with the conductors of the lamp, and to retain the lamp in position by locking, grasping, or engaging

with the cross-piece in substantially the manner set forth.

4. The combination, with an incandescent lamp having an insulating cross-piece secured to the conductors outside and at a short distance from the globe, of a socket or holder, and movable plates, jaws, or clamps contained therein, and adapted to close over the cross-piece, and thereby lock the lamp in the holder, as described.

5. The combination, with an incandescent lamp having an insulated cross-piece secured to the conductors outside and at a short distance from the globe, of a socket or holder, spring slides or jaws contained therein, and insulated pins projecting from the holder for operating said slides or jaws, whereby they may be opened for the insertion of the insulating cross-piece and caused to close over the same and lock the lamp in the holder, as described.

6. The combination, with an incandescent lamp having a cross-piece of insulating material secured to its conductors outside and at a short distance from the globe, of a socket or holder, sliding plates or jaws capable of closing over the cross-piece and locking the lamp in the holder, pins extending from the sliding plates or jaws for opening the same, and springs for forcing the same together over the cross-piece and into contact with the conductors, as and for the purpose set forth.

7. The combination, with the conductors of an incandescent lamp, of a mass or bar of glass molded or otherwise fixed on the said conductors at a short distance from the globe, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 12th day of January, 1883.

EDWARD WESTON.

Witnesses:

PARKER W. PAGE,  
W. FRISBY.