

(No Model.)

E. WESTON.
ELECTRIC LAMP AND HOLDER.

No. 277,646.

Patented May 15, 1883.

Fig. 1.

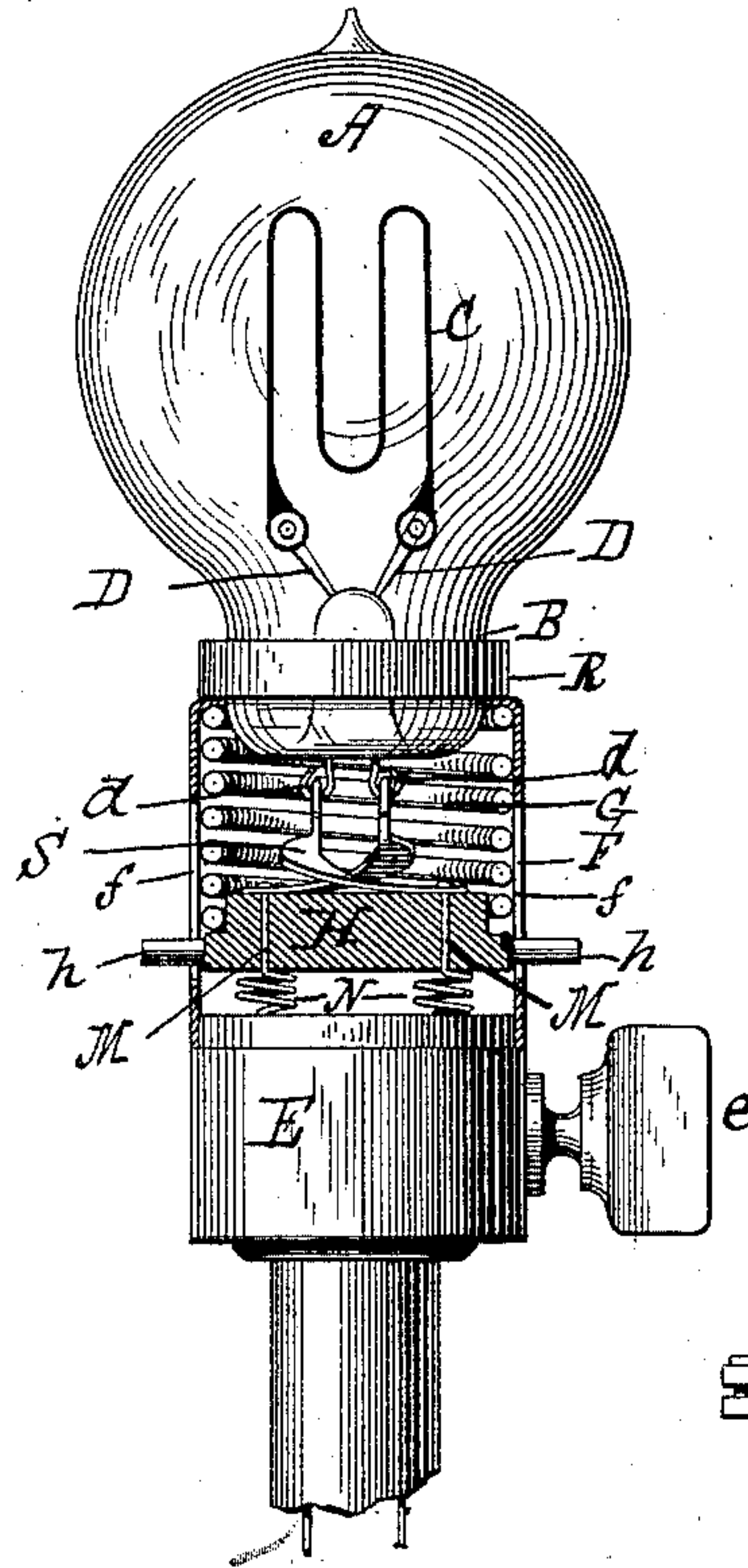


Fig. 3.

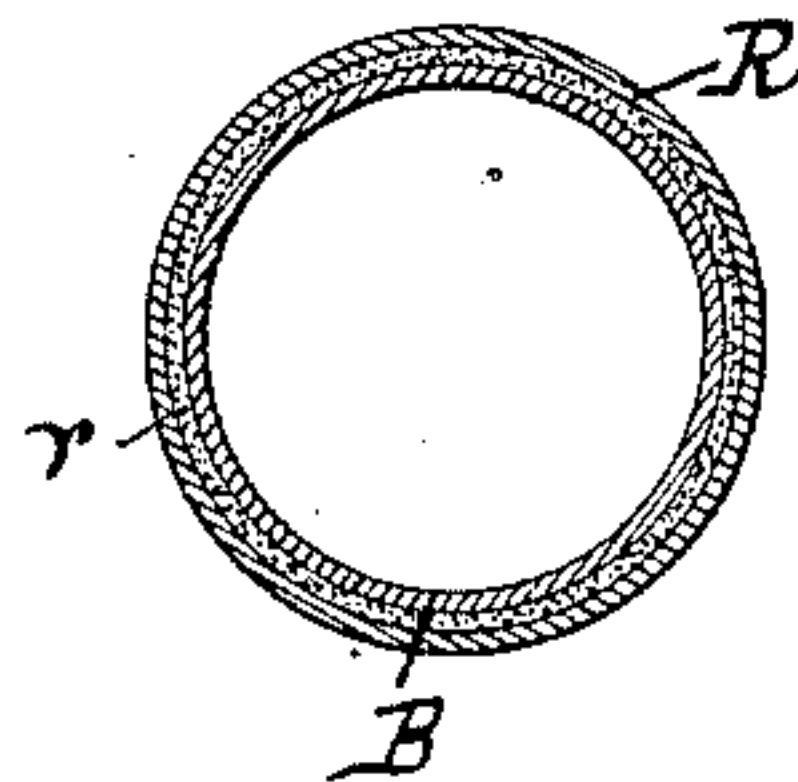


Fig. 4.

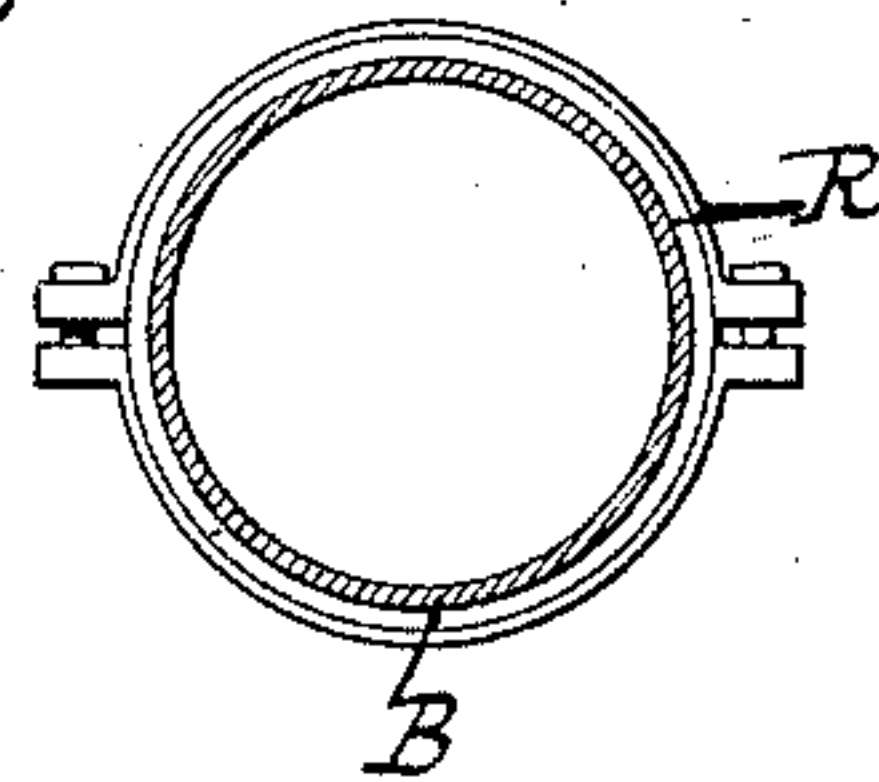
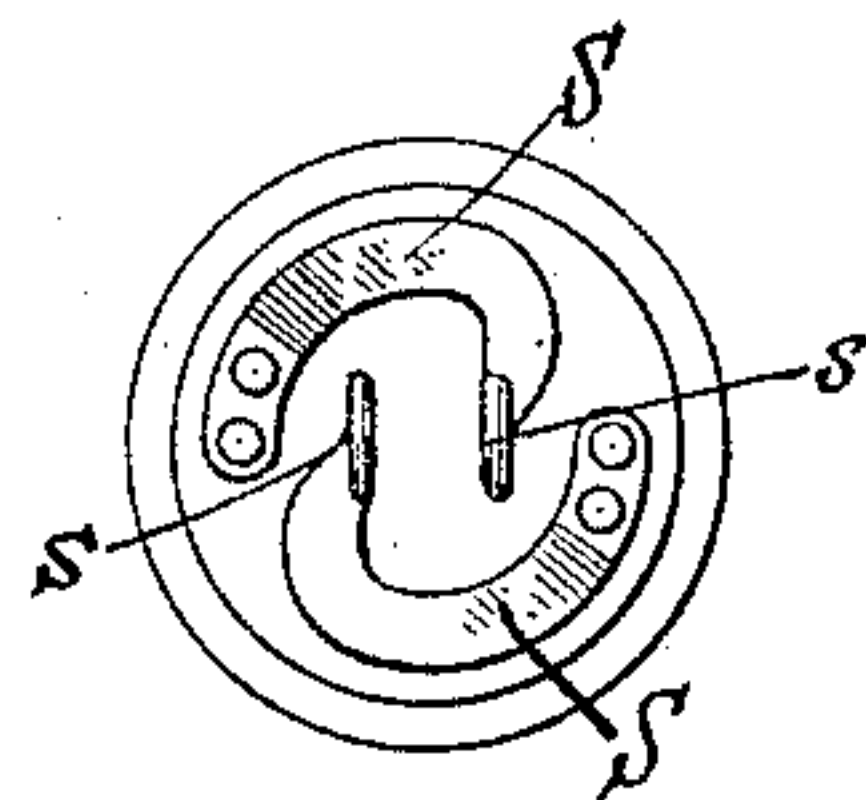


Fig. 2.



Attest:

Raymond F. Barnes.
C. G. Petersen

Inventor:

Edward Weston
By Parker W. Page
att'y.

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.

SPECIFICATION forming part of Letters Patent No. 277,646, dated May 15, 1883.

Application filed December 5, 1882. (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 Electric Lamps and Holders therefor, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention involves improvements in supporting devices for incandescent lamps; and it consists, first, in the combination, with a lamp-globe, of a band or ring, which is slipped over the neck or contracted portion of the globe; secondly, in a socket or holder for lamps thus equipped, in which are a spring or springs for holding the lamp in place, and springs or their equivalents for forming the connections to the conductors of the lamp.

The invention further comprises improvements in the details of the holder, the nature and purpose of which will be hereinafter set forth.

Incandescent lamps as commonly manufactured consist of a receiver from which extends a contracted portion or neck. In this the carbon is mounted on wires that pass out through the neck. It is a matter of considerable difficulty to manufacture lamps of this character of a standard shape and size, as a portion of the steps in their production are effected by glass-blowers, and as these inequalities in shape make it difficult to fit the lamps properly in holders it is very desirable that some compensation should be made for them. This I effect by securing to the neck of a lamp-globe a band or ring of metal or other material at a certain distance above the point where the conducting-wires are bent into hooks or eyes. This band, when the lamp is inserted in its socket, serves as a shoulder, resting on the rim of the socket, and preventing the lamp from entering beyond a certain point. The sockets for holding these lamps contain spring-hooks that engage with the hooks or eyes formed in the lamp-wires and draw the lamp down into the socket. The requisite tension may be attained by adjusting the position of the ring or band on the neck, so that the fitting of any lamp to a socket is made a very simple matter.

In the drawings hereto annexed the details of the construction of a lamp and socket are illustrated.

Figure 1 is a view in elevation of a lamp and a part sectional view of its holder. Fig. 2 is a plan view of a part of the holder and the circuit-terminals. Fig. 3 is a section of the neck and ring applied thereto, and Fig. 4 is a modified form of ring or band.

The lamp in the present instance has a rounded globe, A, with a neck, B. The conducting-wires DD, supporting the carbon C, are sealed in the end of the neck B, and are bent round into eyes *d d* close to the glass.

The holder consists of a base, E, adapted for attachment to a pipe or bracket, and containing a switch, which is operated by a key, *e*. Above the base is a cylindrical case, F, in the top of which is an opening of a slightly greater diameter than that of the necks of the lamps. Slots *f f* are formed in opposite sides of the case F, and a plate of insulating material, H, having projections or pins *h h*, which pass through the slots *f*, is inserted in the case F, as shown. Plate H is forced downward by a spiral spring, G, secured in any convenient manner within or without the case F.

To the upper face of plate H are secured flat springs S, bent round, as shown in Fig. 2, and provided with hooks or eyes *s*. To these springs are connected conductors M M, that pass down through the plate H, below which they are coiled in spirals N, and then connected with the switch terminals, or to the line-wires if no switch be used.

A lamp may be inserted in this holder by raising the plate H by means of the pins *h* and locking together the hooks *s* and the hooks *d* on the lamp. The length of the necks, however, is apt to vary considerably, though it is a comparatively easy matter to form the necks of the same diameter. To obviate this difficulty, as well as to provide a ready means for compensating for varying tensions of the springs G and S, I fit to the neck a ring or band, R, which may be of metal or other material. This band is simply slipped over the neck with a strip of asbestos paper, *r*, or is split in one or two places, as shown in Fig. 4, and provided with means for clamping it around the neck. When the lamp is in place, the band

R rests upon the rim of the case H, holding the lamp securely, and by its position with respect to the hooks *d d* determining the tension of the springs G and S.

5 Any other arrangement of springs for drawing the lamp into the holder may be used in lieu of that described, and many modifications of the present arrangement which do not affect its action are possible. As an instance, the
10 springs S may be simple hooks, though springs are better, for the reason that they preserve better contact, while the ring or band R may be greatly varied in design.

What I claim is—

15 1. The combination, with an incandescent lamp having a contracted portion or neck with conducting-wires sealed therein, of a detachable or adjustable band secured upon the surface of said neck, for the purpose set forth.

20 2. A holder for incandescent lamps, consisting of a cup or case provided with a seat for the lamp, an insulated plate vertically movable within the case, terminal hooks on the plate, and a spring arranged above the plate
25 and operating to force it downward, these parts being constructed in substantially the manner described.

3. A holder for incandescent lamps, consisting of a base containing a switch, in combination with a cup or case provided with a seat 30 for the lamp, an insulating-plate carrying spring terminal hooks and vertically movable within the case, and a spring for forcing the plate downward in the socket, as set forth.

4. The combination, with a case or cup for 35 holding an incandescent lamp, of an insulating-plate vertically movable therein, terminal hooks on said plate, extensible conductors connected therewith and to the bottom of the case, and a spring for forcing the plate downward 40 in the socket.

5. The combination, with an incandescent lamp having an attachable or adjustable ring or band upon its neck, of a socket or holder 45 containing spring terminals adapted to engage with the conductors of the lamp and hold the lamp in position, substantially as described.

In testimony whereof I have hereunto set my hand this 27th day of November, 1882.

EDWARD WESTON.

Witnesses:

RAYMOND F. BARNES,
W. FRISBY.