W. S. RYAN.

ELECTRIC LIGHT ATTACHMENT.

APPLICATION FILED OCT. 9, 1911.

1,017,173. Patented Feb. 13, 1912.

Fig: 1.

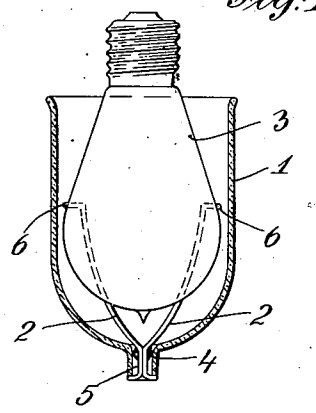


Fig: 2.

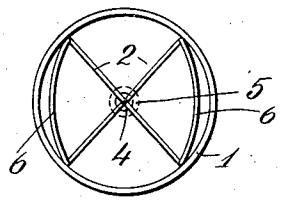


Fig: 3.

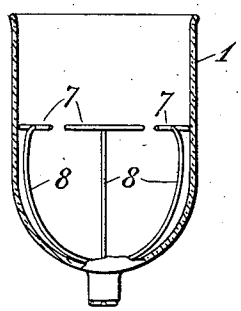


Fig: 4.

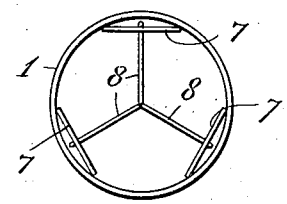


Fig: 5.

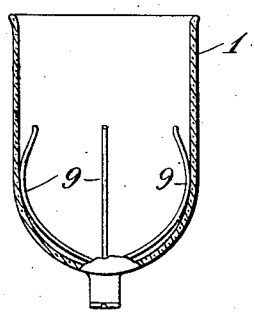
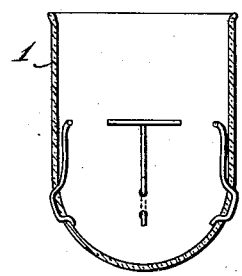


Fig: 6.



Witnesses:
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By his Attorney
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UNITED STATES PATENT OFFICE.

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ELECTRIC-LIGHT ATTACHMENT.

1,017,173. Specification of Letters Patent. Patented Feb. 13, 1912.

Application filed October 9, 1911. Serial No. 653,582.

To all whom it may concern:

Be it known that I, WALTER S. RYAN, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented a new and useful Improvement in Electric-Light Attachments, of which the following is a full, clear, and exact description.

My invention relates to so-called removable cover shades for incandescent electric lamps, which may be of different color from that of the lamp bulb and are designed to be readily attached to and detached therefrom.

By my invention I secure a series of advantages which so far as I am aware have not heretofore been realized in such structures. Among them are the following: The cover attaching or holding devices are entirely out of sight and protected from the weather. The outside of the shade is perfectly smooth, presenting no surface to accumulate dust or dirt which would have a tendency to dull the lamp. The shade may be attached to and detached from the lamp by simply a push and a pull movement with one hand only. This is an important feature since these devices have frequently to be applied to or removed from lamps located on the outside of buildings and at great altitudes so that the workmen require one hand for their own support. The shades are so made that any rain or other water which may get into them will drain away. Thus they automatically free themselves from snow and rain. The entire bulb of the lamp or a part of it only may be covered by the shade, as desired.

In the drawings I illustrate several different forms in which the invention may be constructed. They all embody the controlling features, that is to say, the shade is held to the lamp bulb by suitably constructed and arranged springs which are located on the interior of the shade and are supported by it, so that the shade during application to the lamp is simply pushed upon it, whereby the springs are spread apart and put under tension by the passage of the largest diameter or the equator of the lamp bulb past them, and they then close toward one another again about the constricted part of the bulb above the equator and exert a gripping action thereon, thus holding the shade firmly to the bulb, but it may be readily detached therefrom by simply pulling the shade off from the bulb whereby the springs will expand again and thus release the shade.

In the drawings, Figure 1 illustrates a vertical sectional view of the shade with a lamp bulb in elevation therein; Fig. 2 illustrates a plan view looking into the open end of the shade shown in Fig. 1; Fig. 3 illustrates in vertical section a modified construction, the springs being shown in elevation; Fig. 4 illustrates a plan view of the form shown in Fig. 3; Figs. 5 and 6 illstrate vertical sectional views of still other modifications, the springs in both figures being shown in elevation.

In all of the figures the shade is represented at 1, the springs which are supported by the shade at 2, and the lamp bulb at 3.

In Figs. 1 and 2 the springs are shown as triangular in general shape, the lower members of each triangle being drawn together at the bottom of the shade and there held by a drop of solder 4. The very ends of the springs are then passed through a hole 5 in the bottom of the shade and on the outside may be spread to the right and left over the lower projecting end of the shade, thus firmly holding the springs in place. The upper or cross member 6 of each of the springs is the resilient part which impinges upon the bulb of the lamp and they are so proportioned relative to the inside of the shade that their ends where they join the inclined members of the spring of which they form part rest against and are supported by the inside wall of the shade. In Figs. 3 and 4 somewhat similar springs are employed. There are, however, three instead of two of them in each shade and each spring has a resilient cross bar 7 at the upper end and a single supporting member 8 for each cross bar, the cross bars resting at their ends against the inner wall of the shade the same as before and the lower ends of the members 8 are all gathered together and passed through the hole in the bottom of the shade and clenched over the lower end thereof; also as before, they may be additionally fastened with solder, if desired.

In Fig. 5 I show a construction in which there are three springs fastened at the bottom of the shade as before, but they have no cross bar at their upper ends, on the contrary, they are so shaped that they impinge against the inner wall of the shade about half way of their length at say the point 9,

thus their upper ends which curve inwardly into contact with the bulb of the lamp are given the desired stiff spring action, whereby the bulb will be firmly gripped.

In Fig. 6 I show a construction somewhat resembling that shown in Figs. 3 and 4, except that the lower ends of the springs are supported by being passed through holes made in the side of the shade, as shown, and clenched over upon its inside. In this construction the springs get their bearing against the inside of the shade and thus have the requisite stiffness, at the point where they again pass through the wall of the shade from the outside to the inside.

It will be obvious to those who are familiar with such matters that modifications of the details of construction may be adopted without departing from the essentials of the invention. It will also be noted that under my invention the shade may be made of any preferred size, so that it will cover a part only or the whole of the lamp bulb.

I claim:

1. A cover shade embodying a translucent, cup-shaped, solid walled body part, and resilient holding devices on the inside of the body part adapted to hold the same to a lamp bulb, said devices being supported at their lower ends by the body part and given stiff spring action by contact with its interior walls above their ends.

2. A cover shade embodying a translucent, cup-shaped, solid walled body part having resilient holding devices adapted to hold the same in position upon a lamp bulb, each of said holding devices embodying a downwardly extending member supported at its lower end by the body part and a horizontally extending member which engages with the interior walls of the body part.

3. In a cover shade for electric lamps, a translucent cup-shaped, solid walled body part having a perforation in its bottom, resilient holding devices for the body part embodying members which pass through said perforation and are bent against the appropriate outer surface of the body part and other members attached cross-wise of the first named members and which are put under tension and caused to grip the lamp bulb by engaging with the inner walls of the body part.

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

WALTER S. RYAN.

Witnesses:

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EDWIN F. VALENTINE.