A. P. STORRS.

SHADE HOLDER.

APPLICATION FILED FEB. 1, 1915.

1,213,293. Patented Jan. 23, 1917.

Fig. 1

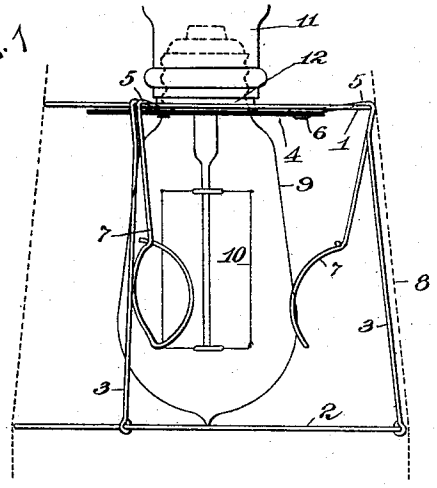


Fig. 2

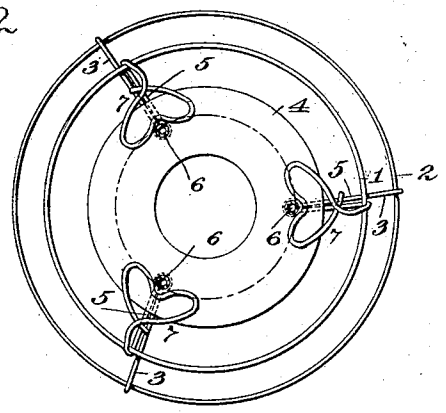
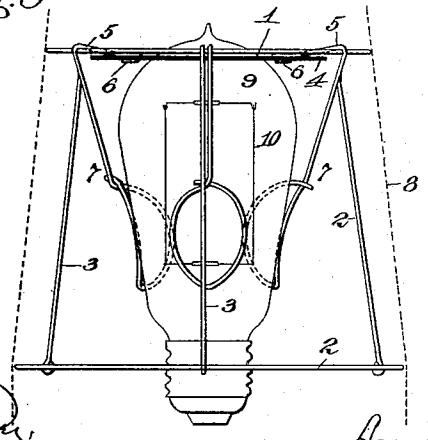


Fig. 3



Witnesses:

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THE NORRIS PETERS CO., PHOTO-LITHO WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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SHADE-HOLDER.

1,213,293. Specification of Letters Patent. Patented Jan. 23, 1917.

Application filed February 1, 1915. Serial No. 5,447.

To all whom it may concern:

Be it known that I, AARON P. STORRS, a citizen of the United States, and resident of Owego, county of Tioga, State of New York, have invented a certain new and useful Shade-Holder, of which the following is a specification.

The object of this invention is to provide a shade holder for incandescent electric lamps of pear shape, or other shape in which the point of greatest diameter does not coincide with the center of the filament, and in which the lamp may be used either base up or base down, with the filament in substantially the center of the shade, in either position.

A further object is to improve the details of construction so that the holder will be cheap and durable, and in which there will be no danger of short circuits.

These and further objects will more fully appear from the following specification and accompanying drawings considered together or separately, in which:

Figure 1 is an elevation of a device according to one embodiment of the invention, used in connection with a pear shape incandescent lamp supported in the socket, with the base up; Fig. 2 is a plan view of the same looking from the bottom; and Fig. 3 is a view similar to Fig. 1, but with the device attached to a lamp with the base down.

In all views like parts are designated by the same reference characters.

The embodiment chosen for illustration comprises a frame for supporting the shade, and having means for engagement with the lamp. This frame is made up of an upper annulus 1 and a lower annulus 2, with suitable connecting means. These annuli are conveniently made of wire bent to circular form with the ends soldered together. Preferably the lower annulus is larger than the upper annulus to accommodate itself to the conical shape of the shade. These two annuli are connected together by suitable means, such as filamentous stays or braces 3 which constitute connecting members. In connection with the parts already described is a collar 4. This collar is preferably made of insulating material. Suitable materials are well known varieties of insulating fiber or sheet mica. This collar 4 has a center opening, see Fig. 2, of suitable size to engage with either end of the lamp in the manner and for the purposes to be hereafter described. The collar is connected to the upper annulus 1 by suitable means, such as the supports 5. These supports are preferably made integral with the wires forming the stays 3. The details of construction are preferably as follows: One end of each wire is bent around the lower annulus 2 and secured thereto by solder. The wire is connected to the upper annulus 1 by solder, and is bent at a substantially right angle inward to connect with the collar and is secured thereto by means of an eyelet 6. The wire is then bent around the eyelet and brought back to the upper annulus 1 to which it is secured by solder.

In connection with the parts already described is a plurality of spring arms 7. These arms are preferably made integral with the wires out of which the stays 3 and supports 5 are made. The ends of these arms are bent to the form of leaves as shown, to engage with the sides of the lamp.

The shade 8 is supported by the frame as shown in broken lines. The frame is used in connection with a suitable lamp as 9 having a filament as 10. The lamp is supported within a suitable socket as 11. When the device is used in connection with a lamp the base of which is up as in Fig. 1, the lamp is introduced through the opening in the collar 4 and is then screwed into the socket. The spring arms 7 engage with the sides of the lamp. The position of the engaging parts of the arms is such that they will come in contact with that part of the lamp above the point of greatest diameter. The engagement of the arms with this part of the lamp will tend to raise the frame and will engage the collar 4 with the socket 11. The socket usually has protruding from it a portion of the insulating lining 12, but in some cases sockets are made which do not have the projecting lining. In this case

the collar may come in contact with the metal part of the socket. This will not be objectionable because the collar being of insulating material no short circuits will develop. When the frame is used in connection with a lamp with base down as shown in Fig. 3, the lamp is introduced within the frame and the upper end of the lamp enters the opening in the collar 4. The spring arms 7, as before, will engage with that portion of the lamp beyond the point of greatest diameter, and the tendency will be to force the collar against the lamp.

Irrespective of whether the lamp is used base up or base down, as shown in Fig. 3, the filament 10 will be substantially within the center of the frame. In this form of lamp the center of the filament is to one side of the center of the greatest diameter of the lamp. Other forms of lamps which are not pear shape, but which have the same characteristics of the greatest diameter being on a line which does not coincide with the center of the filament, will produce the same effect. The collar 4 engaging with either end of the lamp and being held in such a position by means of spring arms 7 will constitute an abutment. The action of the spring arms and the collar will be to hold the frame rigidly upon the lamp.

The collar 4 will act as a shield to reduce the amount of light projected upward and cause most of the illumination to be projected downward and outward.

In accordance with the provisions of the patent statutes, I have described the principles of my invention together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is merely illustrative and that the invention may be carried out in other ways.

Having now described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, braces connecting the annuli, a collar of insulating material having an opening adapted to engage with either that end of the lamp through which the wires enter, or with the end opposite thereto and supported from arms carried by one annulus, and spring arms carried by the same annulus adapted to engage with the sides of the lamp.

2. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, filamentous members bent back from one annulus to form spring arms and adapted to engage with the sides of the lamp, and a collar of insulating material, the intermediate portions of the members being connected to the collar, said collar having an opening adapted to engage with either that end of the lamp through which the wires project, or with the end opposite thereto.

3. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, braces connecting the annuli, a disk of yielding material having an opening adapted to engage with either that end of the lamp through which the wires enter or with the end opposite thereto and supported at its outer edge on arms carried by one annulus, and spring arms carried by the same annulus adapted to engage with the sides of the lamp.

4. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, braces connecting the annuli, a collar of yielding insulating material having an opening adapted to engage with either that end of the lamp through which the wires enter or with the end opposite thereto and supported from arms carried by one annulus, and spring arms carried by the same annulus adapted to engage with the sides of the lamp.

5. A shade holder having a frame, a shield carried by the frame, said shield being adapted to engage a lamp bulb whether the latter is in an upright or in a pendant position, elastic means carried by the frame for holding the bulb in engagement with the shield, the parts being so proportioned and arranged that the source of light will assume a central location with the holder irrespective of the position of the holder relatively to the lamp.

6. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, braces connecting the annuli, a shield of insulating material having an opening adapted to engage with either that end of the lamp through which the wires enter or the end opposite thereto and supported from arms carried by one annulus, and spring arms carried by the same annulus adapted to engage with the sides of the lamp.

7. A shade holder for incandescent electric lamps, said holder comprising a frame composed of filamentous annuli, filamentous members bent back from one annulus to form spring arms and adapted to engage with the sides of the lamp, and a shield of insulating material, the intermediate portions of the members being connected to the shield, said shield having an opening adapted to engage with either that end of the lamp through which the wires project, or with the end opposite thereto.

8. A shade holder for incandescent elec-

tric lamps, said holder comprising a frame composed of filamentous annuli, braces connecting the annuli, a shield of yielding insulating material having an opening adapted to engage with either that end of the lamp through which the wires enter or the end opposite thereto and supported from arms carried by one annulus, and spring arms carried by the same annulus adapted to engage with the sides of the lamp.

This specification signed and witnessed this 28th day of January, 1915.

AARON P. STORRS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."