

H. C. HAWKS.
SHADE HOLDER.
APPLICATION FILED MAR. 25, 1910.

998,896.

Patented July 25, 1911.

Fig. 1.

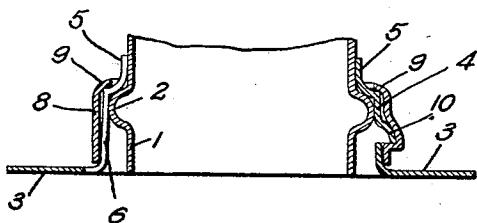


Fig. 2.

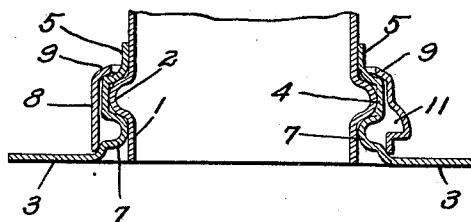


Fig. 3.

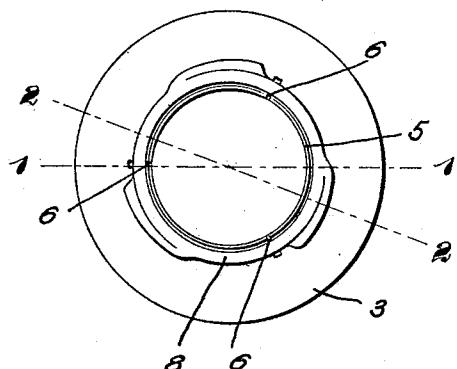


Fig. 4.

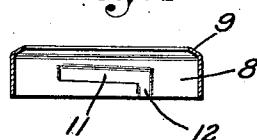
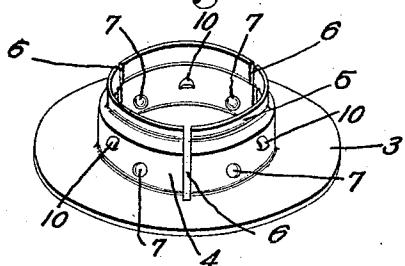


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SHADE-HOLDER.

998,896.

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To all whom it may concern:

Be it known that I, HORATIO C. HAWKS, a citizen of the United States, and a resident of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Shade-Holders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to improvements in shade holders being more particularly intended to provide a simple but effective means for attaching a shade to an incandescent electric lamp socket.

The invention will be best understood by reference to the following description when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings: Figure 1 is a sectional elevation on an exaggerated scale showing the shade holder applied to the walls of an ordinary incandescent lamp socket, the section being taken on the line 1—1 in Fig. 3; Fig. 2 is a similar sectional elevation on the line 2—2 in Fig. 3; Fig. 3 is a plan view of the shade holder and locking collar removed from the lamp socket; Fig. 4 is a section taken through the locking collar; and, Fig. 5 is a perspective view of the shade holder.

Referring to the drawings, I have shown at 1 the ordinary socket or shell holder for an incandescent lamp, said socket being provided with the usual annular rib or bead 2 to which a shade holder or support is required to be applied.

The particular form or shape of shade-attaching part of the holder is immaterial. It may be widely varied to suit conditions of use and may be an integral part of the shade itself. For the sake of illustration, however, I have herein shown a shade support consisting of the annular plate 3 which may be formed with or without perforations, the said plate having the upturned neck 4. The neck is of suitable diameter to embrace somewhat loosely the bead 2 on the socket, there being provided a contracted or shouldered portion 5 adapted to clasp or seat against the upper side of the bead when the neck is applied to the socket. The neck is also provided with one or more slits 6 (herein three in number) to separate it into several resilient grasping portions and render it more or less

resilient and expansible with reference to the walls of the socket so that the contracted portion may be readily slipped over the bead and into its seat thereon, as shown in Figs. 60 1 and 2.

When applied to the socket, as shown in the drawings each grasping portion of the holder clasps the bead between the said neck portion 5 and one or more (herein six) indentations or depressions 7 formed (see Figs. 65 2 and 5) in the neck near the union thereof with the plate 3, so as to seat against the under side of the bead. When thus applied to the socket, the holder can be forced into 70 gripping relation therewith and there locked by suitable locking means. This may be done in various ways, but herein I have provided a suitably shaped locking collar having a main body portion 8 of sufficient diameter to receive the larger diameter of the neck 4. The collar also has a contracted end 9 presenting an end opening sufficiently large to pass over the bead on the socket, but small enough to overlie and seat against the 80 shouldered part 5 of the holder. The collar is applied to the socket piece first, being slipped up over and above the bead. The holder is then slipped into position, after which the collar is moved down to embrace 85 the holder neck and is then applied thereto to grip the holder to the socket.

To provide for the gripping and locking action, the walls of the locking collar and the neck are provided with coöperating 90 engaging members so that when the locking collar is applied and turned thereon the resilient grasping portions of the neck are forced up and against the beaded socket piece. This is accomplished herein by providing on the holder neck 4 one or more (herein three) outwardly directed projections 10 which present shoulders adapted to be engaged by suitable cam formations on the collar, the latter herein presented by one 95 or more circumferential inclined grooves 11 (herein three in number). Each groove has a right angled open extension 12 (see Fig. 4) and is so proportioned as to fit the projections 10 so as to provide a "bayonet joint" 100 connection between the collar and the holder. When the collar is applied to the neck the straight or longitudinal portion 12 of each groove slips down over a projection 10 until the latter enters the inclined portion 11 of 105 the groove. The collar is then turned, which causes the lower or flattened wall of each

groove to engage the underside of the shouldered projection 10 and force or wedge the split neck portions inwardly with such force that they grip tightly the beaded neck of the 5 socket piece. This wedging action takes place between the inclined or cam-shaped wall of the groove and the under side of the projection 10, the contracted end 9 of the collar being thereby drawn down tightly 10 against the shoulder 5 on the holder. This acts to hold the neck against withdrawal from the socket and also wedges and pinches the split parts of the neck radially in and against the socket. It will be seen that this 15 radially inward wedging or gripping action is due to longitudinal variations in the engaging cam surfaces of the collar and neck, that is to say, in the illustrated form it is due to the longitudinal inclination of the 20 cam groove 11 which draws the collar longitudinally down upon the neck, and is not due to variations laterally or transverse the collar. The gripping efficiency of this form of locking collar is quite irrespective of the 25 diameter of the contracted portion 9, so that the latter can be made to readily pass over the socket bead without affecting the locking efficiency of the collar.

While I have herein shown and described 30 one specific form of my invention, it is to be understood that the principles thereof may be carried out in a variety of ways and that my invention is not limited to the herein described embodiment thereof.

35 Claims.

1. A shade support for an electric lamp socket comprising a split neck having a contracted shouldered portion adapted to seat against the upper side of the socket bead, one 40 or more interiorly presented projections adapted to seat against the under side of the socket bead, one or more exteriorly presented projections also upon said neck, a collar adapted to embrace said neck and having a 45 contracted end adapted to seat upon said

shouldered portion, and one or more grooves in said collar having each a longitudinal open end adapted to receive a projection on the neck and an inclined extension thereof adapted to engage said projection when the 50 collar is turned to draw the latter down upon the neck and wedge the split portions thereof against the socket.

2. A shade support for an electric lamp 55 socket comprising a split neck having a contracted shoulder portion adapted to seat against the upper side of the socket bead, one or more interiorly presented projections adapted to seat against the underside of the socket bead, and a collar adapted to embrace 60 said neck and having a contracted end adapted to seat upon said shoulder portion and having a bayonet joint connection with the split neck.

3. A shade support for an electric lamp 65 socket comprising a split neck member having a contracted shoulder portion adapted to seat against the upper side of the socket bead, one or more interiorly presented projections adapted to seat against the underside of the socket bead, a locking collar member; one of said members having an inclined circumferential formation adapted to be engaged by the other when the collar is turned 70 to draw the neck into gripping relation with 75 the socket.

4. A shade support for an electric lamp socket comprising a split neck 4, a shoulder portion 5, the projections 7 and 10 on the neck and the collar 8 having the contracted 80 end 9 and the grooves 11 adapted to engage projections 10 on the neck.

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

HORATIO C. HAWKS.

Witnesses:

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