J. H. DALE.

SHADE HOLDER.

APPLICATION FILED JAN. 13, 1909. RENEWED SEPT. 14, 1909.

970,804. Patented Sept. 20, 1910.

Fig. 1.

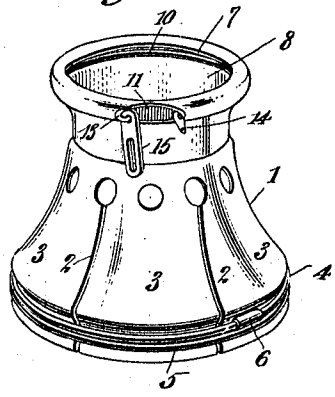

Fig. 2.

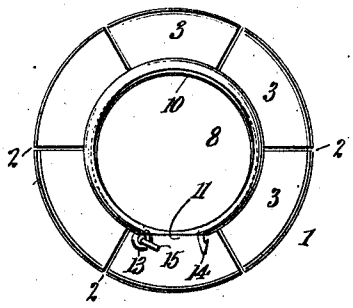

Fig. 3.

Witnesses:

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SHADE-HOLDER.

970,804. Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed January 13, 1909, Serial No. 472,003. Renewed September 14, 1909. Serial No. 517,745.

To all whom it may concern:

Be it known that I, JOHN H. DALE, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Shade-Holders, of which the following is a full, clear, and exact description.

My invention relates to shade holders for incandescent electric lamps, the object being to provide a cheap and efficient form of shade-holding device adapted to be applied directly to the casing of an ordinary lamp socket.

In my prior Patent No. 803,883, a construction for the above purposes is shown, making use of a wire ring inclosed in a spiral or coil spring. This construction gives an elastic or yielding engagement between the lamp socket and the shade. The construction shown in my Patent No. 936,421 also provides a yielding support for the shade holder. In the present application I provide a shade holder having a wire ring which can be locked to form an absolutely rigid and unyielding connection with the lamp socket. The present invention also includes a novel method of supporting the lamp shade from the shade holder.

In the drawings: Figure 1 is a perspective view of a shade holder embodying the principles of my invention; Fig. 2 is a plan view of the same, and Fig. 3 is a sectional view showing the shade holder in use.

Referring to the drawings in which like parts are designated by the same reference sign, 1 designates the body of the shade holder conveniently made of sheet metal spun into a generally conical form and having an internal reflecting surface. The lower flaring portion of the body 1, is vertically slotted at a plurality of equally spaced apart points 2 around its circumference so as to form a corresponding number of resilient tongues 3. At its lower side the body 1 has a groove 4 in which is received a double spiral spring ring 5.

6 denotes a strap for joining one convolution of the spring 5 to a tongue 3 of the body 1. The tension of the spring ring 5 and the plurality of convolutions employed impart a considerable resistance against the outward deflection of the tongues 3. This resistance is due not only to the resiliency of the wire, but also to the friction, it being evident that there is a considerable tangential displacement of the rings on the tongues in case of outward deflection of the latter owing to the plurality of convolutions.

At its upper end the body 1 is beaded to form an interior groove 7 with an adjacent opening 8 of sufficient size to admit the usual bead 9 of a lamp socket, within or below such groove 7.

10 denotes a ring formed of metallic wire bent into nearly, but not quite complete circular form and inclosed in the groove 7. At one side an aperture 11 is provided in the body 1, to communicate with the groove 7, and the extremities of the wire 10 are deflected at 13 and 14 to project through this aperture 11. One extremity 13 is bent to form an eye, while the other extremity 14 is bent and formed into a sort of hook or latch.

15 denotes a hasp pivoted to the eye 13 and adapted to coöperate with the hook or latch 14. The hasp 15 when engaged over the hook 14, draws the ring 10 into restricted relation, so that it closes over the bead 9 of the lamp socket, as shown in Fig. 3. When the hasp 15 is released, the ring 10 expands and the shade holder is freely removable from the lamp socket. While I have described this particular means of joining the free ends of the ring 10 together when desired, I do not desire to be limited or restricted thereto, as any positive means for detachably connecting the ends of the ring 10 in rigid unyielding engagement, will serve in lieu thereof.

The use and operation will be obvious from the foregoing description. It is merely necessary to push the shade holder 1 over the usual flanged rim 18 of an ordinary shade 19, the tongues automatically clasping themselves into firm engagement, impelled by the resiliency of the double spiral ring 5. The shade holder 1 is then pushed onto the usual lamp socket 20, as already described, so that the bead 9 is within the groove 7 of the shade holder and below the plane of the ring 10. The projecting ends of the ring 10 are then drawn together through the recess 11 by means of the hasp 15. When the latter has been forced over the hook 14, the ring is restricted to a perfectly definite and unchanging diameter or size, which is small enough to prevent withdrawal of the bead 9 therethrough and which is large enough to preclude its own passage through the opening 8. As the nature of the hasp 15 is positive and unyielding, and the ring

itself is of rigid wire, these dimensions are not susceptible of change except within negligible limits, so that a fixed positive engagement of the shade on the lamp socket is secured. The parts are readily detachable whenever desired, however, by a simple manipulation.

What I claim, is:

1. A shade holder having an interior groove at its upper end, a ring interrupted on one side and received in said groove, and means for rigidly joining together the free ends of said ring.

2. A shade holder having an interior groove at its upper end with an adjacent opening to receive a lamp socket, a ring interrupted on one side and received in said groove, and means connected to one end of said ring and adapted to be connected to the other for rigidly joining together the free ends of said ring to constrict the same to a size insufficiently small to pass through said opening, but sufficiently small to positively clasp the lamp socket.

3. A shade holder having an interior groove at one end, a ring interrupted on one side and received in said groove, means for rigidly joining together the ends of said ring within said groove, said groove having an aperture to expose the ends of said ring and said means.

4. A shade holder having an interior groove at one end, a ring interrupted on one side and received in said groove, the ends of said ring projecting through the wall of said shade holder, and a hasp for rigidly joining together the ends of said ring.

5. A shade holder having an interior groove at one end, a ring interrupted on one side and having an eye and an outwardly bent hook at its free ends, said eye and said hook projecting through the walls of the shade holder, and a hasp pivoted to said eye and adapted to engage said hook.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

JOHN H. DALE.

Witnesses:

WALTER I. HESS,

H. S. SALT.