J. H. DALE.

SHADE HOLDER.

APPLICATION FILED AUG. 26, 1908.

936,421. Patented Oct. 12, 1909.

Fig. 1.

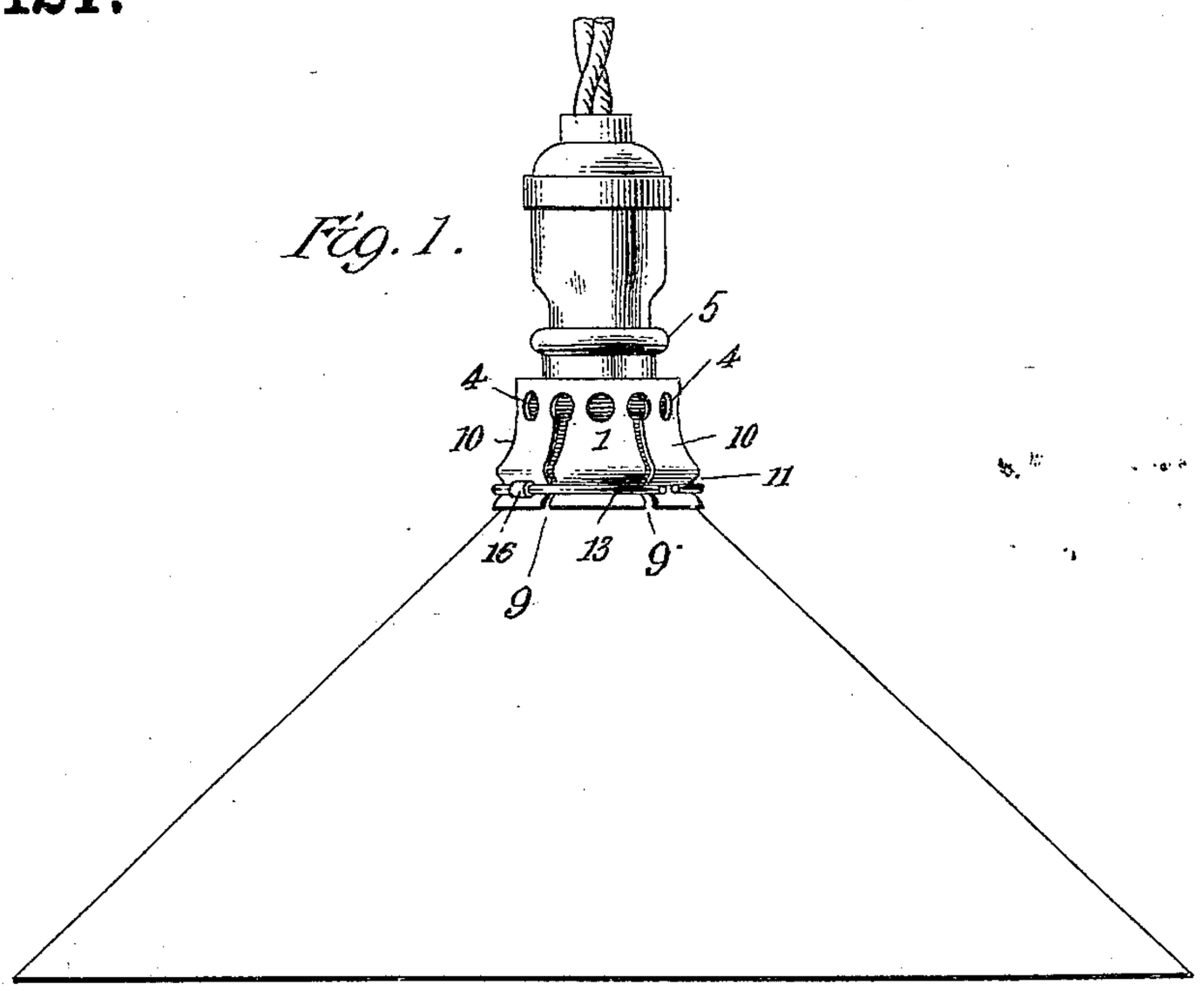


Fig. 2.

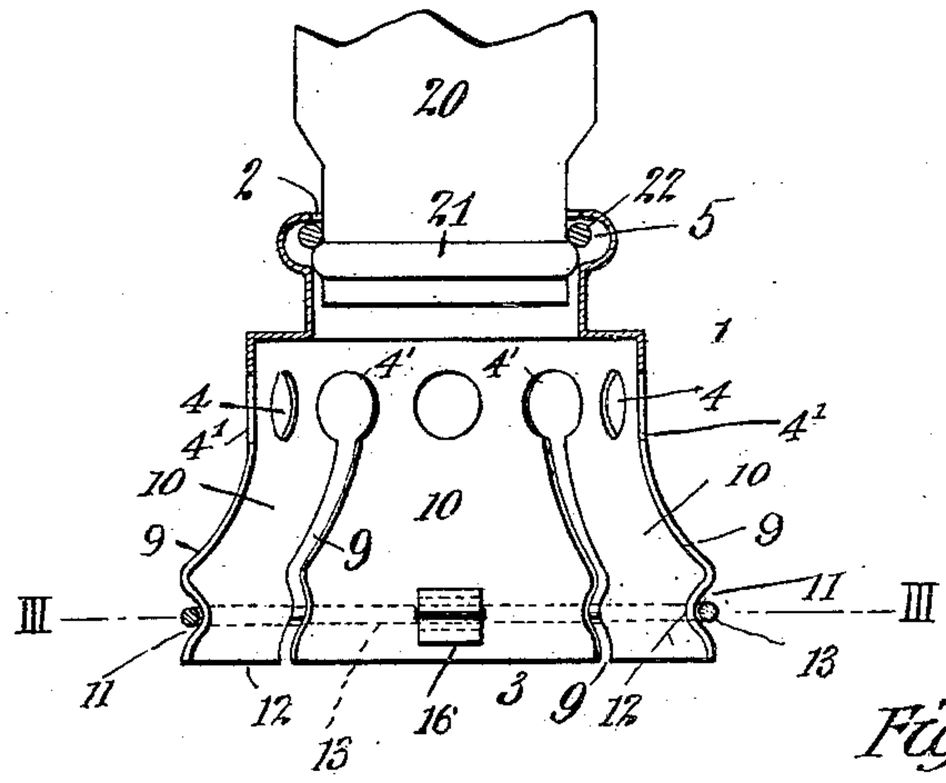


Fig. 3.

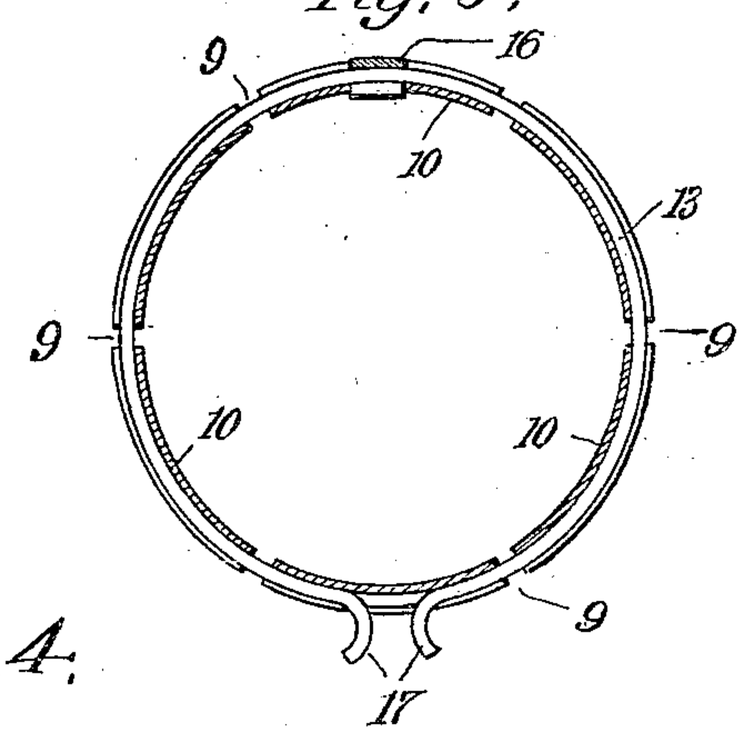
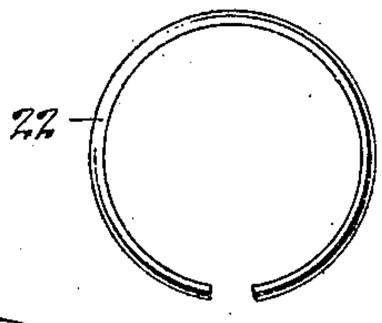


Fig. 4.



Witnesses:

Francis Obrien

Inventor

John H. Dale

By his Attorneys

Rosenbaum & Stockbridge

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN H. DALE, OF NEW YORK, N. Y.

SHADE-HOLDER.

936,421. Specification of Letters Patent. Patented Oct. 12, 1909.

Application filed August 26, 1908. Serial No. 450,402.

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 a form of shade holder or support particularly for use with electric fixtures. The ordinary holder for this purpose makes use of a sheet metal frame with clamping screws which have to be tightened upon the shade at a number of points thereabout. This manipulation is troublesome, and furthermore objectionable, as the nature of the support is absolutely unyielding to accommodate any expansion and contraction of the shade.

It is one purpose of my invention to provide a shade holder which clasps into firm engagement with the shade by a single movement or operation, which holds with great security in use, and which accommodates any expansion or contraction which may take place in the material of the shade when heated.

I further provide for the convenient attachment of the shade holder to the usual lamp socket of the type ordinarily employed and either screwed to a wall bracket or depending from a flexible cord connection.

Lamp sockets of this class ordinarily have a circumferential groove in which a part of the holder is engaged by a clamping screw. I make use of spring means for this purpose in combination with a spring clasp which holds the shade.

In some aspects the present invention is in the nature of an improvement over the structure of my prior application No. 441,742, filed July 3, 1908, and in other aspects the present application includes broadly new subject-matter.

With these and other objects in view the invention consists in the features of construction and combination as hereinafter set forth and claimed.

In the drawing: Figure 1 is a side view of a shade holder embodying the principles of my invention in use with an ordinary lamp socket and shade. Fig. 2 is a vertical sectional view. Fig. 3 is a section on the line III—III of Fig. 2. Fig. 4 is a detail view of one of the parts.

Referring to the drawing, 1 indicates a shade-holder conveniently made of sheet metal, spun to a somewhat conical or flaring outline, as shown in Fig. 2, and open at its ends 2 and 3 to receive the lamp socket and the shade, respectively. The form of the shade holder may be of any ornamental outline, but I prefer that shown, having a central zone with perforations 4 for the escape of hot air, and having a bead on its upper edge forming an internal annular groove 5 just inside the opening 2.

The lower part of the shade holder flares outward and is slotted or serrated inward at a plurality of points 9, preferably equally spaced apart around its circumference. These slots or serrations form the structure of the shade holder into a series of downwardly extending spring tongues 10, which are quite resilient in practice, partly owing to the resiliency of the metal, which is hardened in the spinning process, and partly owing to the slightly arcuate transverse section of the tongues which gives them a greater stiffness or elasticity than would be possessed by plane or flat tongues or blades. These various tongues may have any suitable protuberances at their lower extremities to engage the shade, but in practice I initially spin the shade holder with an exterior annular groove 11 at its lower flaring edge around opening 3, whereby the completed tongues 10 are furnished with internally projecting rounded surfaces 12 which together establish a substantially continuous bead which is expansible through a certain range of adjustment, dependent on the elasticity of the spring tongues 10. This bead is adapted to engage over the usual groove of the lamp shade and firmly clasp the same in use. In order to impart greater stiffness and rigidity to the spring tongues 10 than is obtained by their inherent strength, I provide a wire spring ring 13, which is inclosed in the groove 11 so as to embrace all the spring tongues and bear them inwardly with a suitable force dependent on its stiffness. This spring wire ring is particularly advantageous, because in order to spread apart the tongues, it is necessary not only to overcome their resiliency and the resiliency of the wire 13, but also the tangential friction between the ring and tongues which impedes any outward displacement of the latter. By reason of these causes the shade holder engages an ordinary lamp shade with entirely adequate security in use.

In order to prevent the accidental loss or removal of the spring wire ring 13, I fasten the latter to one of the tongues 10, preferably at a point opposite the opening between its ends. A convenient fastening comprises a simple strap or band 16 surrounding the wire 13 and engaged in a recess in one of the tongues 10. This engagement does not interfere in any way with any of the functions of the spring wire ring, but acts to prevent its loss or removal.

In use the shade holder is simply sprung over the usual lamp shade, the spring tongues automatically separating under the pressure of the application and thereafter clasping themselves in place upon the shade so as to hold the same securely. It is evident that the flexibility of the device adapts it for use with shades of varying sizes, and its elasticity permits a wide range of expansion and contraction without breaking the shade on the one hand, or allowing it to be loosened on the other. This flexibility and elasticity is substantially uniform for all the tongues around the shade holder on account of the loose connection of the clamping wire 13 which is free to slide or swivel in its receiving band 16, so that the tongues are clasped in substantially the same way as if the ring were entirely free thereabout. As particularly shown in Fig. 3, I ordinarily make the ring 13 with outwardly projecting hooked extremities 17, providing a means adjacent to its open side at which it may be grasped and pushed upward. The location of the band 16 is made diametrically opposite the projecting extremities 17 of this ring, in which relation the strap 16 is adapted to constitute a hinge and permit the ring 13 to swing upwardly over the body of the shade holder 1. This manipulation is convenient in case the holder is applied to a rather large or heavy shade, since it temporarily frees the spring tongues 10 from any outside binding force so that they are easily slipped over the rim or bead of the shade. The form of the slots 9 may be made any desired shape, but I prefer that shown in the drawings, as giving an ornamental, pleasing appearance to the shade holder, the slots being merged into some of the openings 4′ at their upper ends so that the openings and the slots combine to have a filagree effect as if they were supplied wholly for the purposes of ornamentation.

A feature of the present invention lies in the means by which the shade holder is attached to a lamp socket. 20 designates a lamp socket of the usual form ordinarily provided with a bead 21 at its lower end. The open end 2 of the shade holder 1 is of such a size as to fit rather accurately over the bead 21 of the lamp socket, and within the bead 5 of the shade holder, which is directly adjacent its end opening 2, I inclose a spring ring 22 (particularly shown in Fig. 4). The resiliency of the ring 22 is such as to permit it to spread over the bead 21 of the lamp socket when the shade holder is applied thereto, whereupon it takes the relation shown in Fig. 2, serving to hold the shade holder in place. The application of the shade holder is most easily accomplished by pushing it diagonally onto the lamp socket until the ring 22 is partially engaged over the bead 21 and thereafter straightening the parts into their normal or fully-clasped relation by direct pressure. The ring 22 should be of fairly stout wire so that its normal inside diameter is less than that of the bead 21, while its normal outside diameter is greater than the size of the opening 2.

What I claim is:

1. A shade holder having an interior bead at its lower edge and a plurality of slots or serrations extending upwardly therefrom to form tongues, a spring wire ring received in the exterior groove of said bead, and means for flexibly but permanently attaching said ring to one of the tongues.

2. A shade holder having an interior bead at its lower edge and a plurality of slots or serrations extending upwardly therefrom to form tongues, a spring wire ring received in the exterior groove of said bead, said ring having outwardly directed hooked extremities, and means for flexibly but permanently attaching said ring to one of said tongues at a point substantially diametrically opposite said extremities, whereby the extremities may be grasped and pushed upwardly with a hinging movement to free the tongues while the latter are being engaged over the shade.

3. A shade holder having an interior bead at its lower edge, and a plurality of slots or serrations extending upward therefrom, a spring wire ring received in the exterior groove of said bead, and a band or strap on one of the tongues to loosely engage said ring to hold the same against removal.

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

JOHN H. DALE.

Witnesses:

WALDO M. CHAPIN,

JAMES D'ANTONIO.