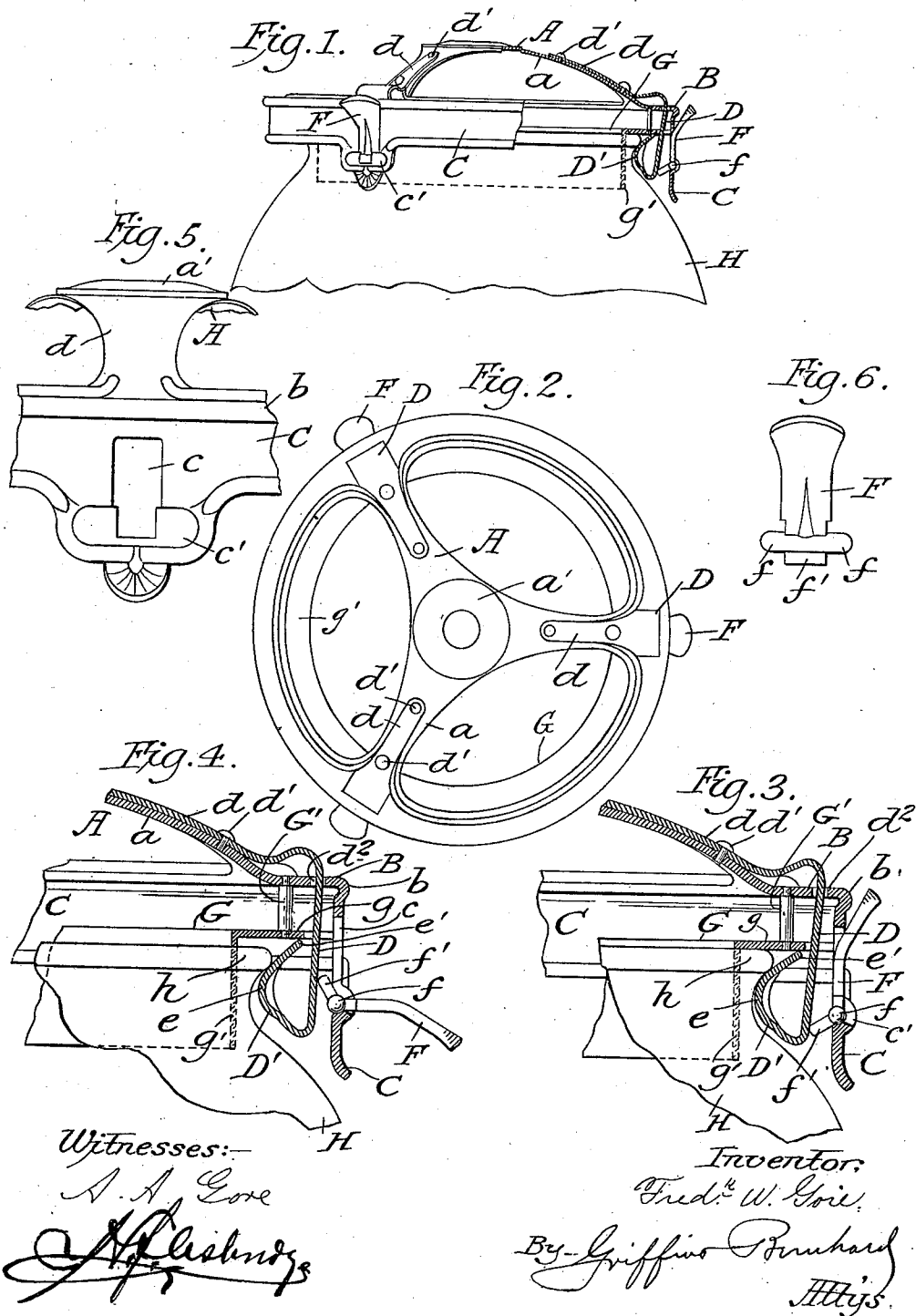


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 HOLDER FOR GLOBES AND SHADES OF ARTIFICIAL LIGHTS.
 APPLICATION FILED OCT. 5, 1909.

996,710.

Patented July 4, 1911.



UNITED STATES PATENT OFFICE.

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HOLDER FOR GLOBES AND SHADES OF ARTIFICIAL LIGHTS.

996,710.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed October 5, 1909. Serial No. 521,149.

To all whom it may concern:

Be it known that I, FREDERICK W. GORE, a citizen of the United States, residing in the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Holder for Globes and Shades of Artificial Lights, of which the following is a specification.

10 This invention is a holder for the globes and shades of artificial lights, said holder being capable of use in connection with the globes of arc and incandescent lamps and with the shades commonly employed for incandescent electric lights or with incandescent gas lights of either the inverted or upright mantle type.

15 It is my purpose to provide a simple, efficient and easily operated substitute for the common holder employing individually operated screws for retaining the globe or shade in position with respect to the light.

20 Another purpose is to preclude the heat emanating from the light from striking directly on or acting against that edge of the globe or shade which is adapted to be held in the fixture.

25 In one practical embodiment of the invention, I employ a holder having, preferably, a plurality of yieldable retaining members, and a plurality of adjusting members co-operating with said yieldable retaining members.

30 When inserting a globe or shade, the retaining members yield or give for the beaded or flanged edge of the globe or shade to pass them, immediately after which said retaining members spring into engagement with the beaded or flanged edge for the purpose of retaining the globe or shade in position, thus leaving both hands of the operator free to manipulate the adjusting devices. Said devices operate to force the retaining members into firm locked engagement with the globe or shade, so that the latter cannot become displaced accidentally, but the retaining members being yieldable, no undue pressure is exerted by the retaining members on the globe, thus precluding all possibility of breaking the frangible material or chipping the edge thereof.

35 My invention includes, also, a heat deflecting member carried by the holder and positioned interiorly of the globe or shade, at the beaded or flanged edge thereof, for the purpose of precluding the heat from striking

ing against that edge of the globe or shade which is gripped in the holder, whereby the tendency of the heat to crack and break the edge of the globe or shade is minimized.

60 In the accompanying drawings I have illustrated one practical embodiment of the invention, but the construction shown therein is to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a side elevation of my improved shade or globe holder, partly in vertical section, illustrating a portion of the globe. Fig. 2 is a plan view of the holder shown in Fig. 1. Fig. 3 is a vertical cross section on an enlarged scale illustrating a part of the holder and a part of a globe or shade, one of the clamping devices being shown in its closed operative position. Fig. 4 is a view similar to Fig. 3 illustrating the same parts, but with the clamping device in its open or free position to allow of the ready introduction or removal of a shade or globe. Fig. 5 is an elevation of a part of the holder with the clamping device and the operating lever detached. Fig. 6 is a detail view of one of the operating levers.

A designates a holder which comprises substantially a spider, *a*, a horizontal ring or flange, *B*, and a depending rim, *C*. The spider, *a*, ring, *B*, and rim, *C*, may, and preferably are, cast in a single piece of metal, although the entire parts comprising the holder may be stamped and struck up from sheet metal if desired. As shown, the spider comprises a series of downwardly inclined arms which diverge from a central member, *a'*, to the horizontal ring, *B*, and from this ring, *B*, depends the annular rim, *C*. A shoulder, *b*, is provided in the holder at the line where the rim, *C*, joins with the ring, *B*. The depending rim, *C*, is provided with a plurality of vertical slots, *c*, and adjacent to each slot is an offset part, *c'*, which is adapted to accommodate the pivot of one of the operating levers to be presently described.

100 In connection with the holder, *A*, I employ a plurality of clamping devices, the number of which corresponds to the number of slots, *c*, in rim, *C*. Each clamping device, *D*, is bent, preferably from a single piece of elastic metal, so as to produce a shank, *d*, and a bowed member, *D'*. The shank, *d*, of each clamping device is applied externally to one member, *a*, of the spider forming a part of holder, *A*, and said shank is attached

rigidly to the spider as by rivets, d' . The shank passes in a downward direction freely through an opening or slot, d^2 , which is provided in the horizontal ring, B, of the holder. The other end of the metal composing the clamping device, D, is bent upwardly and bowed or curved, as shown in Figs. 1, 3 and 4, so as to produce the globe or shade engaging member, D'. This member, D', of the clamp is positioned interiorly of the rim, C, forming a part of the holder, said clamp lying opposite to one slot, c , in the rim, C, see Figs. 3 and 4. The bowed member, D', of the clamp is arched or curved, as at e , so as to present a convex surface adapted for engagement with a corresponding concave surface on the shade or globe, whereas the free end, e' , of said bowed member, D', is positioned for engagement with the lower surface of the flange, g , of a heat deflecting ring, G, to be presently described.

The operating members associated with the clamping devices, D, are in the form of levers, F, each being preferably cast in a single piece, although they may be struck up from sheet metal if desired. Each operating lever is provided with trunnions, f , and with a short arm, f' , the latter extending at an angle to said lever, as shown in Figs. 3 and 4. The levers are adapted to work or operate in the slots, c , of depending rim, C, and the trunnions, f , of each lever are fitted in the offset portion, c' , of said rim, C. The levers, F, when turned to the position shown in Fig. 4, lie exteriorly to the rim, C, but the crank arms, f'' , of said levers are positioned within said rim, C, whereby the crank arm, f'' , of each lever is adapted normally for engagement with one yieldable clamping device, D. The crank arms of the levers operate interiorly of the rim, C, and they are normally engaged with yieldable clamping devices, D, whereby the pressure of said clamping devices against the crank arms, f'' , operate to press the trunnions, f , of the levers into the offset portions, c' , of the rim, C. The result of this action of clamping devices, D, on the levers, F, is to retain said levers in pivotal engagement with the rim, C, thus precluding the operating levers from becoming displaced on the rim, but at the same time, the operating levers are normally exposed outside of the rim in order that the free ends of said levers may be grasped by the fingers of an operator in order to manipulate the levers, F.

An important feature of my new holder is a heat deflecting ring, G, adapted to extend interiorly of a globe or shade for the purpose of precluding the heat, emanating from the light, from affecting that part of the globe or shade which is engaged by the bowed members, D', of the series of clamp-

ing devices, the effect of which is to minimize the breakage of the globe or shade and chipping of the edges thereof. Said heat deflecting ring consists of a horizontal web, g , and a depending rim, g' , the same being formed of a single piece of metal. The horizontal member, g , of said heat deflector may be united or attached in any suitable way to holder, A, or if desired, said heat deflector may be formed in a single piece with the holder. In Figs. 3 and 4 of the drawings, however, I have shown the heat deflector, G, as consisting of a single piece of metal separate from the holder, and said heat deflector is attached to the horizontal member or ring, B, of said holder by means of rivets or braces, G'. A series of these braces or rivets are used, the upper ends thereof being fastened to holder, A, while the lower ends are secured to the horizontal member, g , of said heat deflector. The heat deflector is thus adapted to occupy a fixed position within the depending rim, C, of the holder in order that the free ends, e' , on the bowed members, D', of the clamping devices may engage frictionally with said member, g , of the heat deflector.

In the example of my invention shown in the drawings the holder is especially constructed for the reception of a globe, H, the latter being composed of glass and having a bead or flange, h , at the upper open end thereof. This bead or flange is adapted to engage with the bowed members, D', of the clamping devices, and when the levers, F, are moved to their operative positions, the bowed members, D', so act on the concave faces of the globe as to force the beaded edge, h , thereof into substantially tight engagement with the annular member, g , of heat deflector, G.

When the levers, F, are moved to the positions shown in Fig. 4, the arms, f' , of said levers permit the spring clamps, D, to move outwardly and thus withdraw the bowed members, D', partly from the path of the beaded edge of the globe, but said members, D', are so positioned within the rim, C, that their curved faces will be in the path of the flange or bead, h , on the globe. When the globe is moved into the holder, the beaded edge, h , of said globe engages with the curved faces of the bowed members, D', for the purpose of pressing the clamping devices, D, outwardly, but when the beaded or flanged edge, h , moves past or beyond the high parts of the bowed members, D', then the clamps, D, spring inwardly, whereby the members, D', are caused to engage with the flange or bead, h , of the globe. The members, D', of the clamps will thus act to retain the globe in position when it is introduced into the holder, whereby both hands of the operator are left free for the performance of other work and for the ad-

justment of the levers, F. Subsequent to the introduction of the globe into the holder, and while it is retained by the bowed members, D', the operator manipulates the levers, F, so as to move them to the position shown in Fig. 3. This operation of the levers causes the cranks, f', to press members, D', inwardly and as the free ends, e', of the members, D', are in engagement with the heat deflector, G, it is evident that the members, D', are caused to move inwardly and upwardly, thus operating said members, D', to press the globe in an upward direction for the purpose of firmly seating its bead or flange, h, against the lower face of member, g, on the heat deflector, G.

The levers, F, when turned to their raised positions, operate on the clamps, D, for holding the latter firmly in their adjusted positions, and thus the globe is held securely in place within the holder. In view of the fact, however, that the members, D', and the clamps, D, are yieldable, the globe is not held so tightly that the flanged edge thereof is liable to be broken by the pressure of the clamping devices; in fact, the globe can be easily turned by hand within the holder. When the light is burning, the heat arising therefrom passes upwardly through the globe, H, and strikes the depending member, g', of deflector, G, and this member thus prevents the ascending currents of heat from striking directly against the neck or beaded portions of the globe, thereby minimizing the tendency of the globe to break under the action of heat or from undue expansion.

The holder and other devices shown in the drawings are especially designed for retaining the globe of an electric arc lamp in position around the carbons. It is evident, however, that the device may be used in connection with the shades of incandescent electric lamps, and with the globes and shades of incandescent gas lamps. The holder is especially useful for the globes and shades of inverted incandescent gas lights.

Having thus fully described the invention, what I claim as new, and desire to secure by Letters Patent is:

1. In a device of the class described, a holder, a yieldable retaining device supported thereon, and an operating member cooperating with said retaining device, said operating member being attached to the holder separately from the retaining device and positioned for cooperation with said retaining device to lock it in a fixed relation to a globe.

2. In a device of the class described, a holder provided with a rim, a yieldable retaining device positioned within said rim, and an operating member pivoted on said rim, said operating member cooperating

with said retaining device for holding it in locked engagement with a globe or shade.

3. In a device of the class described, a holder, a plurality of yieldable retaining devices thereon, and a plurality of operating devices pivotally supported upon the holder, each of said operating devices cooperating with one of said retaining devices for holding the latter in locked engagement with a globe or shade.

4. In a device of the class described, a holder provided with a depending rim, a plurality of elastic retaining devices attached to said holder and having a member positioned within said rim, and operating members pivoted on the rim, each operating member cooperating with one of said retaining devices for holding it in locked engagement with a globe or shade adapted to be inserted into said holder.

5. In a device of the class described, a holder provided with a rim, a retaining device depending from said holder and provided with a spring member positioned within said rim for engagement with a globe or shade adapted to be inserted into the holder, and an operating member pivoted to the holder and cooperating with said retaining device for holding the spring member thereof in locked engagement with the globe or shade.

6. In a device of the class described, a holder provided with a rim, a retaining device attached to said holder and provided with a spring member positioned within said rim for engagement with a globe or shade adapted to be inserted into the holder, and an operating lever fulcrumed on the rim, said lever having an arm adapted to act on the retaining device for holding the member thereof in locked engagement with the globe or shade.

7. In a device of the class described, a holder, a retaining device attached to said holder, said retaining device having a bowed yieldable member presenting a convex face adapted for engagement with a globe or shade which is inserted into the holder, and an operating device pivoted on said holder, said operating device cooperating with the retaining device for holding the yieldable member thereof in locked engagement with the globe or shade.

8. In a device of the class described, a holder, a plurality of retaining devices thereon, said retaining devices having bowed yieldable members provided with convex surfaces which are positioned in the path of a globe or shade adapted to be inserted into said holder, and an operating member pivoted to said holder, each operating member cooperating with one retaining device for retaining the same in locked engagement with the globe or shade.

9. In a device of the class described, a

holder provided with a depending rim, a retaining device attached to said holder, said retaining device being provided with an intermediate member which is positioned
5 parallel to said rim, the free end of said retaining device being bowed to produce a yieldable member adapted for engagement with a globe or shade, and a locking device
10 cooperating with the retaining device for holding the yieldable member thereof in locked engagement with the globe or shade.
10. In a device of the class described, a holder provided with a rim, a heat deflector comprising members, one of which is positioned
15 interiorly with respect to a globe or shade and the other member extending radially toward said rim and attached to said holder, retaining devices attached to said holder exteriorly of the heat deflector, each
20 retaining device engaging at its free end with said deflector and also with a globe or shade, and locking devices supported on

said rim and cooperating with said retaining devices.

11. In a device of the class described, a holder, a heat deflector carried thereby and having a member positioned to extend interiorly with respect to a globe or shade, globe retaining devices attached to said holder and positioned exteriorly to the member of the heat deflector which extends into the globe or shade, each globe retaining device having a bowed member the free end of which is seated into engagement with said heat deflector, and operating devices co-
35 operating with said retaining devices.

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

FREDERICK W. GORE.

Witnesses:

H. I. BERNHARD,
JAS. H. GRIFFIN.

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