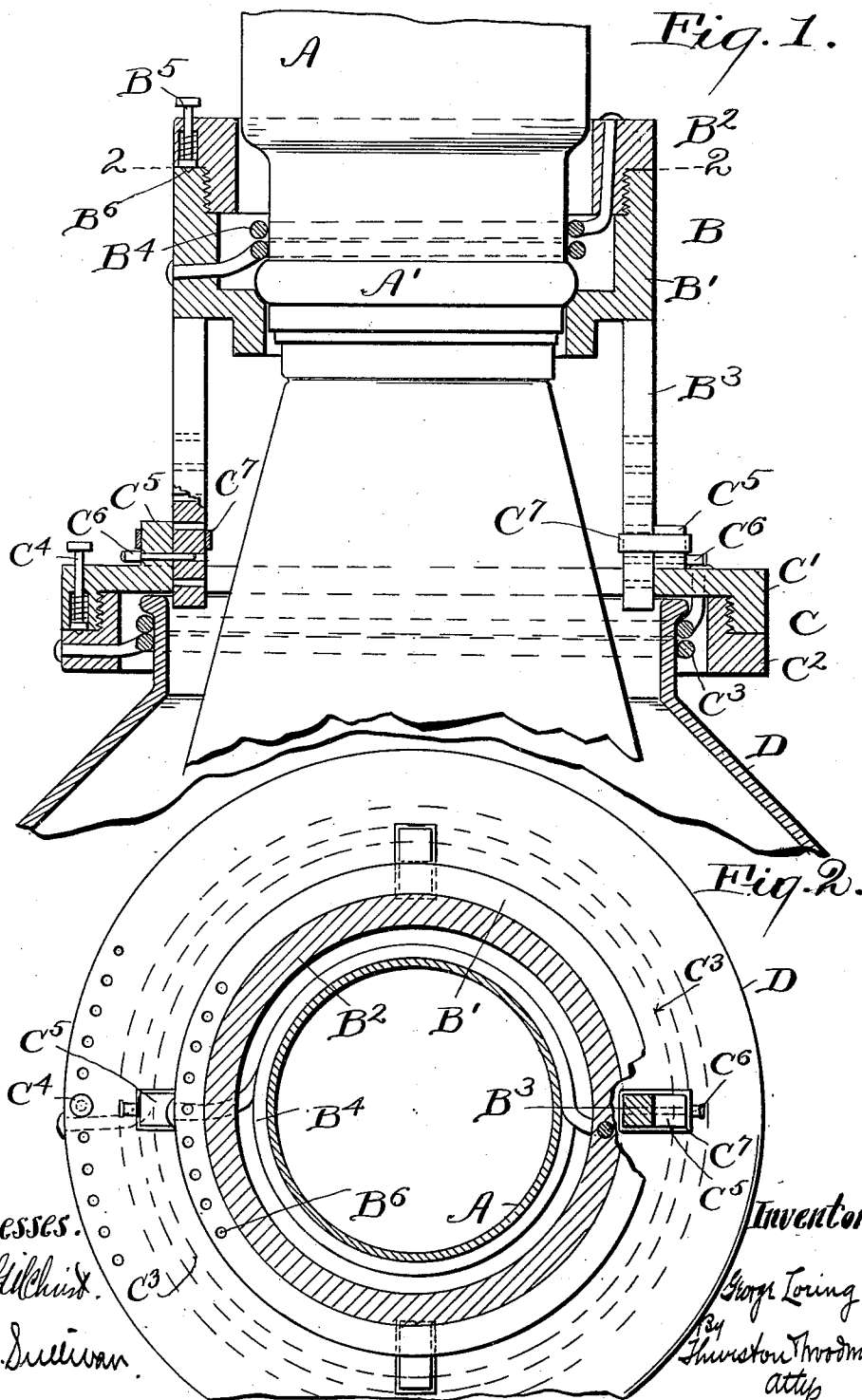


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ADJUSTABLE HOLDER FOR REFLECTORS.
APPLICATION FILED JUNE 25, 1908.

1,007,122.

Patented Oct. 31, 1911.



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UNITED STATES PATENT OFFICE.

GEORGE LORING, OF CLEVELAND, OHIO.

ADJUSTABLE HOLDER FOR REFLECTORS.

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Specification of Letters Patent.

Patented Oct. 31, 1911.

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To all whom it may concern:

Be it known that I, GEORGE LORING, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Adjustable Holders for Reflectors, of which the following is a full, clear, and exact description.

The object of the present invention is to provide a holder for reflectors, which shall be adjustable longitudinally for the purpose of varying the relation between the reflector and the center of luminosity of the light with which the reflector may be used.

More particularly my invention is intended for use with reflectors for electric lights, particularly incandescent lamps, which have socket members to which the holder may be properly secured and by which to support the weight of the reflector.

The invention comprises means for readily and securely attaching the holder to the bracket of a lamp fixture together with means for securing the reflector to said holder so that the load thereof may be carried by the holder, and means for securing longitudinal adjustment of the shade so as to vary its distance from the fixed bracket carrying the light.

An embodiment of my invention is described in the following specification with reference to the accompanying drawings in which:

Figure 1 is an enlarged vertical section of a form of holder which I have constructed. Fig. 2 is a cross sectional view of the same on the line 2—2 of Fig. 1 partly broken away to better illustrate certain features.

Recent developments in the art of lighting, such for example, as perfection of reflectors and the ascertaining of their laws, as well as the discovery of the very marked difference in the distribution of illumination from electric lamps of slightly different class, have led to the discovery that the position of the reflector relative to the center of luminosity is of the most decided importance in determining the intensity and distribution of the illumination. The slightest deviation from certain fixed conditions makes such a difference in the results attained, that, whenever a change in the character of the lamp is made, such as a change from a carbon to a tungsten lamp,

even of the same candle power, a corresponding change in reflectors has followed as a matter of course since the reflector used with the carbon lamp has been found to be not fitted to give the same results with a tungsten lamp. I have discovered, however, that this change in reflectors is not, or at least in many cases is not, necessary, since the desired effects may be achieved by moving the shade of the reflector longitudinally toward or from the fixed support to correspond to the change in the character of the source of light. It is not my purpose at this point to discuss the laws governing or controlling this change in the position of the reflector in order to accomplish the results hitherto attained only by changing reflectors along with the changing of the lamps, since the present application is directed particularly to a means for accomplishing this result.

In the embodiment of my invention herein discussed I have shown as the means for securing the holder to the lamp socket or bracket A, a two-piece ring or collar B, one member B' of which has rigid legs B³ extending therefrom by which the holding ring C for attachment to the base of the reflector D is supported. The second member B² of the holding ring for the socket or bracket piece has screw thread connection with the first member. A wire cable B⁴, preferably with about two coils, is attached by one end to the inner member B' and by the other end to the outer member B² of the ring, the coils being adapted to slip over the bead A' on the socket or bracket piece. With this arrangement the turning of the two members relative to each other in the proper direction causes the wire cable to tighten up its coils and securely embrace the neck of the bracket above the bead. Any return turning movement of the two members may be prevented by some means similar to that of a spring pressed pin B⁵ in one member dropping into a notch or hole B⁶ in the outer member. It is not necessary that the connection between the two members be screw threaded as shown, but this is a convenient and simple method of securing the two sections to each other.

The outer or lower holding ring C, which is secured to and holds the neck of the reflector, is constructed in a manner similar

to that of the ring B, with two members C' C² between which a wire cable or loop is extended, the two members being rotatable relative to each other. These two members
 5 are also provided with means for preventing an accidental rotative return movement by means of stop pins C⁴ or similar devices. Short legs C⁵ carrying adjusting pins C⁶
 10 extend from this second holding ring at such intervals as to meet with the legs B³ projecting from the holding ring on the lamp bracket. These last mentioned legs B³ are perforated and adapted to receive the adjusting pins of the reflector ring, and
 15 loops or straps C⁷ are used to hold the two legs in close engagement after the adjusting pins have been inserted in the proper openings.

By this construction I am able to move
 20 the reflector toward or from the base of the lamp and obtain substantially any variation which may be necessary for accommodating a single reflector to the different styles and qualities of lamp which may be used in con-
 25 nection therewith. This attachment is capable of use with brackets varying somewhat in diameter, a fact which is of some importance, although these articles are as a rule of standard size. Reflectors are not yet
 30 standardized, but they are all provided with a peripheral bead at the end of their neck. With the holding ring which I employ it is not necessary that these necks be exactly of the same size.

35 The attachment as a whole is easily constructed and capable of ready and secure adjustment, which is one of the main objects of my invention.

Having thus described my invention, I
 40 claim:

1. In combination, an electric lamp socket containing an incandescent lamp, of a reflector about the lamp, a holder comprising two parts which are secured together but
 45 capable of adjustment toward and from each other, one of said parts engaging and depending from the said lamp socket the other part engaging and holding the reflector.

50 2. The combination with an electric lamp socket and a reflector about the lamp, of a holder comprising two parts one of said parts engaging and depending from the lamp socket and provided with a plurality
 55 of depending legs, the other part being adjustably secured upon the said legs and engaging and holding the reflector.

3. The combination, with an electric lamp socket containing an incandescent lamp, of
 60 a member mounted upon said lamp, means for adjusting the said member to the socket, a second member adjustably mounted upon the first member, and a reflector removably carried by the second member.

65 4. The combination, with an electric lamp

socket of a member encircling said socket, means mounted upon the said member for adjustably engaging the socket, a second member adjustably mounted upon the first member, a reflector, and means mounted
 70 upon the second member for adjustably engaging the reflector.

5. The combination, with an electric lamp socket containing an incandescent lamp, of
 75 a member engaging said socket, a movable member, a coil of wire surrounding the lamp socket one end being secured to the first mentioned member, the other end of the wire secured to the movable member, means
 80 for holding the movable member in its adjustable position upon the first member, a second member adjustably mounted upon the first mentioned member, a movable member mounted upon the second member, a coil of
 85 wire one end of which is secured to the second member and the other end of which is secured to the movable member mounted thereon, means for holding the last mentioned member in adjusted position, and a
 90 reflector engaged by the coil of wire.

6. The combination with an electric lamp socket, of a lamp held thereby, a resilient
 95 ring member engaging said socket, an adjuster member supported by said ring member, a second adjuster member having an aperture adapted to receive said lamp, a shade or reflector supported by said second adjuster member, and means permitting telescopic adjustment of said adjuster members
 100 upon each other.

7. The combination with an electric lamp socket, of an electric lamp supported there-
 105 by, an adjuster member supported upon said lamp socket, a second adjuster member supported upon said first mentioned adjuster member, means permitting telescopic adjustment of said adjuster members with respect to each other, said second adjuster member
 110 having an aperture adapted to receive said lamp, and a shade or reflector mounted upon said second adjuster member.

8. In combination, a reflector or shade member having an aperture therein, an ad-
 115 juster member supporting said reflector or shade member and having a mouth coaxial with said aperture, a second adjuster member supporting said first mentioned adjuster member and its attached reflector or shade member, said adjuster members adapted to telescope one upon the other for adjusting
 120 said shade or reflector member.

9. The combination with an electric lamp socket, of a reflector or shade, means for longi-
 125 tudinally adjusting said reflector or shade with respect to said socket comprising a cylindrical adjuster member secured upon said socket, and a second wide mouthed cylindrical adjuster member supported upon said first mentioned adjuster member and movable longitudinally thereon, said reflector or
 130

shade supported by said second adjuster member.

10. The combination with an electric lamp socket, of a resilient member engaging said
5 socket, an adjuster member supported by said resilient member, a second adjuster member supported by said first mentioned adjuster member and longitudinally adjust-

able thereon, and a shade or reflector supported by said second adjuster member. 10

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

GEORGE LORING.

Witnesses:

H. R. SULLIVAN,

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