June 2, 1931. N. LANG 1,808,501

HOLDER FOR REFLECTORS

Filed Dec. 8, 1928

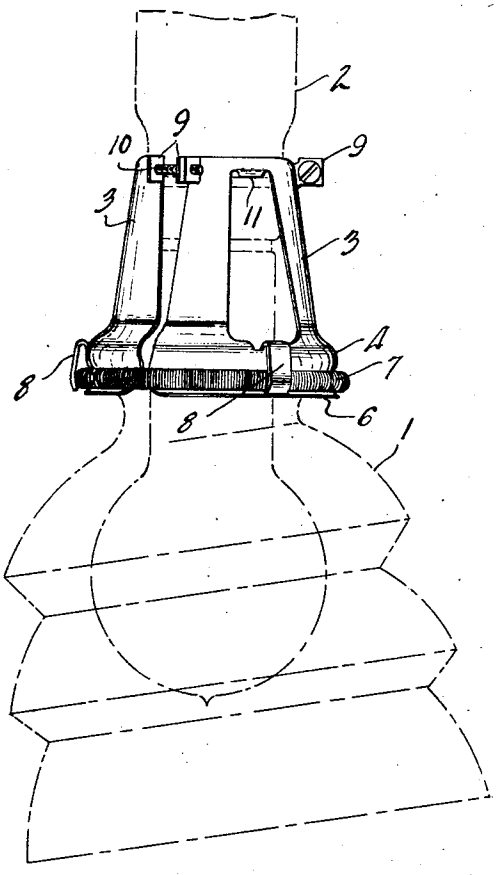



Fig.-1

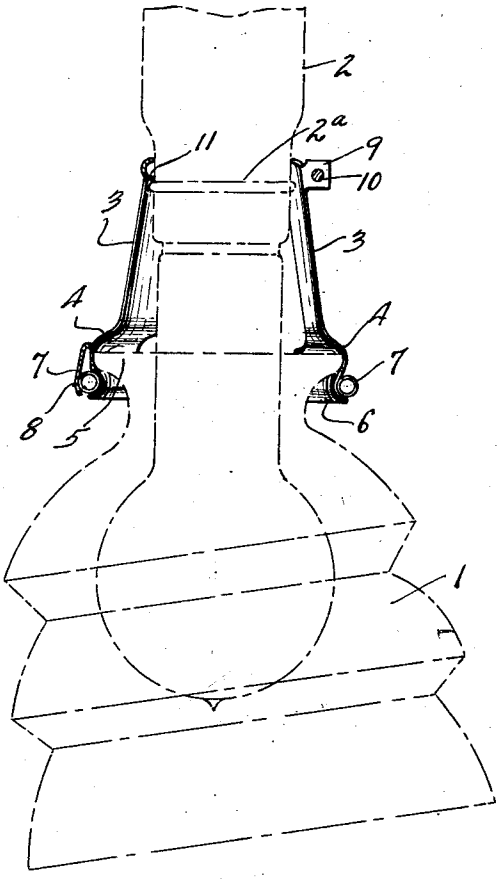



Fig.-2

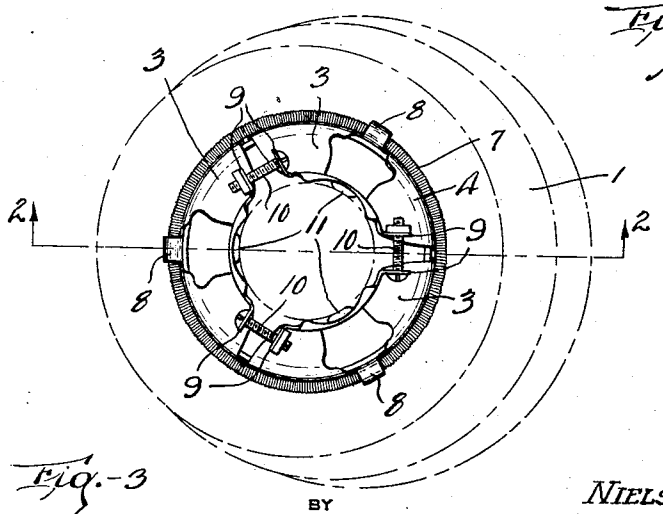



Fig.-3

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# UNITED STATES PATENT OFFICE

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## HOLDER FOR REFLECTORS

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This invention relates to an improved device in the art of lighting fixtures.

The object of the present invention is to devise an improved form of holder by which a reflector may be supported from the socket of an incandescent bulb.

More particularly, the present invention relates to an improved arrangement at the lower end of the holder whereby there is afforded an efficient and convenient means for installing the same and at the same time, presenting a very neat appearance and without increasing the cost of manufacture.

Other objects will appear from the following description and claims when considered together with the accompanying drawings.

Fig. 1 is a side elevation of my improved device; Fig. 2 is a vertical sectional view of the same; and Fig. 3 shows my improved device in top plan view.

The lower end of the present improved holder is adapted to be attached to the reflector 1 for suspending the same from the socket 2 of an incandescent lamp. The reflector, socket, and bulb are shown only in skeleton form since the present invention relates exclusively to the improved form of holder.

This holder, as here illustrated, comprises three duplicate parts 3, which may be formed as stampings and each of which is provided with an annular grooved portion 4 extending about the lower end portion thereof for engagement with the rib 5 at the top of the reflector 1. The lower end portion of each stamping continues downwardly and sufficiently under the rib 5 to afford suspending engagement therewith. The extreme lower end portion of each stamping terminates in the rib or bead 6 under the rib 5, and at the same time affords a groove on the outer surface thereof to receive the endless coil spring 7 for engagement therein. When the three stampings are assembled together, the rib 5 of the reflector is effectively engaged by the inner complementary grooves in the several stampings and the ribs 6 of all of the stampings extend in the same complementary manner. Thus, the coil spring 7 extends about what virtually corresponds to a continuous groove upon the outer side of the rib 6. Each stamping is also provided with an integral downwardly extending tongue 8 so as to prevent accidental displacement of the spring 7 from the groove prior to installation.

The upper end of each stamping is provided with a pair of radially extending ears 9 through which the screws 10 are adapted to extend for drawing the same together about the lamp socket 2. The intermediate top end portions of the stampings are provided with the inwardly extending ears 11 which are adapted to engage the socket for firmly positioning the holder thereupon, above rib $2^a$.

In order to install the present holder, it is merely necessary to engage the lower end of the same over the upper end of the reflector so as to position the ribs 6 of the stampings under the rib 5 of the reflector. The coil spring 7 then maintains the parts in such position without adjustment or manipulation. At the same time, the coil spring 7 by virtue of its particular arrangement in the present construction, tends to draw the extreme lower end portions of the several stampings inwardly and as a result, the upper end portions of the stampings are forced outwardly, thereby facilitating the positioning of the upper end of the holder about the socket 2 preparatory to clamping the same thereupon. This action is made possible by virtue of the fact that the coil spring 7 is located beneath the bead 5 which serves as a fulcrum about which the several stampings are virtually pivoted upon contraction of the spring 7 in the manner above described. Then, with the holder attached to the upper end of the reflector, the upper end of the holder is then freely positioned about the socket 2 and is clamped in such position by tightening the screws 10. In order to remove the holder, the same can be accomplished by reversing the order of operation as just now described.

Thus, it will be seen that the groove which is formed upon the outer surface of the rib 6 not only affords a means of engagement under the rib 5 for effectively supporting the reflector, but serves also as a means for seating the coil spring 7. This two-fold function

of the groove serves to simplify the construction and to present an extremely neat appearance. The particular manner of mounting the spring, with relation to the other parts, serves to maintain the upper end of the holder in open position until the screws 10 are tightened. Thus, the positioning of the holder about the socket is greatly facilitated. Furthermore, the degree of engagement of the coil spring 7 about the lower part of the holder is uniform at all points and this manner of engagement involves no adjustments which are apt to become disengaged or to require attention. The endless coil spring automatically adapts itself to the position for effective engagement.

The increased facility with which the present holder may be installed means a decided saving in time with the increased convenience. At the same time, the present form of holder presents an extremely neat appearance.

It is to be understood that the present disclosure is merely for purposes of illustration and that there may be devised various modifications without departing from the spirit of the present invention.

This same holder may be employed in connection with a globe as well as a reflector, as will be readily understood by those who are skilled in the art.

What I claim is:

1. A reflector holder comprising rigid means for effecting engagement of the one end thereof with a support, rigid means at the other end thereof for engaging a reflector, and means whereby engagement of the holder with the reflector will tend to render said other engaging means ineffective uniformly thereabout, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

2. A reflector holder comprising a concentrically adjustable opening at one end for engaging a support, means at the other end thereof for engaging a reflector and means whereby engagement of the holder with the reflector will maintain the holder open at the said one end uniformly throughout, thereby facilitating the engagement of the holder with the support.

3. A reflector holder comprising manually adjustable rigid means for effecting engagement of the one end thereof with a support, automatically adjustable rigid means at the other end thereof for engaging a reflector uniformly throughout, and means whereby engagement of the holder with the reflector will tend to render said other engaging means ineffective, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

4. A reflector holder comprising means for effecting engagement of the one end thereof with a support, annular spring means at the other end thereof for engaging a reflector concentrically thereabout, and means whereby engagement of the holder with the reflector will tend to render said other engaging means ineffective uniformly thereabout, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

5. A reflector holder comprising means for effecting engagement of the one end thereof with a support, endless spring means at the other end thereof for engaging a reflector concentrically thereabout, and means whereby engagement of the holder with the reflector will tend to render said other engaging means ineffective uniformly thereabout, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

6. A reflector holder comprising means for effecting engagement of the one end thereof with a support, means at the other end thereof for supporting engagement with a projection on a reflector, and a separate spring for actuating said engaging means, said parts being so constructed and arranged that action of the spring will tend to render said other engaging means ineffective uniformly thereabout thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

7. A reflector holder comprising expansible means for effecting engagement of the one end thereof with a support, the other end thereof being provided with a single means for affording supporting engagement with a reflector and for seating a spring therein, and a spring seated therein for maintaining said holder in engagement with the reflector.

8. A reflector holder comprising expansible means for effecting engagement of the one end thereof with a support, the other end thereof being provided with a single annular deformed portion for supporting engagement with a reflector and for seating a spring therein, and a spring seated therein for maintaining said holder in engagement with the reflector.

9. A reflector holder comprising radially expansible means for effecting engagement of the one end thereof with a support, and the other end with a reflector, said expansible means including a plurality of separate members having continuous deformations for engagement with the edge portion of a reflector, and a spring seated in said deformations so as to maintain the holder in engagement with the reflector.

10. A reflector holder comprising a plurality of duplicate parts each having like means at the one end to engage a reflector and like means at the other end for engaging a support, said reflector-engaging means consisting of a substantially reversed curved portion adapted to engage about the annu-

lar rib around the edge of a reflector, and to afford a seat for a spring upon the opposite side of the rib from the support, and a spring therefor, whereby the engagement of the spring will hold the other end of the holder open, thereby facilitating positioning of the same upon the support.

11. In a device of the class described, the combination of a reflector having an annular rib about its one end, and a holder comprising a plurality of concentrically arranged duplicate parts each having its one end portion extended about said rib and continuing so as to provide an outer annular groove, an endless coil spring seated in said grooves and being so arranged that the said rib will serve as a fulcrum about which said parts will be actuated by said spring so as to increase the space between the opposite ends of said parts and thereby facilitate positioning of the same about a support, and means for securing said opposite ends in engagement about a support.

12. A reflector holder comprising a plurality of concentrically arranged duplicate parts adapted for clamping engagement at one end with a support and at the other end with a reflector for supporting the same, each of said parts having its latter-mentioned end portion provided with a groove for engaging about the rib of a reflector, and said extreme end portion being provided also with an annular outer groove, an endless coil spring seated in said groove, said spring being located upon the opposite side of said rib from the support-clamping end of the holder, thereby facilitating the engagement with the support preparatory to clamping the same in position, and clamping means therefor.

13. A reflector holder comprising a plurality of means at one end thereof for effecting engagement with a support, a plurality of means at the other end thereof for engaging a reflector, means having rigid connection between said end means, and means whereby engagement of the holder with the reflector will tend to render said other engaging means ineffective, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

14. A reflector holder comprising a plurality of duplicate rigid parts having like means at the one end to engage a reflector and like means at the other end for engaging a support, said reflector-engaging means consisting of a substantially reversed curved portion adapted to engage about the annular rib around the edge of a reflector, and to afford a seat for a spring upon the opposite side of the rib from the support, and a spring therefor, whereby the engagement of the spring will hold the other end of the holder open, thereby facilitating positioning of the same upon the support.

15. A reflector holder comprising a plurality of separate rigid members provided each with integrally formed end portions for engagement at the one end thereof with a support and at the other end thereof with a reflector, and means whereby engagement of the holder with the reflector will tend to render said other engaging end portions ineffective, thereby facilitating positioning of the holder preparatory to effecting engagement of the holder with a support.

In testimony whereof, I hereby affix my signature.

NIELS LANG.