Oct. 28, 1952 F. G. VAN DYKE 2,616,030

LIGHT INTENSIFYING ATTACHMENT FOR ELECTRIC BULBS

Filed June 17, 1949

FIG. 1.



FIG. 2.



FIG. 3.

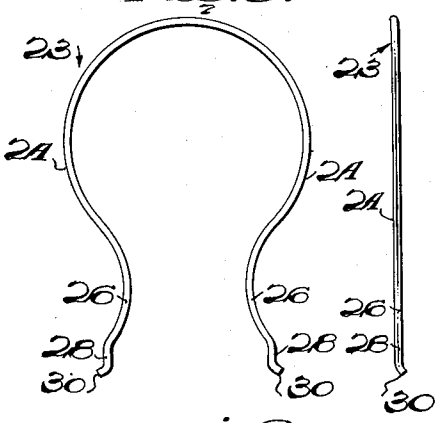


FIG. 4.

FIG. 5.

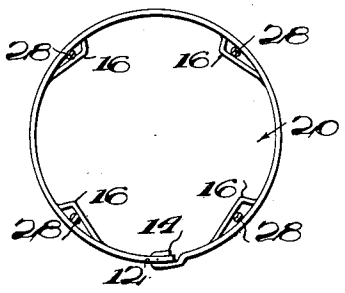


FIG. 6.

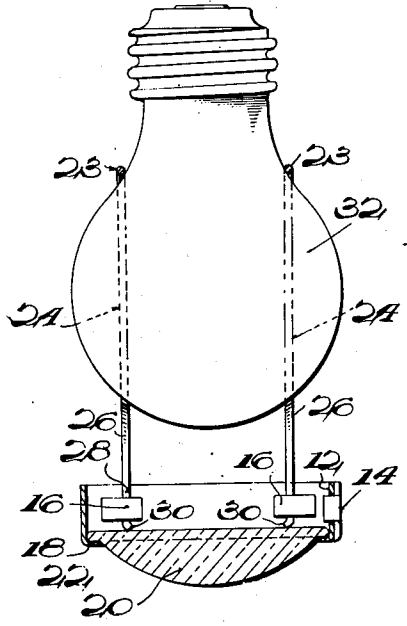
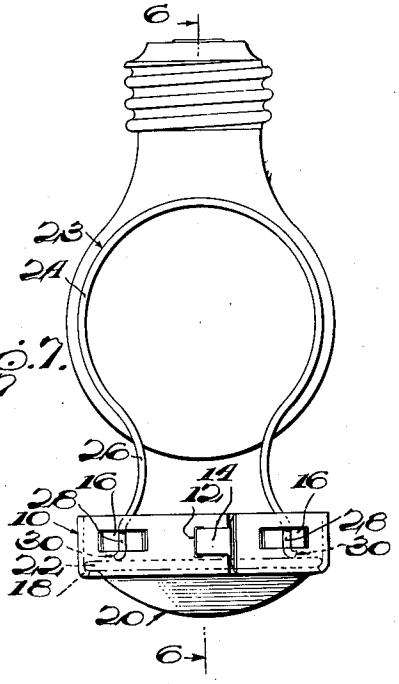


FIG. 7.



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LIGHT INTENSIFYING ATTACHMENT FOR ELECTRIC BULBS

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3 Claims. (Cl. 240—151)

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This invention relates to a light intensifying mechanism and has particular reference to a device for use in conjunction with the conventional incandescent light bulb.

An object of the invention is to collect and intensify the rays emanating from an ordinary incandescent light bulb by means which may be readily shifted from one bulb support to another and removed entirely when not in use.

Another object of the invention is to so construct an arrangement for accomplishing the desired purpose that it embodies but a few component parts which may be easily and inexpensively made and which may be readily and cheaply assembled.

Still another object of the invention is to so construct and arrange the various essential component elements of the device that it may be packaged in partially disassembled condition, requiring a minimum of space for storage and shipment, and subsequently assembled by the purchaser without need for mechanical skill or ingenuity.

Various other objects and meritorious features of the invention will become apparent from the following description taken in conjunction with the drawings, wherein like numerals refer to like parts throughout the several figures and wherein:

Fig. 1 is a plan view of a strap from which the lens supporting collar is formed;

Fig. 2 is a top plan view of the strap;

Fig. 3 is a front view of one of the resilient supporting arms;

Fig. 4 is a side view thereof;

Fig. 5 is a plan view of the assembled device;

Fig. 6 is a section through 6—6 of Fig. 7, and

Fig. 7 is an elevation of the assembled device in use.

My improved device comprises broadly a lens holder having a lens positioned therein and a pair of resilient supporting arms which are adapted to embrace the wall of an incandescent light bulb to position the lens adjacent the bulb. The lens holder is preferably formed from a strip 10 provided with a slot 12 adjacent one end and a tongue 14 which forms the terminal portion of the other end. At regularly spaced intervals along the length of the strip, bearings or straps 16 are struck from the body thereof and a lip 18 extends along one margin of the strip away from the plane thereof in the same direction as the straps.

To assemble the lens component of my device the strip 10 is simply wrapped around the circumference of a lens 20, preferably a lip portion 22 thereof, the margin of the lens or lip portion 22

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seating upon the lip 18 of the strip. When wrapped tightly about the lens the tongue 14 is inserted in slot 12 and turned back to overlie the other end of the strip as indicated clearly in Figs. 5, 6 and 7, thus forming a holder for the lens in the form of a cylindrical collar.

The straps 16 are spaced from lip 18 a distance somewhat greater than the thickness of the margin or lip 22 of the lens. Since these straps extend radially inwardly from the wall of the collar, they overlie the base of the lens and preclude displacement thereof away from the supporting lip 18 of the lens holder or collar.

To complete the assembly a pair of resilient supporting arms broadly indicated by the numeral 23 are secured to the lens holder in opposed relation. One of these arms is illustrated in Figs. 3 and 4 and preferably comprises a wire bent to provide a substantially circular gripping portion 24 merging through restricted neck portions 26 into a pair of attaching legs 28, each of which is slightly turned at its end as indicated at 30 to provide a locking toe for purposes hereinafter to be described.

These supporting arms are preferably made of spring wire. Legs 28 are tensioned by urging them together and then inserted into adjacent straps extending radially inwardly from the wall of the cylindrical lens supporting collar. After so inserting the legs of each supporting arm into the straps, the tension is released and the spring in the wire forces the toes 30 into locking engagement with the underside of the straps. In this position the toes also bear against the face of the lens 20 to firmly position the same against the lip 18 against which the lens is seated on its other side.

So completed, the intensifier is adapted to be readily slipped over a conventional incandescent bulb 32 of any normal size, the arms 23 yielding outwardly and tensioning against the wall of the bulb to firmly secure the lens in position with reference thereto. The length of supporting arms 23 and the power and other characteristics of the lens 20 are such that the distance between the lens and the adjacent surface of the bulb is best suited for producing the desired intensification of light at a given distance from the lens. It will be apparent that the intensifier may be attached to a bulb in any of an almost infinite number of positions to thereby direct the intensified rays along any selected path.

While the construction and assembly as described herein possess numerous advantages from the point of view of both economy of parts and

speed of assembly, the invention is not limited to the specific arrangement shown herein. Other means for retaining the lens in the lens holder may be utilized and supporting arms of different configurations may be attached to the lens holder in other ways without departing from the inventive concept involved.

The specific construction disclosed herein is particularly suitable for packaging and distribution to the consumer with minimum cost. Depending entirely upon the manner of distribution to the ultimate consumer which is selected, the elements may be packaged entirely disassembled or partially assembled. For instance, the consumer package may include the strip **10**, the lens **20**, and two supporting arms **23** entirely disassembled, thus permitting use of a very flat package or container. As hitherto emphasized, assembly from this totally disassembled condition requires absolutely no mechanical skill or ingenuity. On the other hand, the strip **10** may be fashioned into a supporting collar and the lens positioned therein by the manufacturer, in which case the package would contain the assembled lens and holder together with two supporting arms **23** for insertion in the lens holder by the purchaser.

Again it should be emphasized that, while a specific embodiment has been described in detail, various modifications may be apparent to those skilled in the art, and for that reason I wish to limit myself only within the scope of the appended claims.

What I claim is:

1. A device of the class described comprising a collar having a lip extending radially inwardly around one end margin, a lens seated on said lip, straps extending radially inwardly from the wall of said collar into overlying relationship with the margin of the lens on the side opposite said lip whereby removal of the lens from the collar in either direction is precluded, and resilient supporting arms having leg portions detachably engaged in said straps, said supporting arms being spaced and adapted to embrace an incandescent light bulb.

2. A device of the class described comprising a cylindrical collar having a lip extending radially inwardly around one end margin, a lens seated on said lip, spaced straps integral with and extending radially inwardly from the wall of said collar into overlying relationship with the margin of the lens on the side opposite said lip whereby removal of the lens from the collar in either direction is precluded, and resilient supporting arms having leg portions detachably engaged in said straps, said supporting arms being spaced and adapted to embrace an incandescent light bulb.

3. A device of the class described comprising a cylindrical collar having a lip extending radially inwardly around one end margin, a lens seated on said lip, circumferentially spaced continuous straps struck from and extending radially inwardly from the wall of said collar into overlying relationship with the margin of the lens on the side opposite said lip whereby removal of the lens from the collar in either direction is precluded, and resilient supporting arms having leg portions detachably engaged in said straps, said supporting arms being spaced and adapted to embrace an incandescent light bulb.

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