

R. M. DIXON.  
SHADE.  
APPLICATION FILED MAY 3, 1909.

994,577.

Patented June 6, 1911.

Fig 1.

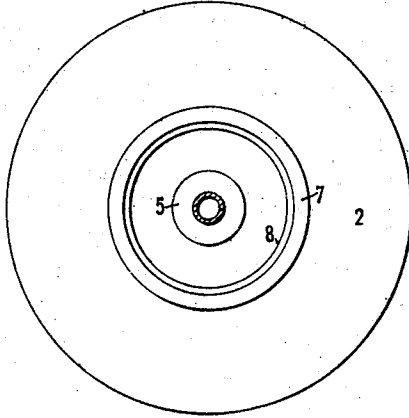


Fig 2.

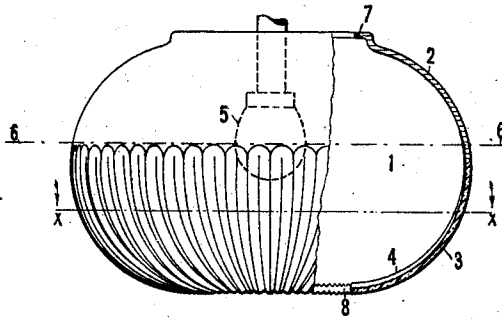
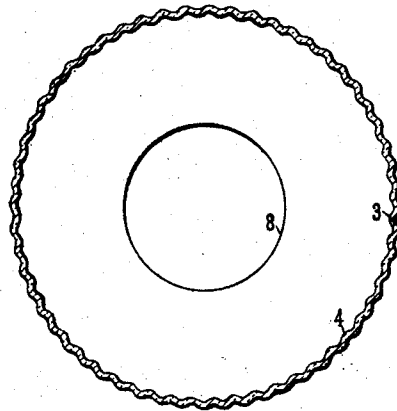


Fig 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ROBERT M. DIXON, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE SAFETY CAR HEATING & LIGHTING COMPANY, A CORPORATION OF NEW JERSEY.

## SHADE.

994,577.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed May 3, 1909. Serial No. 493,595.

To all whom it may concern:

Be it known that I, ROBERT M. DIXON a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Shades, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to light distributing means.

One of the objects thereof is to provide simple and practical means for distributing light from a source in a desired direction.

Another object is to provide means of the above type whereby the light is evenly diffused over the desired area.

Another object is to provide means of the above types of cheap and durable construction and efficient action.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing, wherein is shown one of various possible embodiments of this invention, Figure 1 is a plan view thereof. Fig. 2 is a side elevation, partially broken away in order to disclose the structure more clearly. Fig. 3 is a sectional view taken substantially on the line X—X of Fig. 2.

Similar reference characters refer to similar parts throughout the several views of the drawings. As conducive to a clearer understanding of this invention, it may here be noted that in the lighting of cars for which the apparatus hereinafter described is peculiarly adapted, it is highly desirable that the light be economically used. It is also of importance not only that the light be directed downwardly to avoid waste, but that it be evenly distributed throughout the length of the car to avoid crowding beneath the lamps and give the entire interior a bright appearance. On the other hand, the lighting apparatus should be simple and durable, and readily maintained in clean condition, or it will not stand the jarring

and vibration and exposure to dirt and cinders incident to railway use.

The above and other advantageous features are attained in constructions of the nature hereinafter described.

Referring now to Fig. 2 of the accompanying drawing, there is shown a glass shade 1 the upper portion 2 of which is of obscure glass, that is, of such nature as to impede transmission of light. This is preferably formed of the so-called opalescent glass which has been found peculiarly adapted for use in this relation. The lower portion 3 of shade 1 formed integral of the portion 2 is of clear glass, and is provided with radial irregularities or ribs 4 adapted to refract the light irregularly and thus evenly diffuse all light passing therethrough. The source of light itself, preferably of the inverted gas mantle type, is shown at 5, and is so positioned as to bring its effective center substantially within the plane indicated by the line 6 at which the portions 2 and 3 meet. The upper portion of the shade is preferably provided with an inwardly directed flange 7 mounted upon the fixture, and as shown there is provided a lower opening 8 through which the gas may be lighted, although it is to be understood that this invention is not limited to these features of construction. It may here be noted that the term "shade" is used throughout this description and the following claims in a broad sense to comprehend any device used in connection with a source of light to direct, modify, or otherwise affect the light emitted.

In the use of this embodiment of the invention, the same is mounted about a source of light, preferably as indicated substantially the entire light passing upwardly being downwardly reflected at the inner surface of the portion 2 of the globe by reason of its semi-opacity. There is, however, just sufficient light permitted to pass as to illuminate the upper portion of the car or other apartment to the small degree desired. All of the light passing directly in a general downward direction from the source, or indirectly by reflection from the upper part of the shade, is passed through the portion 3 and evenly diffused about all adjacent portions of the car or apartment, being substantially undiminished in amount by its passage through this portion of the shade. The unequal illumination and sharp

glare of a strong source of light is thus done away with and the waste of light by its emission in undesired directions is thus avoided. Moreover, the entire device is of  
 5 simple and cheap construction, is strong and durable, and is readily cleaned whenever desired or necessary. Also, the appearance of the lamp is not only attractive, but is restful to the eyes.

10 It will thus be seen that there is provided illustrative apparatus in which the objects of this invention are achieved.

As many changes could be made in the above construction and many apparently  
 15 widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall  
 20 be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein  
 25 described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I

claim as new and desire to secure by Letters Patent is:

1. A shade for car-lighting apparatus having the general form of a horizontal oblate spheroid with openings at its upper and lower surfaces, the upper portion being opaque relatively to the lower portion  
 35 and the lower portion being formed in wavy corrugations grouped about the lower opening.

2. In combination, a shade for car-lighting apparatus having the general form of a  
 40 horizontal oblate spheroid with openings at its upper and lower surfaces, the upper portion being opaque relatively to the lower portion and the lower portion being formed in wavy corrugations grouped about said  
 45 lower opening, and a depending gas mantle substantially at the plane in which said portions meet whereby light is substantially concentrated at a point best adapting it to  
 50 coact with said shade.

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

ROBERT M. DIXON.

Witnesses:

JOHN T. CLARK,  
 ELMER E. ALBEE.