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C. MATISSE ET AL
REFLECTOR FOR HEADLIGHTS

Filed April 8, 1925

FIG. 1.

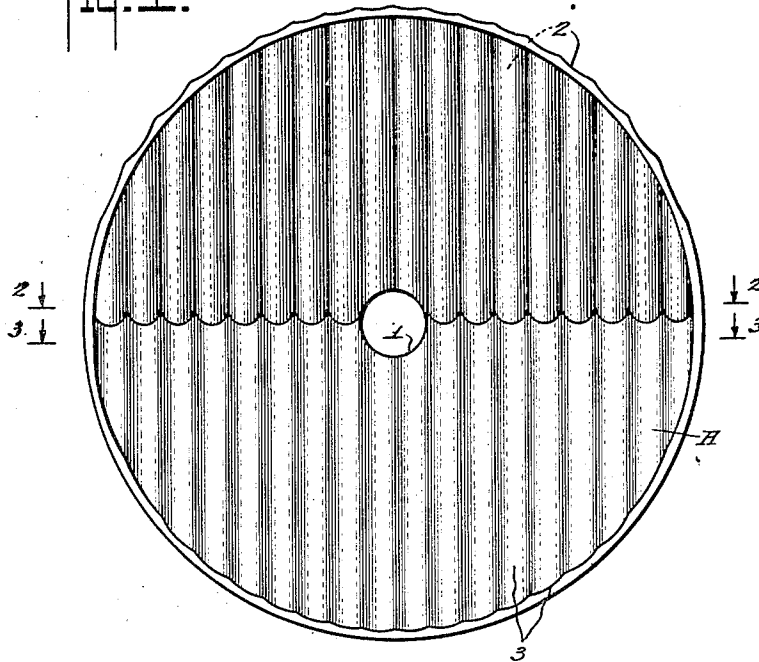


FIG. 2.

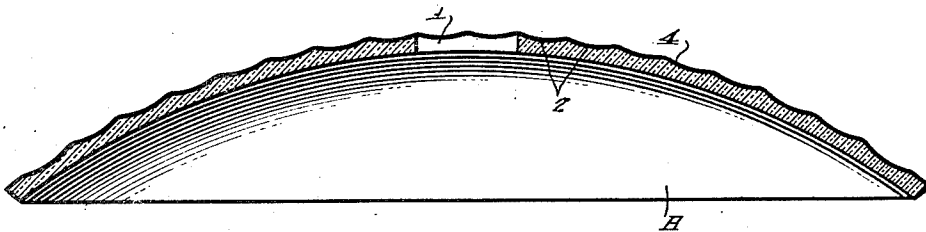
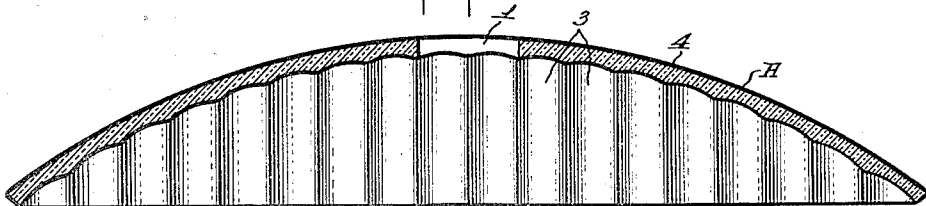


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

CARL MATISSE AND ALBERT MATISSE, OF NEW YORK, N. Y.

REFLECTOR FOR HEADLIGHTS.

Application filed April 8, 1925. Serial No. 21,658.

To all whom it may concern:

Be it known that we, CARL MATISSE and ALBERT MATISSE, both citizens of the United States, and residents of the city of New York, borough of the Bronx, in the county of Bronx and State of New York, have invented a new and Improved Reflector for Headlights, of which the following is a full, clear, and exact description.

This invention relates to reflectors and more particularly to a reflector especially designed for headlights of automobiles, locomotives, trolley cars, and other rolling stock where it is desired to give full illumination ahead and prevent glare.

The primary object of our invention is to give full reflected illumination from the light and at the same time so diffuse the light as to prevent glare, which is not only disagreeable to the occupants of approaching vehicles and pedestrians but is a source of great danger, as is well known.

A further object is to provide a reflector which may be made of any standard shape, as for example, parabolic, semi-elliptical, or give any desired shape in accordance with the desire of the trade.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts which will be more fully hereinafter described and pointed out in the claim.

In the accompanying drawings—

Figure 1 is a view in front elevation of our improved reflector;

Figure 2 is an enlarged view in horizontal section on the line 2—2 of Figure 1;

Figure 3 is an enlarged view in horizontal section on the line 3—3 of Figure 1.

A represents our improved reflector, which is composed of glass or other analogous material, and is given the desired shape so as to adapt the same either as a parabolic or other shape of reflector. This reflector A has a central opening 1 for the reception of the socket and lamp, as is customary in the art.

The invention resides in the special arrangement of reflecting surfaces, the upper half of the reflector designed to reflect the light in a soft diffused manner and the lower

half of the reflector designed to direct the rays of light in a desired path, but both surfaces functioning to give the maximum of illumination and at the same time prevent what is known in the art as glare.

In order to accomplish this result, we provide in the upper half of the reflector and at the back of the reflector a series of vertical concave grooves, as indicated clearly by the reference numeral 2 in Figure 2. These grooves, recesses or corrugations extend to a line adjacent the center line of the reflector.

In the lower portion of the reflector we provide in the front face thereof a series of vertically extending grooves, recesses or corrugations 3 which extend to approximately the center line of the reflector.

The back of the reflector as a whole constitutes a mirror in which the upper half thereof constitutes a series of convex reflecting surfaces while the lower portion of the reflector provides a series of concave reflecting surfaces. The convex reflecting surfaces function to diffuse or deflect the rays of light sidewise and upward without destroying the illumination and without glare. The concave reflecting surfaces of the lower portion of the reflector direct the rays of light in a narrower beam than the reflection from the upper portion of the reflector, hence illuminating the road for say two hundred and fifty feet ahead. By reason of this improvement the maximum beam of light is used but the upper half of the bolt or beam of light is diffused and softened.

By reason of this improved reflector the maximum of light is thrown but the upper half of the bolt of light is diffused and softened so as to prevent glare.

The invention is not limited to the precise shape of the reflector nor to the particular use but is broadly to the arrangement of reflecting surfaces which are directly opposite in the respective halves of the reflector.

Various slight changes and alterations might be made in the general form of the part described without departing from the invention, and hence we do not limit ourselves to the precise details set forth but consider ourselves at liberty to make such slight changes and alterations as fairly fall within

the spirit and scope of the appended claim.

We claim:

5 A reflector having a series of vertically disposed parallel transversely curved surfaces, the upper portion of the reflector having convex reflecting surfaces and the lower portion of the reflector having concave reflecting surfaces, said reflecting surfaces in

the upper and lower portions of the reflector meet in a horizontal line extending through 10 the axis of the reflector, said reflector composed of glass, and a mirrored surface on the back of the reflector.

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