A. MOSHER.

NON-GLARE REFLECTOR.

APPLICATION FILED DEC. 5, 1919.

1,368,281. Patented Feb. 15, 1921.

Fig. 1.

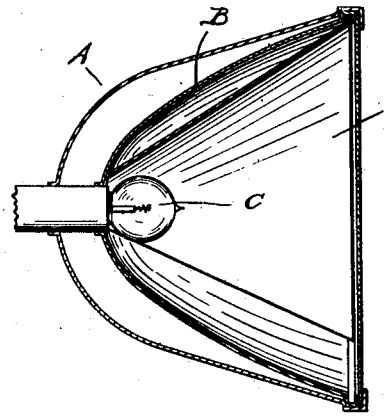


Fig. 2.

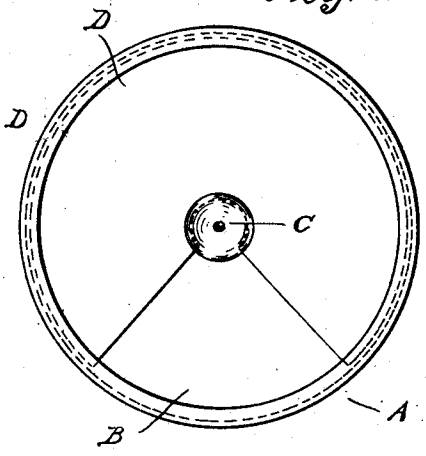
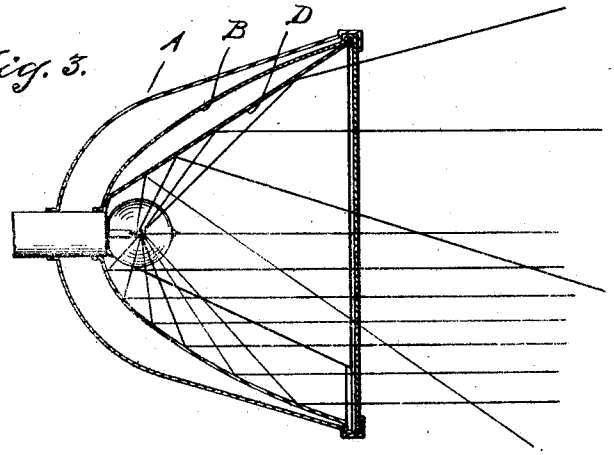


Fig. 3.



Inventor

Allen Mosher

By Chatterton Hulbert & Whittemore

Attorneys

UNITED STATES PATENT OFFICE.

ALLEN MOSHER, OF DETROIT, MICHIGAN.

NON-GLARE REFLECTOR.

1,368,281. Specification of Letters Patent. Patented Feb. 15, 1921.

Applictaion filed December 5, 1919. Serial No. 342,722.

To all whom it may concern:

Be it known that I, ALLEN MOSHER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Non-Glare Reflectors, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to headlights for vehicles and has for its object the elimination of the glare or blinding rays, while maintaining a sufficient concentration of the light to strongly illuminate the path in front of the machine. In the present state of the art parabolic reflectors are commonly used for concentrating the rays of the lamp, and the blinding glare is due to these concentrated rays. The direct rays from the lamp are not objectionable even when supplemented by reflected rays from the rear, providing that the angle of divergence is not limited, as by the use of a parabolic reflector. Heretofore, various constructions have been devised for shielding the lights, so as to obstruct any rays above the horizontal, but to accomplish this, where a parabolic reflector is used, it is necessary to obstruct more than half of the lamp area. This is objectionable as it is desirable to have some of the higher rays for the detection of obstacles ahead. With other constructions the light concentrated by the reflector is dispersed by lenses or prisms at the front, but this interferes with the best illumination of the road. With my improved construction no part of the headlight is obstructed, but the high concentration of light is limited to those rays which are directed upon the path in front of the car and are below the central axis of the lamp.

In the drawings:

Figure 1 is a vertical central section through the headlight;

Fig. 2 is a front elevation of the lamp;

Fig. 3 is a view similar to Fig. 1, showing diagrammatically the reflection of rays of light.

A is a headlight of any suitable construction provided with the usual parabolic reflector B for the concentration of the light from the lamp C arranged at the focal point. D is a segmental reflector insertible within the reflector B, but of a conical instead of a parabolic form. The reflector D covers more than one-half of the reflector B, and preferably substantially three-fourths of the surface thereof, leaving the lower quarter unobstructed.

As illustrated in Fig. 3, the rays from the lamp C, which are reflected by the conical reflector D, are not altered as to their divergence and therefore are not highly concentrated. On the other hand, the rays which are reflected by the exposed segment of the parabolic reflector B, are substantially parallel and are highly concentrated. None of these rays, however, will pass above the horizontal and they, therefore, serve to illuminate the road without any blinding glare. Thus I have combined a wide angle of illumination with a high concentration of light upon the road immediately in front of the machine.

While I have described my improvement as an attachment to a headlight having the usual parabolic reflector, it is obvious that the conical and parabolic segments of the reflector might be integral.

What I claim as my invention is:

1. In a headlight, a reflector having a lower segment of a parabolic form, and a complementary segment of conical form.

2. In a headlight, a reflector comprising a lower segment, being substantially one-fourth the entire area of parabolic form, and a complementary segment of conical form.

3. In a headlight, the combination with a parabolic reflector, of a conical reflector insertible within said parabolic reflector and covering a portion only of the area thereof, leaving the lower part of the parabolic reflector exposed.

4. In a headlight, the combination with a parabolic reflector, of a conical reflector insertible therein and covering substantially three-fourths of the area thereof.

In testimony whereof I affix my signature.

ALLEN MOSHER.