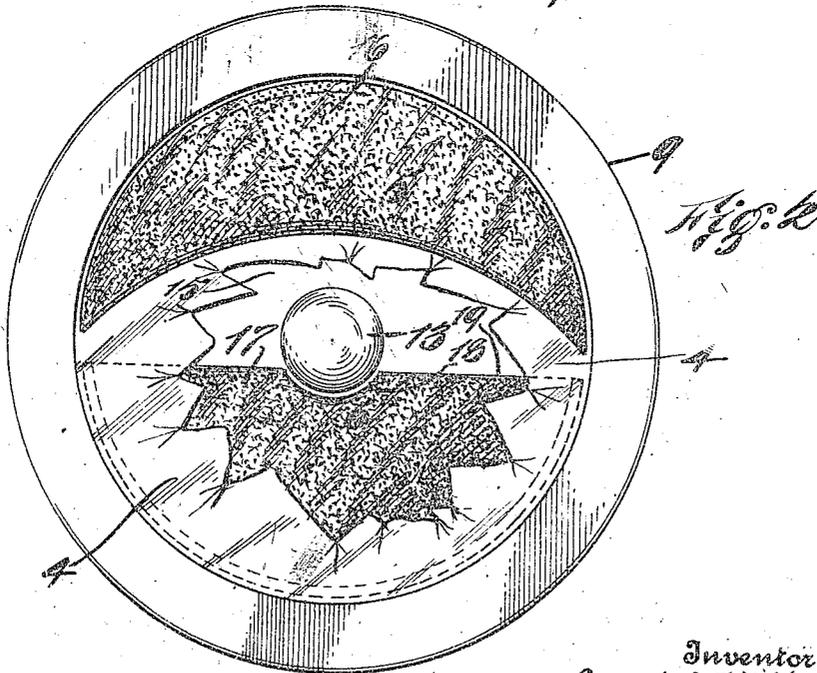
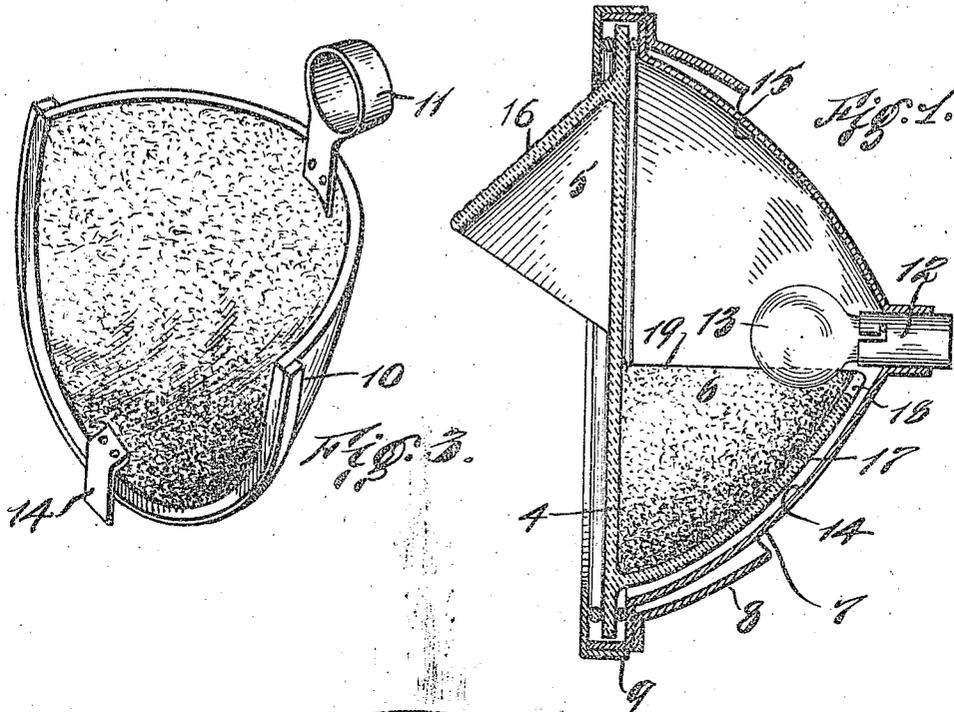


E. E. HILLYER,
HEADLIGHT LENS.
APPLICATION FILED OCT. 5, 1918.

1,298,342.

Patented Mar. 25, 1919.



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UNITED STATES PATENT OFFICE.

ERNEST E. HILLYER, OF PORT RICHMOND, NEW YORK.

HEADLIGHT-LENS.

1,298,342.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNEST E. HILLYER, a citizen of the United States, residing at Port Richmond, county of Richmond, State of New York, have invented certain new and useful Improvements in Headlight-Lenses, of which the following is a full, clear, and exact description.

This invention relates to an anti-glare headlight lens and has for an object to provide means whereby the glare, incident to the combination of an electric light and a reflector, can be obviated without materially lessening the projection of sufficient light to plainly illuminate the road ahead of a moving vehicle.

While lenses, now in use, obtain the object of, so to speak, killing the glare of head lights they also materially lessen the illuminating power of the light so much so that it is very difficult to illuminate a road for a sufficient distance ahead of a moving vehicle to insure safety.

To obtain the objects above referred to I employ a lens, which is insertible in the ordinary headlight casing, embodying a transparent member and associated translucent members, the translucent members being arranged to intercept the rays of light projected against the reflector, by the illuminating medium, and also to intercept the reflected rays of light. In other words I obtain the objects sought by intercepting the rays of light and not by diverging them out of their natural course, to any great extent, by the employment of reflecting surfaces such as supplemental or auxiliary lenses. In the accompanying drawing, which illustrates a preferred embodiment of my invention Figure 1 illustrates a vertical sectional view of an ordinary head light reflector and a portion of a casing therefor.

Fig. 2 is a front elevation thereof, the transparent portion of the lens being broken away to illustrate the inwardly projecting interceptor, and

Fig. 3 is an enlarged detail perspective view of an alternate form of interceptor.

As herein embodied my invention consists of a transparent lens member or plate 4, preferably glass having flat surfaces, a translucent angularly disposed vizer 5 and a translucent interceptor 6 which projects

inwardly from the lens plate 4, and is shaped in conformity with substantially the lower half of the parabolic reflector 7. The lens, as a whole, will be applied to the casing 8 of the headlight, being held in this instance by the ring 9. But my invention does not relate to any particular manner of mounting the lens. In this instance the vizer 5, and interceptor 6, are formed integral with the lens proper, or plate 4, but if desirable the interceptor may be a separate part as indicated in Fig. 3. When separately formed the interceptor as illustrated in Fig. 3, and indicated by 10, will be provided with means to secure it in position. For instance it could be provided with a bracket 11 to engage the socket 12 (Fig. 1.) for the bulb 13, and also with one or more plates 14 to lie between the plate 4 and the reflector. By the provision of the separate or detachable interceptor 10 an ordinary anti-glare head light lens could be rendered still more effective to kill the glare of a head light.

It is a well established fact that the annoying or glaring rays emanate from the lower portion 14 of the reflector when they are cast upwardly. While the rays which emanate from the portion 15 of the reflector will be cast downwardly and do not annoy the driver of an approaching vehicle or tend to confuse the pedestrians to any great extent, although it is desirable to modify them, to modify the rays of light which are projected by the upper portion of the reflector and the rays of light which are projected by the lower portion of the reflector is the purpose of the vizer 5 and interceptor 6, the plate portion 4 of the reflector is neutral in its action, that is to say does not act to intercept, divert or screen the rays of light. While both the vizer 5 and interceptor 6 act to diffuse the rays of light, the interceptor 6 more completely performs this function due to its position relatively to the source of light 13. To cause these elements to diffuse the light I frost the outer surface of the vizer 5 as indicated by 16 and the inner surface 17 of the interceptor 6. The interceptor 6, as can be seen, covers substantially the lower half of the reflector or that portion of the reflector which casts rays upwardly. The vizer 5 will be designed to screen a certain portion of the reflector above

the axis of the bulb 13, the exact extent of which will be determined by experiment. The angular disposition of the vizer will also be determined by experiment. It will be apparent that the interceptor 6, which is translucent will allow rays of light to pass therethrough to strike the reflector 7 and also will allow these rays to be reflected back through said interceptor. Owing to the frosting or translucency of the interceptor the rays will be diffused and will not focus, hence the glare will be eliminated. As the plate member 4 is transparent, the rays of light will pass unobstructed therethrough. The vizer 5 will act to diffuse any rays of light cast upon the road ahead of the vehicle. The combination of the translucent members 5 and 6 act to diffuse the rays of light thereby destroying the focal point, hence no glare will exist, but the diffused rays will be cast sufficiently far ahead of the vehicle to insure safety. As can be seen the interceptor 6 extends rearwardly sufficiently to prevent rays of light from striking the reflector directly. The interceptor 6 is cut away at 18 to permit of the insertion or removal of the lens, as the upper rear edge 19 of said interceptor will be located preferably in a plane above the lowermost point of the lamp bulb, but below the axis of the bulb so as not to intercept the rays of reflected light emanating from the middle zone of the reflector

throughout the width thereof, as these are the rays which chiefly illuminate the road.

What I claim as my invention is:—

1. In a headlight lens a transparent plate member, a translucent member extending forwardly from said plate, and a translucent member extending rearwardly from said plate.

2. In a headlight, a transparent plate member, a light intercepting medium extending forwardly and downwardly from the upper portion of the plate, and a light intercepting medium extending rearwardly and upwardly from the lower portion of said plate.

3. In a headlight lens, a transparent glass plate portion having flat surfaces, a vizer integral therewith and extending forwardly and downwardly from the upper portion of the outer surface of said plate, and an intercepting medium also integral with said plate and extending rearwardly and upwardly from the inner surface thereof, the outer surface of said vizer and the inner surface of said interceptor being frosted.

Signed at Port Richmond, N. Y., this 1 day of October, 1918.

ERNEST E. HILLYER.

Witnesses:

FRANK FOGGIN,
MARY W. STERNER.