

E. ZIMMERMANN, Jr.
REFLECTOR.
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1,370,255.

Patented Mar. 1, 1921.

Fig. 1.

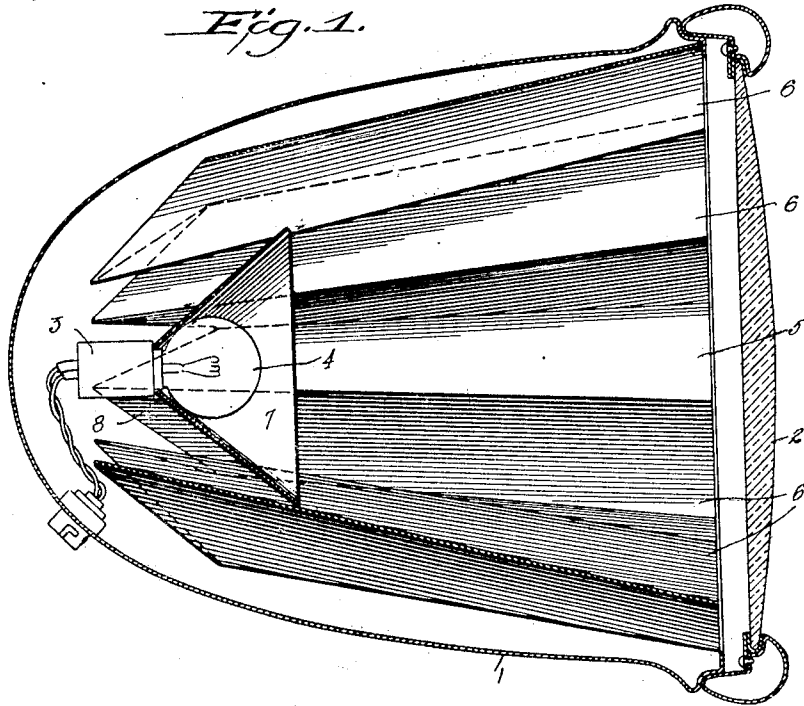
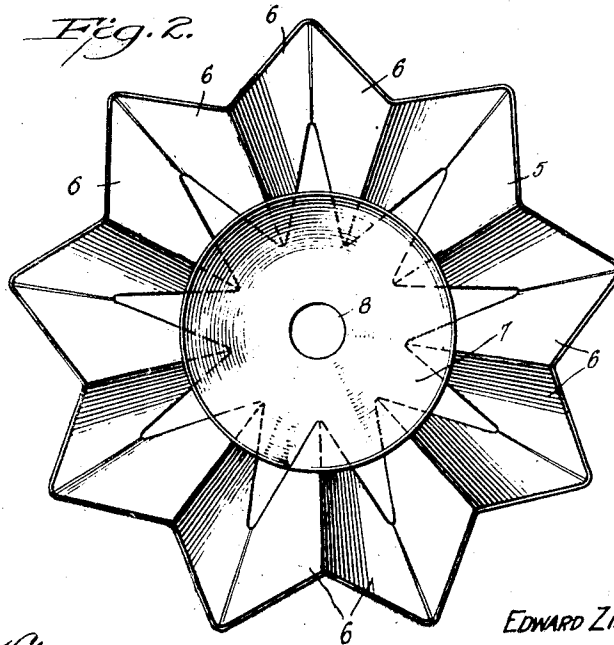


Fig. 2.



WITNESSES

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REFLECTOR.

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To all whom it may concern:

Be it known that I, EDWARD ZIMMERMANN, Jr., a citizen of the United States, and a resident of Grand View, (Hudson Heights post-office,) in the county of Bergen and State of New Jersey, have invented a new and Improved Reflector, of which the following is a full, clear and exact description.

This invention relates to improvements in reflectors, and more particularly to reflectors for automobile headlights, an object of the invention being to provide a reflector which can be inserted in an ordinary headlight casing and which will increase the area and power of illumination and at the same time diffuse or soften the light so as to prevent glare.

A further object is to provide a reflector which can be inserted in a headlight casing without altering the construction of the latter so that it can be easily and economically installed in headlights as they are ordinarily made.

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

In the accompanying drawings;

Figure 1 is a view in longitudinal section illustrating my improved reflector in position in a headlight casing.

Fig. 2 is an end view of the reflector removed.

1 represents the ordinary headlight casing provided with a lens 2 at its open end and a socket 3 in its inner end for the reception of an electric bulb 4.

5 represents my improved reflector which is of general star-shape in cross section of greatest diameter or cross sectional area at its forward end and decreasing in cross sectional area to its rear end so that said reflector is of a general tapering form from its forward to its rear end. By reason of the star-shape of the reflector I provide a circular series of inclined angularly disposed reflecting surfaces 6 which reflect the light from the lamp or globe 4 from one surface to another so that the light rays are thrown or directed through the lens 2 and cover a wide area.

7 represents a conical reflector which at its apex is provided with an opening 8 to receive the attaching end of the lamp or globe

4 so that when the latter is secured in the socket 3 it will serve to clamp or hold the reflector 7 in proper position. This reflector 7 is of a diameter sufficient to engage the inner edges of the main reflector 5.

The main reflector 5 and the conical reflector 7 are both preferably of aluminum and hence the dull surfaces which are due to the metal employed cause a softening or diffusing of the reflecting action to prevent glare.

It will therefore be noted that I provide a main dull surfaced reflector of general star-shape in cross section tapering longitudinally and locate within said main reflector a smaller dull surfaced reflector which is clamped between the lamp globe and the socket.

While I utilize the full strength of the light rays from the lamp, these rays are softened and diffused by the action of the multiplicity of angular reflecting surfaces so that while a maximum of illumination is had the glare is dispensed with.

Various slight changes might be made to the general form and arrangement of parts described without departing from my invention and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. The combination with a headlight casing, a socket in the casing, and a globe in the socket, of a reflector located in the casing and of general star shape in cross-section and tapering longitudinally, said reflector of largest diameter at its outer end, and a conical reflector located within the first-mentioned reflector and around the globe.

2. The combination with a headlight casing, a socket in the casing and a globe in the socket, an aluminum reflector located in the casing and of general star-shape in cross section and tapering longitudinally, said reflector of largest diameter at its outer end, and a conical reflector having an opening at its apex receiving the lamp and clamped between the globe or the lamp and the socket, said conical reflector engaging the inner edges of the first mentioned reflector.

EDWARD ZIMMERMANN, JR.