



# UNITED STATES PATENT OFFICE

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## HEADLIGHT REFLECTOR

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3 Claims. (Cl. 240—41.1)

This invention relates to a reflector for the headlights of automobiles and it aims to provide a construction affording maximum reflection without glare and wasted light, and with the maximum light rays being thrown outwardly and downwardly affording greater visibility, and a construction which attains these objects even with the use of ordinary electric bulbs.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawing illustrating an operative embodiment.

In said drawing:—

Figure 1 is a view in front elevation showing the improved reflector, and

Figure 2 is a substantially central vertical sectional view taken on the line 2—2 of Figure 1, but on an enlarged scale.

Referring specifically to the drawing, the reflector is generally designated 10, being of metal or any other suitable material and having its inner surface 11 highly polished, mirrored or the like to afford a reflecting surface.

The lower edge at the front of the reflector is longitudinally arcuate as shown at 12 and from the same a portion 13 of the reflector is curled forwardly, upwardly, and inwardly, terminating in a straight edge 14 at the maximum width of the reflector. About such edge 14, the reflector is completely open at the front as shown in Figure 2. Disposed behind the curled portion 14 is an ordinary electric bulb 15. Rearwardly of the bulb 15 the lower wall of the reflector as at 16 curves inwardly so that the upper surface is convex, the lower wall of the reflector thus being a compound curve. The main wall 17 of the reflector, it will be noted, is not of truly spherical shape, but is shaped according to a combination of curves.

As a result no light rays can emerge without being reflected and hence the light rays are under control, eliminating waste, glare and the large "fan" of light seen against the reflector of ordinary headlights by oncoming motorists.

Due to the construction described, the light rays striking the portion 16 are reflected to the back and upper walls and the beam of light thus reinforced, and all light rays will emerge forwardly and downwardly. Due to the continuity in shape of the side walls like the rear wall, a broad light is afforded which covers the entire width of the highway.

The focus may be obtained by adjustment of the bulb and by tilting the lamp.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

What I claim as my invention is:

1. A reflector for headlights having a relatively high open face and a relatively low front wall portion below its open face, curving forwardly, upwardly and inwardly and adapted to contain a light source therein, a bottom wall of the reflector extending from said portion with the rear part thereof convexly curved interiorly of the reflector, the front wall portion and said part being at substantially the same height, and a concave side and rear portion extending upwardly from said bottom wall to substantially the front upper edge portion of the reflector, the reflector being of greater height than depth.

2. A reflector for headlights having a relatively high open face and a relatively low front wall portion below its open face, curving forwardly, upwardly and inwardly and adapted to contain a light source therein, a bottom wall of the reflector extending from said portion with the rear part thereof convexly curved interiorly of the reflector, the front wall portion and said part being at substantially the same height, and a concave side and rear portion extending upwardly from said bottom wall to substantially the front upper edge portion of the reflector, the reflector being of greater height than depth and progressively decreasing in width.

3. A reflector for headlights having a relatively high open face and a relatively low front wall portion below its open face, curving forwardly, upwardly and inwardly and adapted to contain a light source therein, a bottom wall of the reflector extending from said portion with the rear part thereof convexly curved interiorly of the reflector, the front wall portion and said part being at substantially the same height, and a concave side and rear portion extending upwardly from said bottom wall to substantially the front upper edge portion of the reflector, the reflector being of greater height than depth and progressively decreasing in width, the upper edge of said first mentioned portion being substantially straight and of the maximum width of the reflector.

CHARLES E. ROSE.

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