Sept. 22, 1925. 1,554,315

F. W. WHITE

REFLECTOR FOR HEADLIGHTS

Filed Feb. 26, 1925

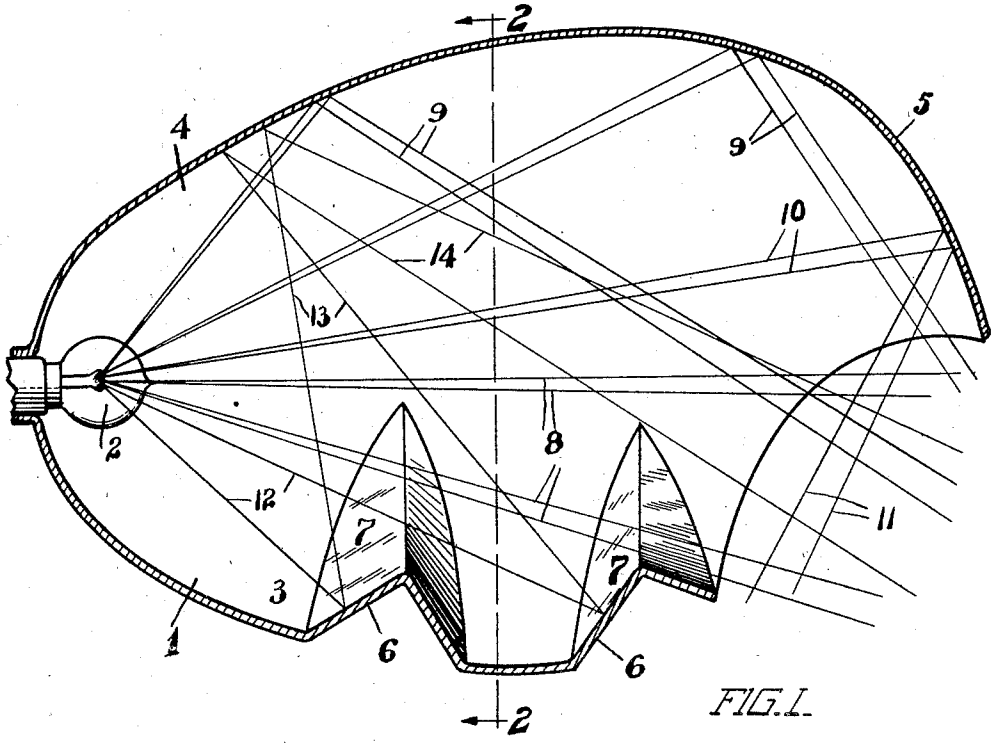


FIG. 1.

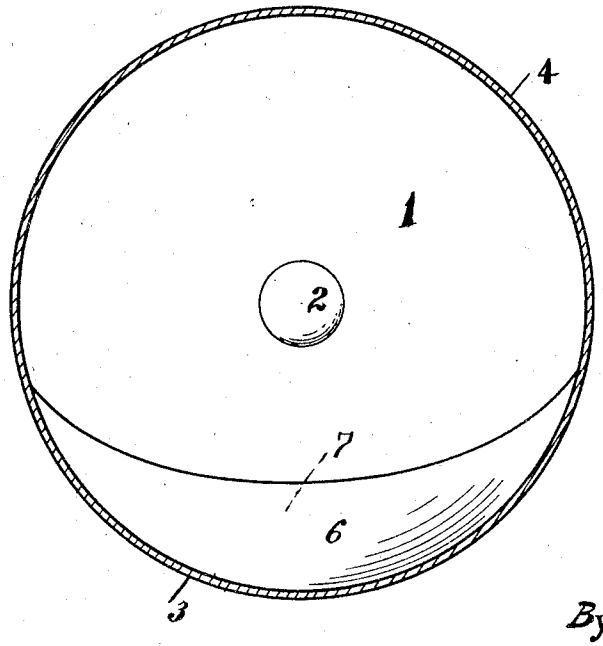


FIG. 2.

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UNITED STATES PATENT OFFICE.

FRANCIS WILFRED WHITE, OF PETERBOROUGH, ONTARIO, CANADA, ASSIGNOR OF ONE-THIRD TO FREDERICK JOSEPH GREEN, OF PETERBOROUGH, CANADA.

REFLECTOR FOR HEADLIGHTS.

Application filed February 26, 1925. Serial No. 11,791.

To all whom it may concern:

Be it known that I, FRANCIS WILFRED WHITE, a subject of the King of Great Britain, resident of the city of Peterborough, in the Province of Ontario, in the Dominion of Canada, have invented new and useful Improvements in Reflectors for Headlights, of which the following is a specification.

The invention relates to reflectors for headlights as described in the present specification and shown in the accompanying drawings which form part of the same.

The invention appertains to headlights for motor vehicles and has for its object the production of a reflector that will eliminate the objectionable glare caused by upwardly directed rays issuing from the headlight and reflect them downwardly upon the road surface where they are most needed, thus concentrating the illumination and directing it to its point of greatest utility.

The invention consists substantially of a parabolic reflector provided with a substantial hood or visor for the purpose of downwardly diverting those rays which would ordinarily radiate from the source of light at an upward angle from the headlight, and coacting with this hood or visor are a series of transverse reflecting surfaces in the bottom half of the parabolic reflector, so disposed that light rays falling upon its lower half are reflected upwardly onto the upper half at such an angle that they are reflected therefrom to pass out of the headlight concurrent and diffused with the main beam.

Referring to the drawings, Figure 1 is a vertical sectional view of the reflector embodying the invention.

Figure 2 is a sectional view thereof taken on the line 2—2 of Figure 1.

Like numerals of reference indicate corresponding parts in each figure throughout the drawings.

In the drawings the reference numeral 1 designates generally a parabolic reflector which is provided with the usual electric light bulb 2 at its rear. 3 indicates the lower half of such reflector and 4 the upper half, which halves are shown in the drawing as being integral one with the other. It is, however, intended that for the sake of convenience of manufacture, they shall be stamped out of sheet material in two separate parts and united in any convenient manner. This form of construction does not in any event form a part of the invention.

At the front of the reflector is a substantial reflective hood or visor which extends downwardly from the upper half 4 to a point approximating a horizontal line bisecting the source of light 2. The lower half 3 is provided with a series of indentures 6 successively arranged and substantially inverted V-shaped in cross section. These indentures provide transverse crescent shaped reflective faces 7 that rise acutely from the bottom of the reflector. Whilst these reflective faces are preferably formed by indentures as described, it will be manifest that the same could be composed of separate plates fitted in the lower half of the reflector, or otherwise devised to achieve the formation of the afore-described reflective faces 7.

It will be seen by this construction that certain of the rays emanating from the bulb 2 will issue from the reflector through its mouth in a direct manner as at 8 while others striking the upper half 4 will be diverted therewith as at 9. Light rays as at 10 which would ordinarily be radiated through the headlight at an upward angle are reflected downwardly by the visor 5 as at 11, thus augmenting the main light shaft; other rays 12 emanating from the light supply source strike the reflector faces 7 and instead of being reflected by the lower half 3 upwardly and outwardly from the reflector, by reason of the angularity of these faces are redirected as at 13 onto the upper half 4, whence they are reflected as at 14 at such an angle that they flow with the main light beam.

It will be seen by this construction that there is a definite cooperation by the hood 5 and the disposition and arrangement of the reflective faces 7, their joint action serving not only to conserve the light but to direct it to the road over which the vehicle is traversing.

What I claim is:—

A parabolic reflector having its upper half extended forwardly and downwardly curved to provide a substantial visor and the forward portion having its lower half successively indented transversely of its

length forming integral indentures V-shaped in cross-section and crescent shaped in side elevation having their greatest width at the bottom of the reflector and their gradually narrowing ends extending upwardly with the curvature of the reflector-wall, merging therewith slightly below the horizontal axis of the reflector, said indentures being spaced from each other and the innermost faces of said indentures constituting reflectors for diverting rays rearwardly and upwardly.

Signed at the city of Peterborough, Canada, this 23rd day of February 1925.

FRANCIS WILFRED WHITE.