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L. G. WILLIAMS

LAMP FOR VEHICLE HEADLIGHTS AND THE LIKE

Filed Oct. 23, 1923

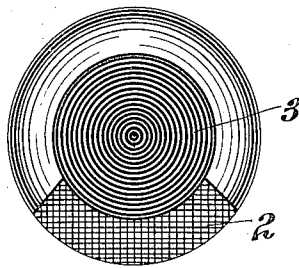


Fig. 1.

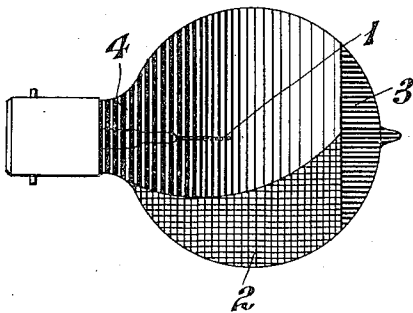


Fig. 2.

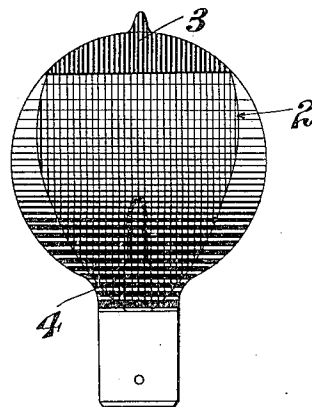


Fig. 3.

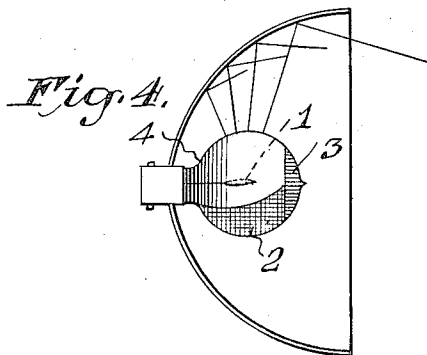


Fig. 4.

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UNITED STATES PATENT OFFICE.

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LAMP FOR VEHICLE HEADLIGHTS AND THE LIKE.

Application filed October 23, 1923. Serial No. 670,318.

To all whom it may concern:

Be it known that I, LEWIS GARFIELD WILLIAMS, subject of the King of Great Britain, residing at Corsyrhelig, Godrergeaig, Glamorganshire, South Wales, have invented new and useful Improvements in Lamps for Vehicle Headlights and the like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object to obviate the dazzling effect by headlights, more particularly those of motor vehicles.

According to my invention I provide a lamp bulb which is partially covered with opaque substance, and with a substance adapted to filter the light so as to prevent glare. In the preferred embodiment of my invention the opaque substance presents to the filament of the lamp a reflective silvered surface, and the filtering substance is a blue colour, or other efficient red ray absorbing colour.

The filter colour is at its densest at the nose or foremost portion of the lamp so as to screen the filament from the eyes of pedestrians or drivers of other vehicles, and the silvered coating is located over the base of the lamp extending from the dense filter coloured nose portion to the rear of the lamp, but preferably not embracing the whole of the lower half of the lamp bulb, so that in plan a substantially shield-shaped concave mirror is provided in the lower portion of the lamp which will reflect rays of light directed from the filament downwards, upwards to the roof portion of the parabolic reflector of the lamp casing. Consequently the rays of light will be reflected outwardly and downwardly in an intensified form. To prevent glare ahead by the reflection of the portion of the parabolic reflector immediately in rear of the lamp bulb, the rear portion of the lamp bulb is also preferably coated with a dense coloured blue or other suitable colour. Preferably the latter portion of colouring merges from its maximum density immediately in the rearmost portion of the bulb to an almost wholly transparent coating joining the colour on the nose of the lamp, i. e. that portion of the bulb which is not covered by the silvered substance and the colour substance at the

nose, is covered with a pigment, preferably blue or green which diminishes in density from the rear of the bulb to the front. By this means a powerful soft light is projected which does not in any way have a dazzling or glaring effect, and further which is not directed directly ahead of the lamp above its axial line of sight, whereby pedestrians or drivers of other vehicles do not have their vision affected adversely by the lights of the headlamps.

To illustrate clearly the nature of the preferred embodiment of my invention I have appended herewith a sheet of drawings illustrating same wherein:—

Fig. 1 is an end view of the nose of the lamp.

Fig. 2 is a side view of the lamp.

Fig. 3 is a bottom view of Figs. 1 and 2.

Figure 4 is a view similar to Figure 2 showing the lamp operatively positioned with respect to a parabolic reflector.

Referring to the drawings a conventional and almost standard form of headlamp bulb is shown and upon the half through which the light from the filament 1 would be directed downwards is provided a coating 2 of highly reflective substance having an opaque backing. This coating may be on the inside or outside of the bulb, and preferably it does not cover the whole of the lower half of the lamp bulb but is substantially of shield like configuration in plan very much as shown in the drawings.

To prevent glare ahead of the lamp, i. e. along the axial line of sight of the lamp, the nose or foremost part of the bulb is covered with a dense coloured pigment 3, of a sufficient area to obscure the filament from an observer in front of the lamp. The colour of this pigment is preferably blue or green in order to ensure a maximum absorption of red rays. To ensure that the rearmost portion of the parabolic reflector of the lamp does not reflect a dazzling white light directly ahead of the lamp, the rear portion of the bulb is also preferably coated with a coloured pigment 4, likewise preferably having blue or green for its base. This latter coating of material may extend in various gradations all over the portion of the bulb not covered by the portions 2 and 3, but preferably it is densest at the rear or base portion of the lamp and gradually merges into an almost transparent

coating adjoining the portion 3, so that when the lamp is positioned in front of a parabolic reflector as shown in Figure 4, rays of light from the lamp will be excluded from that portion of the reflector which would direct them upward and are admitted only to the portion of the reflector which directs them downward.

What I claim is:—

- 10 A bulb for use with a parabolic reflector having a coating of an opaque substance upon one side wall thereof, and a coating of red ray absorbing substance upon its re-

maining surface, the latter coating having a maximum density at the base and nose of the bulb and at the intermediate portion of said remaining surface decreasing in density from the base to the nose.

In witness whereof I have signed this specification in the presence of two witnesses.

LEWIS GARFIELD WILLIAMS.

Witnesses:

/ A. S. MICKLIN,
T. O. HUGHES.