W. S. ELSEY.

HEADLIGHT.

APPLICATION FILED SEPT. 21, 1921.

1,437,731. Patented Dec. 5, 1922.

Fig. 1

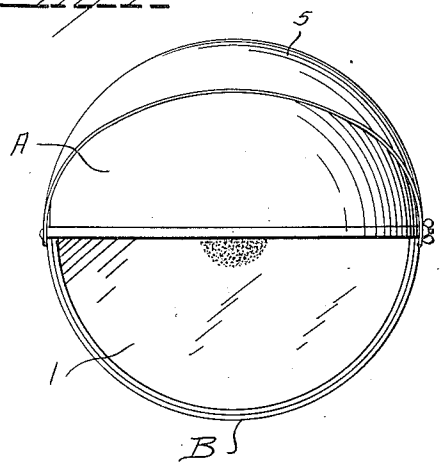
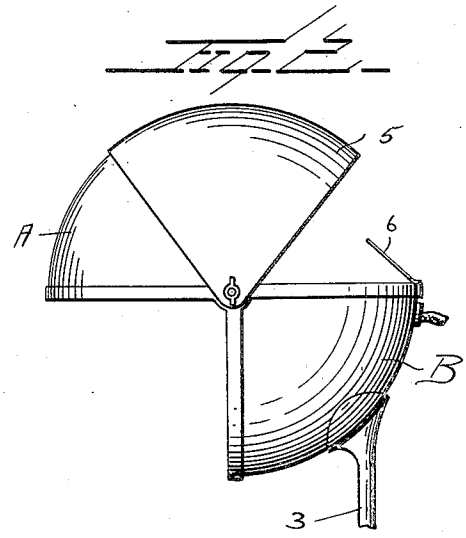


Fig. 2



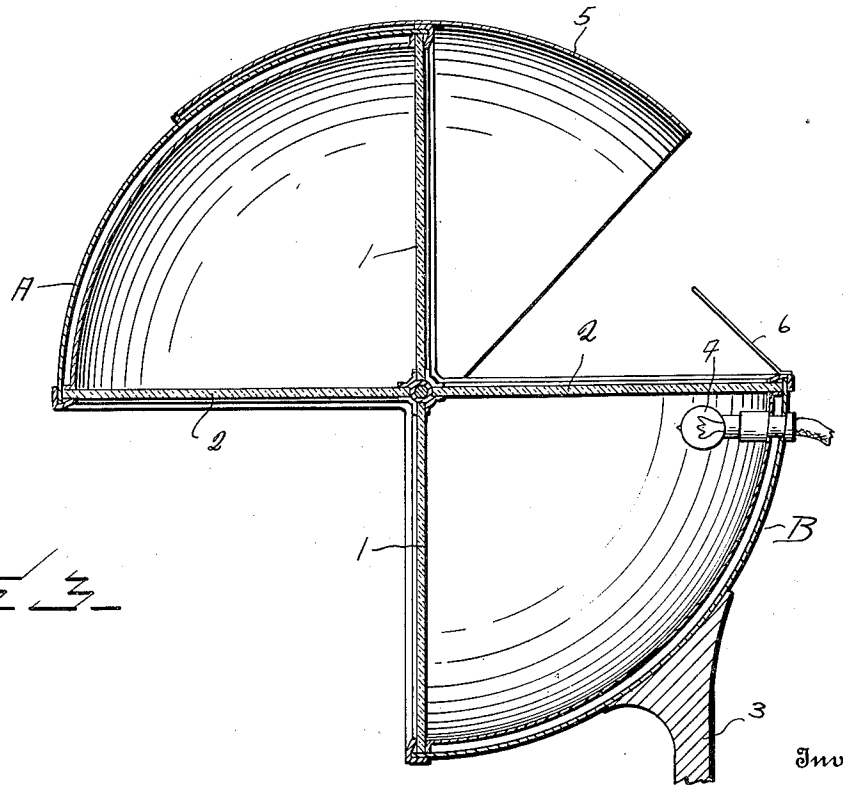


Fig. 3

Inventor

W. S. Elsey

By Watson E. Coleman

Attorney

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UNITED STATES PATENT OFFICE.

WILLIAM S. ELSEY, OF CAIRO, ILLINOIS.

HEADLIGHT.

Application filed September 21, 1921. Serial No. 502,149.

To all whom it may concern:

Be it known that I, WILLIAM S. ELSEY, a citizen of the United States, residing at Cairo, in the county of Alexander and State of Illinois, have invented certain new and useful Improvements in Headlights, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in headlights, and it is an object of the invention to provide a novel and improved device of this general character having a single light source, together with means whereby the rays emitted from said source are directed both forwardly and rearwardly, the rearwardly directed rays serving to illuminate the side of the vehicle to expose its lines to prevent sideswiping and also to light up its lines to enhance the beauty of the vehicle when traveling after nightfall.

Another object of the invention is to provide a novel and improved device of this general character embodying a single light source, the lower rays emitted from said source being forwardly directed while the upper rays emitted from the source are bended to throw rearwardly, the upper portion of the device serving as a means to prevent the forwardly directed light rays from blinding persons in advance of the car and thus fully complying with the traffic regulations.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved headlight whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in front elevation of a headlight constructed in accordance with an embodiment of my invention;

Figure 2 is a view in side elevation of the device as herein disclosed; and

Figure 3 is an enlarged vertical sectional view taken through my improved device.

As disclosed in the accompanying drawings, my improved headlight comprises two sections A and B, each of which is concavo-convex and substantially of the form of a quarter sphere. The rear face of the section A and the forward face of the section B comprise vertically alined lenses or glass panels 1 while the upper face of the section B and the lower face of the section A comprise the substantially horizontally alined lenses or glass panels 2.

By this arrangement, the section A of the headlight is positioned above and forwardly of the section B so that the section B provides means for illuminating ahead of the car to which the headlight is applied while the section A operates to direct the light rearwardly.

The headlight is adapted to be supported in applied position in any desired manner such as the bracket 3 indicated in fragment in the accompanying drawings.

The upper rear marginal portion of the section B of the headlight and at the transverse center thereof is provided with a light source 4 herein disclosed as an electric lamp, the same being adapted to be operated by a suitable source of electrical energy carried by the vehicle.

When the source 4 is illuminated, the beams of light will extend forwardly of the vehicle through the lens or glass panel 1, the inner wall of the section B serving as a reflector to assure such throwing of the light. The light from the source 4 will also pass through the lenses or glasses 2 and be bended and thrown rearwardly by the internal reflecting wall of the section A whereby the side of the car or vehicle will be effectively illuminated in a manner to prevent sideswiping and also to clearly bring out the lines of the car so that the beauty of the vehicle will be enhanced and particularly when driving after nightfall.

5 denotes a hood pivotally supported for swinging movement and which, when in full open position, overlies the upper section A but which is adapted to be swung rearwardly to partially close the space between the rear face of the upper section A and the top face of the lower section B and which is particularly desirable in order to prevent the light extending upwardly into the car and thereby blinding the driver. The hood 5 may also be dropped down to shut off the light from being projected forwardly, in its entirety or in part.

The relative arrangement of the sections A and B causes the upper section A to serve

as a shield to prevent the light from blinding persons in advance of the car.

The upper marginal portion of the section B immediately adjacent the light source 4 is provided with a supplemental metal reflector 6, said reflector being of a width substantially equal to the major width of the source 4 and extending upwardly and forwardly. The reflector 6 is set inwardly of the section B a distance sufficient to permit the desired closing of the hood 5. This reflector 6 serves to direct a portion of the light rays against the reflecting surface of the section A which, in turn, will recast the light rays partly to the rear and partly down onto the reflecting surface of the section B and then forwardly. This reflector 6 thereby serves effectually to prevent the light rays from the source 4 being directly projected upwardly and rearwardly.

From the foregoing description it is thought to be obvious that a headlight constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

1. A headlight comprising two reflector sections each having a concave face substantially in the form of a quarter sphere, the concave faces of the sections being opposed, one of said sections being positioned above and in advance of the second section, the upper section having its forward face downwardly disposed and its rear face rearwardly disposed, the forward face of the lower section being forwardly directed and the rear face of said lower section being upwardly directed, and a light source arranged within the lower section of the headlight adjacent to its rear face.

2. A headlight comprising two reflector sections each having a concave face substantially in the form of a quarter sphere, the concave faces of the sections being opposed, one of said sections being positioned above and in advance of the second section, the upper section having its forward face downwardly disposed and its rear face rearwardly disposed, the forward face of the lower section being forwardly directed and the rear face of said lower section being upwardly directed, a light source arranged within the lower section of the headlight adjacent to its rear face, the rear face of the upper section and the forward face of the lower section being in radial alinement and substantially vertically disposed.

3. A headlight comprising two reflector sections each having a concave face substantially in the form of a quarter sphere, the concave faces of the sections being opposed, one of said sections being positioned above and in advance of the second section, the upper section having its forward face downwardly disposed and its rear face rearwardly disposed, the forward face of the lower section being forwardly directed and the rear face of said lower section being upwardly directed, a light source arranged within the lower section of the headlight adjacent to its rear face, and a reflector carried by the lower section of the headlight extending upwardly and forwardly toward the upper section and overlying the light source.

4. A headlight comprising two reflector sections each having a concave face substantially in the form of a quarter sphere, the concave faces of the sections being opposed, one of said sections being positioned above and in advance of the second section, the upper section having its forward face downwardly disposed and its rear face rearwardly disposed, the forward face of the lower section being forwardly directed and the rear face of said lower section being upwardly directed, a light source arranged within the lower section of the headlight adjacent to its rear face, and a swinging hood supported by the headlight, said hood when in one position overlying the upper section and when in a second position partially closing the space between the rear face of the upper section and the rear face of the lower section.

In testimony whereof I hereunto affix my signature.

WILLIAM S. ELSEY.