E. I. DODDS.

ILLUMINATING DEVICE.

APPLICATION FILED AUG. 1, 1917.

1,312,312. Patented Aug. 5, 1919.

FIG. 1.

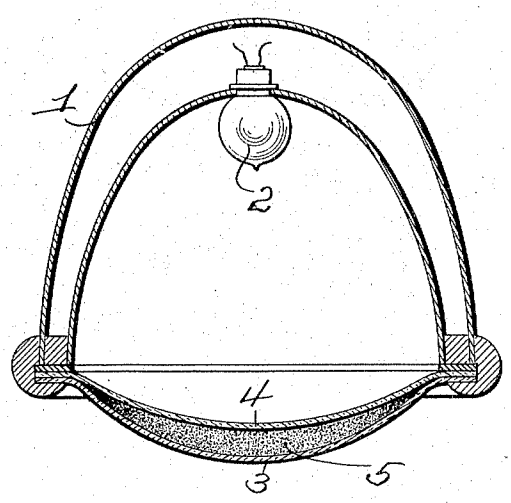
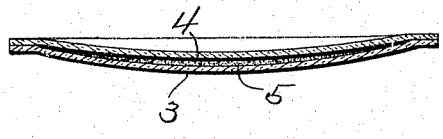


FIG. 2.



WITNESSES

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ILLUMINATING DEVICE.

1,312,312. Specification of Letters Patent. **Patented Aug. 5, 1919.**

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To all whom it may concern:

Be it known that I, ETHAN I. DODDS, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Illuminating Devices; 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 relates to improvements in illuminating devices and more particularly to such as are adapted for use for the lights of automobiles and other vehicles,—the object of the invention being to provide a lamp structure which may be rendered luminous by light from a primary source and remain luminous after the primary light shall have been extinguished and thus afford a mild light which may be maintained with great economy of electricity or other source by means of which the primary light may be provided.

With this and other objects in view, the invention consists in certain novel features as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view showing one embodiment of my invention, and Fig. 2 is a view of a slight modification.

1 represents a lamp fixture of the type usually employed for the lamps of automobiles. An incandescent electric lamp 2 may be suitably mounted in the lamp fixture 1 and connected in circuit with a suitable battery and switch device not shown.

The front of the lamp is closed by two concavo-convex plates or diaphragms 3—4 of light penetrating material suitably mounted on the lamp fixture in the position usually occupied by the lens of the headlight. In the construction shown in Fig. 1, these plates or diaphragms are made dish-shaped with their cross-sections presenting long arcs. These plates or diaphragms are so relatively shaped that when placed one within the other and with their peripheral edges contacting (and fused if desired) a space 5 will be provided between them. The plates or diaphragms 3 and 4 may be of clear glass and transparent or one or both of them may be made of colored or tinted glass and if desired the outer plate or diaphragm or even the inner one may be made of ground glass.

The inner surface of the outer plate (or the outer surface of the inner plate, if desired) is provided with a coating of phosphorescent material which will absorb and retain light for a considerable period and which will be activated to render it luminous by light rays from the electric lamp, which latter may be flashed at suitable intervals for this purpose. The material of which the coating is composed may consist, for example, of zinc or calcium sulfid and preferably a very small amount of radioactive material, such as a salt of radium.

In the form of the device shown in Fig. 2, the plates 3—4 are but slightly concavo-convex so that the structure will present a flattened appearance.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:

1. In an illuminating device, the combination with a lamp fixture and a source of light therein, of a curved diaphragm of light penetrating material closing the front of said lamp fixture and phosphorescent material behind said diaphragm and inclosed thereby.

2. In an illuminating device, the combination with a lamp fixture and a source of primary light therein, of concavo-convex diaphragms spaced apart and closing the front of the lamp fixture, said diaphragms being made of light-penetrating material, and phosphorescent material inclosed between said diaphragms.

3. In an illuminating device, the combination with a lamp fixture and a source of primary light therein, of two dished diaphragms of light-penetrating material carried by said fixture in front of said primary source of light, and phosphorescent material applied as a coating to the inner face of one of said diaphragms.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ETHAN I. DODDS.

Witnesses:
EDWIN SPENCER RYCE,
F. T. ALLISON.