

P. C. AVERY
 AUTOMOBILE LAMP.
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1,027,306.

Patented May 21, 1912.

Fig. 1.

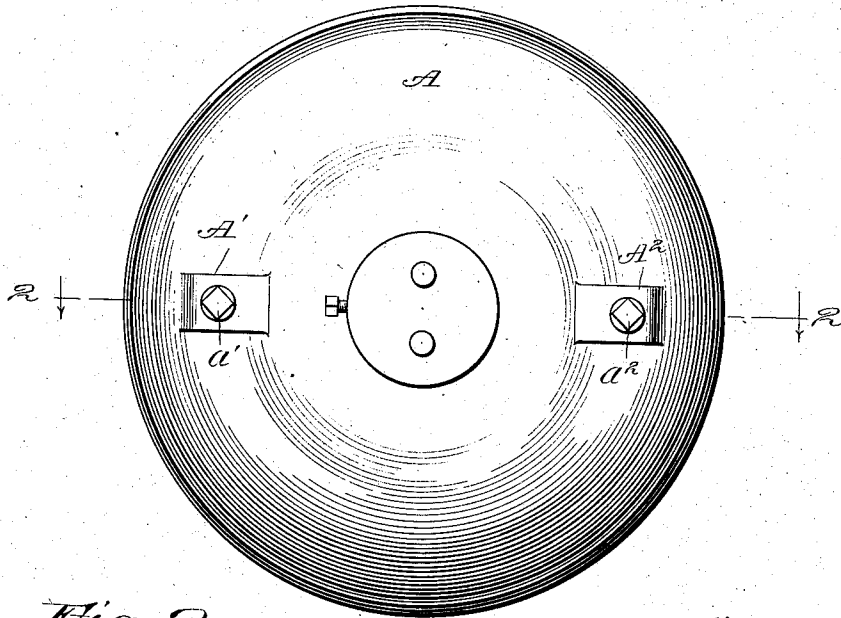


Fig. 2.

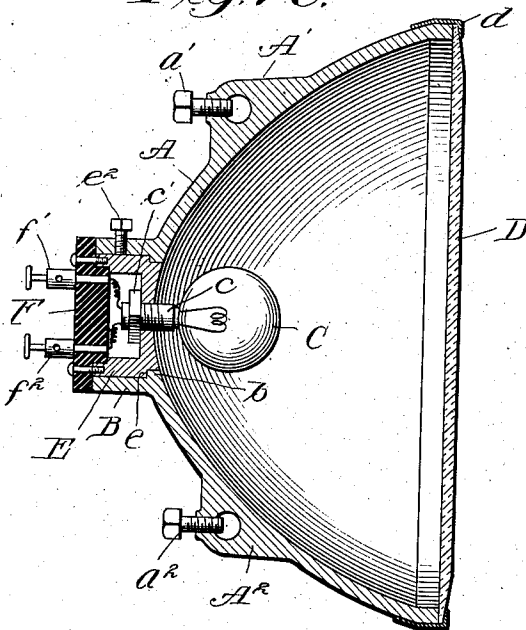
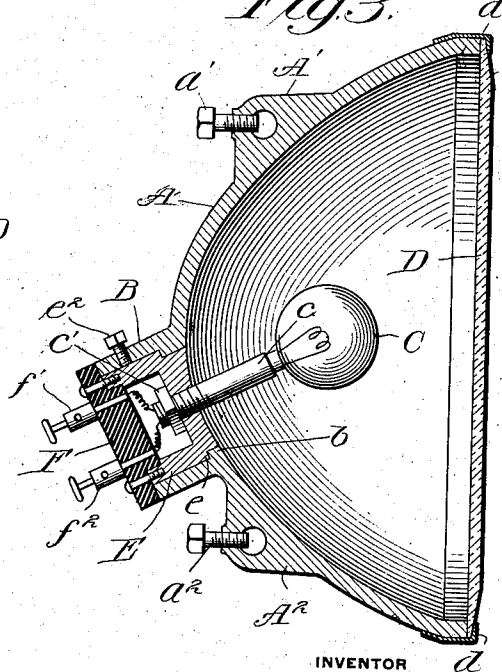


Fig. 3.



WITNESSES

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AUTOMOBILE-LAMP.

1,027,306.

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To all whom it may concern:

Be it known that I, PERCY C. AVERY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Automobile-Lamps, of which the following is a specification.

My invention relates in general to lamps, and more particularly to the type of lamps which are used on automobiles, and for similar purposes.

It is desirable that the casing of lamps should be air tight and securely closed so as to prevent the ingress of foreign matter, such as dust and moisture, which would tarnish or dull the reflecting surface. Heretofore it has been impossible to provide lamps, such as those used on automobiles, with dust proof casings owing to the necessity of access being had to the interior of the casing to light the lamp, as in cases of oil or gas lamps, or to renew the incandescent bulbs in the case of electric lamps. In order to permit access to lamps of this type it is usual to removably secure the glass front to the lamp, so that it may be readily opened to permit the lamp to be lighted, or a new incandescent bulb to be placed therein.

The primary object of my invention is to provide a lamp for automobiles or the like, in which the inclosing casing will be practically air tight, thereby preventing the ingress of foreign matter.

A further object of my invention is to provide an electrical lamp for automobiles and the like, in which the electric bulb may be inserted and removed at the back of the lamp, thereby avoiding the necessity of so securing the glass front to the casing that it may be opened.

The embodiment of my invention herein disclosed may be generally described as comprising a casing, having a reflecting interior surface, closed by a glass front tightly and immovably secured to the casing, the casing having an opening therethrough of a size to permit the insertion or removal of the incandescent bulb, and a breech block supporting the incandescent bulb removably fitting within and tightly closing the opening in the casing, the surface of the block forming a part of the inner reflecting surface of the lamp casing.

My invention will be more fully disclosed

hereinafter with reference to the accompanying drawing, in which the same is illustrated and described as embodied in a convenient and practical form, and in which—

Figure 1 is a rear elevational view; Fig. 2, a horizontal sectional view on the line 2—2 of Fig. 1; and Fig. 3, a view similar to Fig. 2, showing a modification.

Similar reference characters are used to designate similar parts in the several figures of the drawing.

Reference letter A indicates the lamp casing which is preferably made of cast metal, such, for instance, as aluminum. The interior of the casing is polished to form the reflecting surface of the lamp. Lugs A' and A² are cast integrally with the casing and are provided with vertical holes therethrough for receiving the usual bifurcated portions of a supporting bracket.

a' and a² indicate set screws for clamping the portions of the supporting bracket within the lugs A' and A². A circular flange B is cast integrally with the casing on the rear outer surface thereof.

D indicates the glass front of the casing which is secured to the outer circular edge of the casing in any suitable manner to form a practically air tight union, as by means of a flanged band d. The glass front is permanently secured to the casing, thereby avoiding the cracks necessarily present when the glass front on a lamp is removably secured to the casing, as is necessary in the usual form of automobile lamp.

An opening is formed through the casing A concentrically within the flange B. A breech block E removably fits within the circular flange B and closes the opening through the casing. The opening through the casing is of a size slightly greater than that of the incandescent bulb C so that the bulb may be inserted into and removed from the casing through the opening. In order that a tight joint may be formed between the breech block E and the opening through the casing, a circular shoulder b surrounds the opening and projects slightly within the circular flange B. A cooperating shoulder c is formed around the inner end of the breech block which engages the shoulder b when the breech block is in position to close the opening through the casing. Any suitable fastening device, such, for instance, as a clamp screw c², may be provided for removably securing the breech

block in position within the circular flange so as to close the opening through the casing.

The breech block E is preferably formed with an opening in the center, and is closed by a cap F, secured to the breech block in any suitable manner, as by means of screws. A plug *c* supporting the incandescent bulb C extends through the breech block and is preferably adjustably supported thereon as by means of exterior screw threads engaging an interiorly screw threaded opening through the breech block, thereby adjustably supporting the incandescent bulb so as to regulate its focus. A clamp nut *c'* serves to lock the block *c* in any adjusted position. The usual binding posts *f'* and *f''* are carried by the cap F to which the wires of the circuit leading to the incandescent bulb may be conveniently secured.

In Fig. 3 I have shown a modification of my invention in which the incandescent bulb is removably supported eccentrically of the casing. The means for supporting the incandescent bulb so that it may be inserted through and removed from the casing without removing the glass front of the casing are the same as above described in connection with Figs. 1 and 2.

From the foregoing description it will be observed that I have invented an improved lamp for automobiles, and for similar uses, in which the illuminating element may be inserted into and removed from the casing without necessitating the glass front of the casing being made removable, as is the case in the ordinary forms of such lamps, thereby permitting the casing to be at all times so tightly closed as to prevent the ingress of dust or other foreign matter. It will be further observed, in the specific form of my invention herein disclosed, that the breech block which supports the illuminating element and closes the opening through the casing, through which the illuminating element is inserted and removed, is provided with an inner surface which forms a portion of the reflecting inner surface of the casing.

What I claim is:

1. In a lamp, the combination with a single cast metal inclosing casing having an interior reflecting surface, of a glass front tightly secured to said casing, a lug on the outer surface of said casing adapted to engage a bracket for supporting the lamp, said casing having an opening therethrough of a size to permit the insertion and removal of a light-giving element, and a block removably fitting tightly within said opening and supporting the light-giving element, whereby said light-giving element may be inserted and removed without opening the glass front and without detaching the lamp from its supporting bracket.

2. In a lamp, the combination with a single inclosing metal casing having a pol-

ished interior reflecting surface, of means on the outer surface of said casing for supporting the lamp, said casing having an opening therethrough of a size to permit the insertion and removal of a light giving element, and a block for supporting the light giving element fitting within and closing said opening, the inner surface of said block forming part of the reflecting surface of the lamp.

3. In a lamp, the combination with a cast metal inclosing casing having an interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of the light-giving element, of a circular flange on the outer surface of said casing surrounding the opening therethrough, an annular shoulder formed within said flange by reducing the bore thereof, a block removably fitting within said circular flange and closing the opening through the casing, the inner surface of said block forming a part of the reflecting surface of the lamp, an annular shoulder formed on said block engaging the shoulder within said flange for locating the reflecting surface thereon flush with the reflecting surface of the casing, and means for supporting the light-giving element upon said block.

4. In a lamp, the combination with an inclosing casing having an interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of the light-giving element, said casing comprising a glass front tightly and immovably secured thereto, of a block removably fitting within said opening and tightly closing the same, the inner surface of said block forming part of the reflecting surface of the lamp, and means for supporting the light-giving element on said block.

5. In an electric lamp for automobiles and the like, the combination with a cast metal inclosing casing having supporting lugs cast thereon and also having an opening therethrough of a size to permit the insertion and removal of the incandescent bulb, of a circular flange cast integrally on the outer surface of said casing concentrically around the opening therethrough, a block removably fitting within said flange and closing the opening through the casing, and means for supporting the incandescent bulb upon said block.

6. In an electric lamp for automobiles and the like, the combination with a cast aluminum inclosing casing having a polished interior reflecting surface, and also having an opening therethrough of a size to permit the insertion or removal of the incandescent bulb, of a circular flange cast integrally with the casing on the outer surface thereof concentrically around the opening through the casing, a block removably

fitting within said flange and closing the opening through the casing, the inner surface of said block being polished to form part of the reflecting surface of the lamp, and means for adjustably supporting the incandescent bulb upon said block.

7. In a lamp, the combination with a cast metal inclosing casing having an interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of a light-giving element, of a block removably fitting within and closing the opening through said casing, the inner surface of said block forming a part of the reflecting surface of the lamp, an annular shoulder formed on said block engaging a portion of the casing around said opening for locating the reflecting surface thereon flush with the reflecting surface of the casing, and means for supporting a light-giving element upon said block.

8. In an electric lamp for automobiles and the like, the combination with a cast metal inclosing casing having a supporting lug cast thereon and also having an opening therethrough of a size to permit the insertion and removal of an incandescent bulb, of a shoulder formed integrally with said casing around the opening therethrough, a block removably fitting within and closing the opening through the casing and having a shoulder thereon engaging said shoulder on the casing, and means for supporting the incandescent bulb upon said block.

9. In an electric lamp for automobiles and the like, the combination with a cast metal casing having an opening therethrough of a size to permit the insertion and removal of an incandescent bulb, of a hollow block removably fitting within and closing

ing said opening through the casing, said block comprising a removable cap closing its outer end, a socket for the incandescent bulb projecting through the inner wall of said block, flexible electric conductors inclosed within said block and connecting said socket with terminals projecting through the block to the exterior thereof, and an incandescent electric bulb supported by said socket.

10. In an electric lamp for automobiles and the like, the combination with a cast metal inclosing casing having a polished interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of an incandescent bulb, of a hollow block removably fitting within and closing said opening through the casing and comprising a removable cap closing its outer end, the inner surface of said block being polished to form part of the reflecting surface of the lamp, said block and casing being provided with engaging shoulders for locating the reflecting surface on the block flush with the reflecting interior surface of the casing, a socket projecting through the inner wall of said block, means for adjusting said socket relatively to the inner surface of said block, flexible electric conductors inclosed within said block and connecting said socket with terminals projecting through the block to the exterior thereof, and an incandescent electric bulb detachably engaging said socket.

In testimony whereof, I have subscribed my name.

PERCY C. AVERY.

Witnesses:

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HENRY A. PARKS.