Dec. 6, 1932. J. H. SHEELY 1,890,167

LIGHT

Filed March 26, 1932

FIG.1.

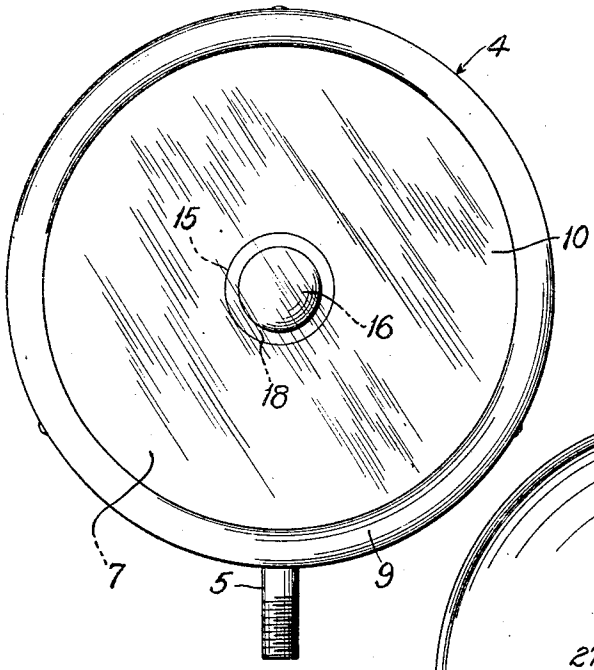


FIG.2.

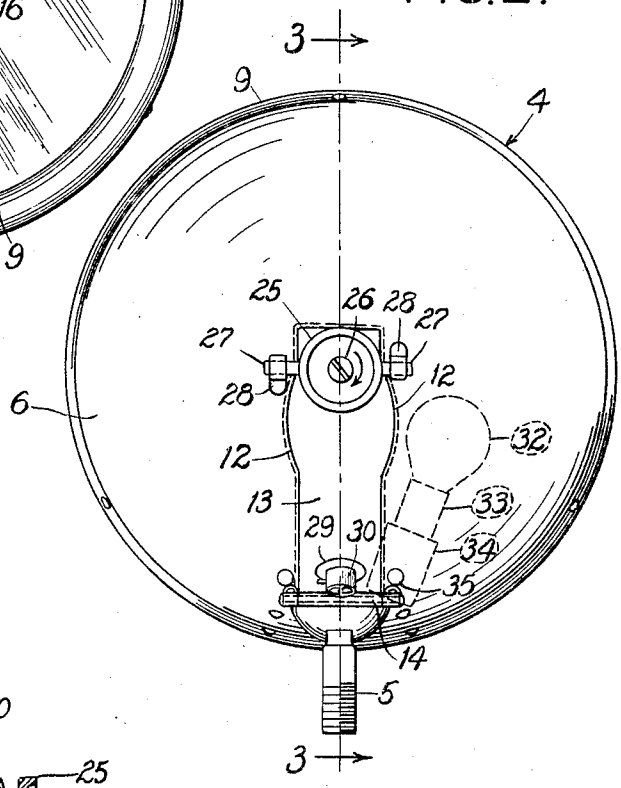
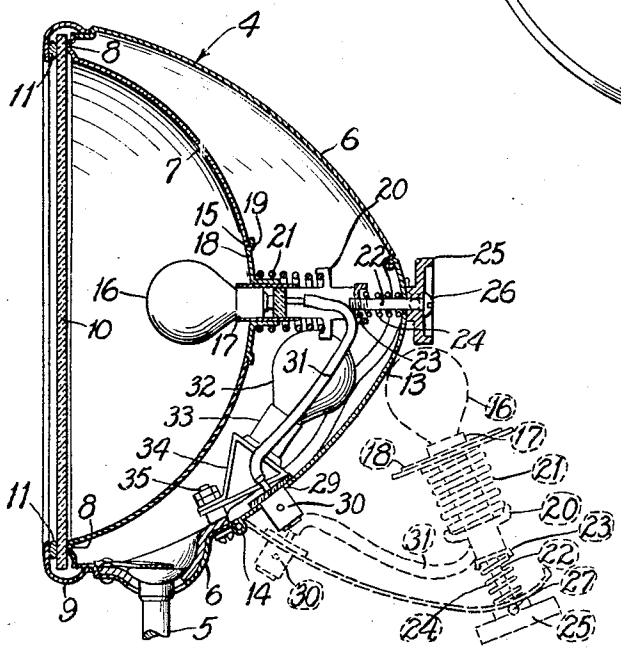


FIG.3.



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UNITED STATES PATENT OFFICE

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LIGHT

Application filed March 26, 1932. Serial No. 601,309.

The object of my invention is to make a light, particularly of the type that is used on automobiles. My device is an improvement on or an attachment to such a light. The attachment and improvement may be made to any type of light. In the illustration, it is shown as applied to an automobile head light. It could likewise be used on a tail light or on any other type of light. In the illustration, an electric bulb is used for illumination. Any other source of illumination could be used. More specific objects of my invention are to so construct a lamp or light that the illuminating bulb is easily readily accessible, so that it may be installed and removed without removing the lens or the front portion of the lamp. In the present head light, for instance, in order to replace a burnt out bulb, it is necessary to remove an annular ring and the lens, which the ring holds. In this operation, the lens is very often dropped and broken. The screws or other attaching means of the annular ring to the shell of the lamp ordinarily become inoperative, through exposure to the weather. At best, the removal of the lens is a tedious and unusually expensive process. By the use of my device, the bulb may be inserted or removed without touching the lens or the annular ring holding the lens. The light is removed from the rear of the lamp. Furthermore, my device provides storage means for an extra bulb.

The device may be made of few and simple parts that lend themselves readily to multiple production and may be made at low cost.

With these and other objects in view, my invention has relation to certain novel features of construction and arrangement of parts as will be hereinafter more fully described, pointed out in the claim and illustrated in the drawing, in which

Fig. 1 is a front elevation of an automobile head light.

Fig. 2 is a rear or back elevation of an automobile head light, showing my improvement thereon.

Fig. 3 is a longitudinal section elevation taken on the line 3—3 of Fig. 2. The bulb is shown in position by the solid lines in Fig. 3. The bulb is shown in the position for removal by dashed lines in Fig. 3.

Numeral 4 designates the lamp generally, which is secured to the automobile or stand by means of the threaded post 5, which is secured to the shell 6 of the lamp.

Numeral 7 designates the reflector, which is secured to the shell 6 in conventional manner at 8 by means of the annulus 9.

Numeral 10 designates the lens. Numeral 11 designates a fabric ring or washer, which is secured between the annulus 9 and the lens 10. Thus far a conventional lamp is described. In the back of the shell 6 is cut the slot 12. Numeral 13 designates a strip of metal of the same size and confirmation as the slot 12. The strip 13 is hingedly secured to the shell 6 at the bottom of the slot 12 by means of the hinge 14. Numeral 15 designates a hole cut centrally in the reflector 7 and substantially larger in diameter than the diameter of the bulb 16. The bulb 16 is secured in the socket 17. Numeral 18 designates a circular plate secured to the socket 17 and having the countersunk periphery 19. The circular plate 18 is of the same size and shape as the hole 15 with the countersunk periphery 19 slightly larger. The countersunk periphery 19 is used to secure the circular plate 18 against the reflector 7 around the hole 15. The circular plate 18 is made of the same material as the reflector 7 and polished in the same way, so that when it is in the position shown in Fig. 3 it forms a portion of the reflector. When the bulb 16 is in the position shown in solid lines in Fig. 3 and the circular plate 18 is in the position shown in said figure, the reflector 7 is complete, with the exception of a circular line marking the jointure between the reflector 7 and the circular plate 18. On the socket 17 is formed the flange 20. Numeral 21 designates a coiled spring surrounding a portion of the socket 17 and having one end in contact with the arcuated plate 18 and the other end in contact with the flange 20. Numeral 22 designates a bolt in threaded engagement in the outer end of the socket 17. Numeral 23 designates a flange secured to the outer end of the socket 17. Numeral 24 designates a spring positioned around the bolt

22 and having one end in contact with the flange 23 and the other end in contact with the strip 13.

Numeral 25 designates a button secured to the bolt 22 by means of the head 26 of the bolt 22. The bolt 22 passes through the shell 6 and the button 25 is in contact with the outer surface of the strip 13. The spring 24 normally maintains the button 25 in its predetermined normal position.

Numerals 27 designate wings formed on the button 25 and numerals 28 designate clasps formed on the outside of the shell 6 in the position shown in Fig. 2. The purpose of the wings 27 and the clasps 28 is to present a securing means for the strip 13 to the shell 6. The arrow in Fig. 2 shows the direction of rotation of the button 25 and hence the wings 27. When the wings 27 are in the position shown in Fig. 2, the strip 13 is locked in the position shown in solid line in Fig. 3. In this position the wings 27 extend under the clasps 28. The spring 24 holds the wings 27 normally in this position. In order to secure a weather proof jointure between the strip 13 and the shell 6 on all of its sides a U crimp is formed on the shell 6 around the slot 12. The sides of the strip 13 are bent at right angles to the strip 13, so that when the strip 13 is in its closed position, the jointure between the strip 13 and the shell 6 will be as shown in Fig. 3. In the strip 13 is formed a hole 29, in which is positioned an electric socket 30. Numerals 31 designate wires connecting electrically the electric socket 30 with the socket 17 and hence the bulb 16.

It will be seen that by the structure thus far described, that the bulb 16 together with its socket 17 and the strip 13 may be oscillated outwardly downwardly by means of the hinge 14 to the position shown by dash lines in Fig. 3. This enables the bulb to be easily manually inserted or removed. Numeral 32 designates a stored bulb, which is secured in the socket 33, which socket is secured to the triangular casting 34. 35 designates a bolt passing through the shell 6 and the ends of the triangular casting 34, thereby securing the triangular casting 34 pivotally to the shell 6. The stored bulb 32 is shown in the stored position in Fig. 2, that is in the position rotated to the side of the slot 12. In order to remove the stored bulb 32 from its socket, the socket is rotated through the small arc of a circle in an anti-clockwise direction in Fig. 2, until the stored bulb 32 is immediately in front of the slot 12. The bulb may then be easily removed through the slot 12. The stored bulb 32 must be moved away from the slot 12 in order to permit the bulb 16 to take the position shown in solid line in Fig. 3.

What I claim is:

In combination with a lamp, a shell, a reflector, said reflector operatively positioned in said shell, a glass closure operatively positioned in said shell, said shell having a slot cut therein, a strip hingedly secured to said shell over said slot, an electric socket secured near its free end to said strip, an electric bulb selectively positioned in said socket, means for securing said strip in position, a portion of said reflector secured to said socket, electric wires secured to said socket and passing through said shell, a bracket secured in said shell in an oscillatory manner, an electric socket secured to said bracket, an electric bulb positioned in said last mentioned socket, said bracket being capable of rotation through the small arc of a circle, until said last mentioned bulb is immediately in front of the slot of said shell.

In testimony whereof I affix my signature.

JOSEPH H. SHEELY.