

F. P. AHMAN.
HEADLIGHT.
APPLICATION FILED MAY 28, 1919.

1,336,407.

Patented Apr. 13, 1920.

Fig. 1

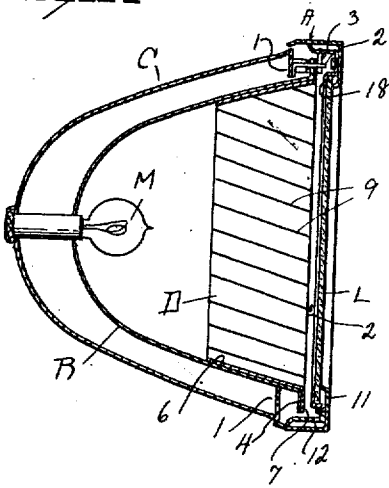


Fig. 2

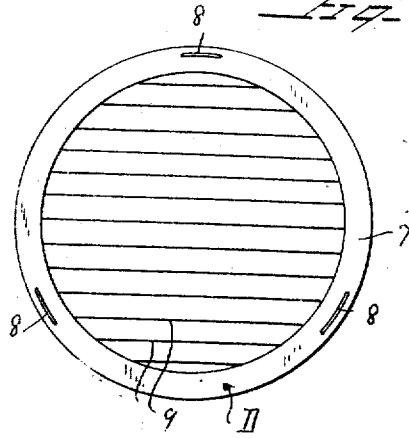


Fig. 3

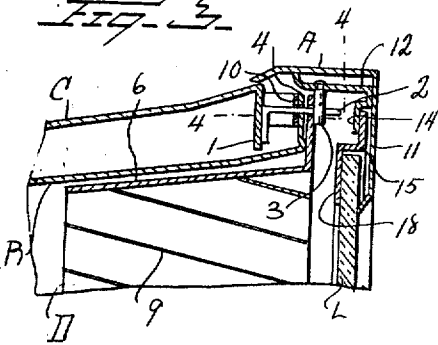


Fig. 4

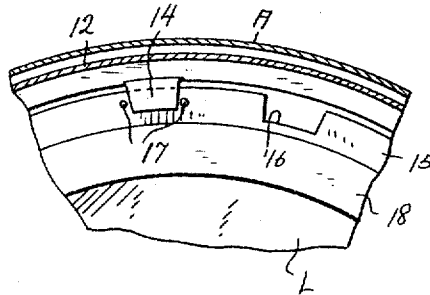


Fig. 5

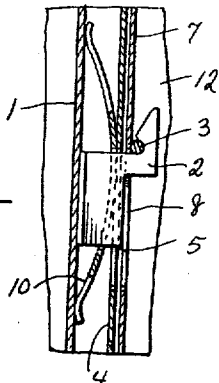
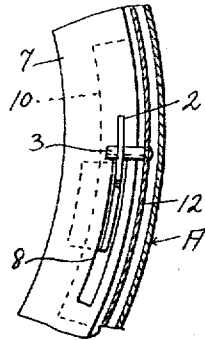


Fig. 6



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HEADLIGHT.

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To all whom it may concern:

Be it known that I, FRANK P. AHMAN, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Headlights, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain improvements in headlights and has relation more particularly to a device of this general character especially designed and adapted for use in connection with an automobile, and it is an object of the invention to provide a novel and improved device of this general character including a deflector which is so constructed and arranged whereby is prevented direct view of any brilliantly illuminated portion of the headlight by an observer having the line of vision higher than the level at the top of the headlight when said headlight is in a position to direct the rays substantially horizontally.

25 It is also an object of the invention to provide a headlight including a casing, a reflector, a deflector, and a lens, together with novel and improved means whereby the same are maintained in installed or assembled relation.

30 Another object of the invention is to provide a device of this general character including novel and improved means whereby the lens may be held in working position and readily applied or removed.

35 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.

45 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:

50 Figure 1 is a vertical sectional view taken longitudinally through a headlight con-

structed in accordance with an embodiment of my invention.

Fig. 2 is a view in front elevation of the deflector as herein comprised.

Fig. 3 is an enlarged fragmentary sectional view taken longitudinally of the headlight as herein embodied and at the forward end thereof.

Fig. 4 is a sectional view taken substantially on the line 4-4 of Fig. 3.

Fig. 5 is a view in front elevation of the structure illustrated in Fig. 4, and

Fig. 6 is a fragmentary view, partly in section and partly in elevation, illustrating a portion of the means for maintaining the lens in applied position.

As disclosed in the accompanying drawings, C denotes the casing of my improved headlight which is of a conventional style and which has its open or light emitting end defined by an inwardly directed continuous flange 1. Secured to the flange 1 is a plurality of equidistantly spaced outstanding hook members 2, preferably three in number, and which hooks are adapted to coact with inwardly directed fingers 3 or the like carried by the supporting annulus or ring A for the lens L.

R denotes a reflector insertible within the casing C through the open or light emitting end thereof and the forward end portion of said reflector is defined by the outstanding continuous flange 4 which, when the reflector R is in applied position, overlies the flange 1 of the casing C. The flange 4 is provided with the circumferentially directed slots 5 through which the hooks 2 are directed and whereby said hooks serve as supports for the reflector R. The inner end portion of the reflector R carries an illuminating member M of any desired type but preferably electrical.

D denotes a deflector in its entirety and which is arranged within the forward end portion of the reflector R inwardly of the lens L when the headlight is installed or assembled. The deflector D comprises a frame 6 partially extending within the forward or open end of the reflector R and the forward marginal portion thereof is defined by a continuous outstanding flange 7. The flange 7 is also provided with the cir-

cumferentially directed slots 8 through which the hook members 2 are disposed, whereby said hook members 2 also serve to maintain the deflector in installed or assembled position.

Intersecting the frame 6 and suitably secured thereto are the substantially horizontally disposed slats or flat strips 9 of a width substantially equal to the length of the frame 6 and preferably equidistantly spaced in a vertical direction. The slats or flat strips 9 are inclined downwardly and forwardly in cross section and the degree of inclination is such that the forward or lower marginal portion of each of the slats or strips 9 is below the upper or inner marginal portion of the slat or strip 9 immediately therebelow. By this arrangement of the slats or strips 9 is prevented direct view of any brilliantly illuminated portion of the headlight by an observer having the line of vision higher than the level at the top of the headlight but permits an effective illumination of the roadway.

Each of the hook members 2 is also directed through the central portion of an out-bowed spring 10 which, when the headlight is installed or assembled, is interposed between the flanges 1 and 4 and serves to constantly urge the reflector R and the deflector D outwardly, and whereby the flanges 4 and 7 are maintained in contact and the flange 7 in contact with the fingers 3, whereby the reflector R and deflector D are maintained in desired relation and against undue vibration.

The annulus or ring A has its outer marginal portion defined by the inwardly directed flange 11 and secured to the inner faces of the annulus or ring A and the flange 11 is a stiffening ring 12. The fingers 3 hereinbefore referred to are directly carried by this ring 12.

The ring 12 is substantially L-shaped in cross section and the free marginal portion overlying the flange 11 is provided with the inwardly offset and equidistantly spaced wings 14 beneath which is adapted to be engaged the outer marginal portion of a lens engaging ring 15. The outer marginal portion of the ring 15 is provided with the notches 16 to permit the proper engagement of the ring 15 beneath the wings 14 upon a partial rotation of said ring 15. When the ring 15 has been partially rotated to effect this engagement, each of the wings 14 engages between a pair of outstanding protuberances 17, preferably pressed out of the ring 15, and whereby the ring 15 is held against rotation and thereby maintained in working position.

The ring 15 has its inner margin arranged inwardly of the inner margin of the flange 11 so that the marginal portion of the lens L may be effectively held between the

flange 11 and the ring 15. In order that the ring 15 may properly engage the marginal portion of the lens L, the inner marginal portion of said ring 15 is offset, as indicated at 18.

The slots 5 and 8 are of a length to permit the ready insertion or withdrawal of the hook members 2 therethrough and when the reflector R and the deflector D are rotated in one direction, the outer end portion of the hook members 2 coact with the portions of the flanges 4 and 7 immediately adjacent the slots 5 and 8.

To remove the deflector and the reflector R, the same are rotated in the opposite direction to the extent afforded by the slots 5 and 8 and when in this latter position said deflector D and reflector R may be readily removed, it being understood of course that the annulus or ring A has been previously removed. It will also be understood that when the deflector D and the reflector R have been removed, the springs 10 are retained by the hook members 2.

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. The combination with a headlight comprising a casing having an open end, outstanding hook members carried by said end, a reflector insertible within the casing, a deflector insertible within the reflector, said deflector being provided with openings through which the hook members are directed, of a lens supporting member having an inner reinforcing member, a plurality of fingers projecting inwardly from one portion of said reinforcing member, the other portion of said reinforcing member including spaced wings, and a lens securing member having its outer marginal edge disposed between said wings and the lens supporting member.

2. In combination with a headlight comprising a casing having an open end, a reflector within said casing, a deflector within the reflector, hook members carried by the casing for supporting the reflector and deflector, a lens supporting member comprising an annular member having one side portion thereof disposed substantially in a plane parallel to the end portion of the cas-

ing, the other side portion of the lens supporting member extending in angular relation to the first mentioned side portion of said lens supporting member, a reinforcing member disposed inwardly of said lens supporting member and having its side portions positioned in parallel relation to each of the side portions of said lens supporting member, one of the side portions of the reinforcing member having a plurality of fingers with which the hook members are engaged, the other side portion of the reinforcing

member including spaced wings, and a lens securing member having its inner marginal edge offset with relation to the outer marginal edge thereof, said outer marginal edge being disposed between said spaced wings and the lens supporting member. 15

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 20

FRANK P. AHMAN.

Witnesses:

RUFUS R. SALTER,
OLLIE E. KUHN.