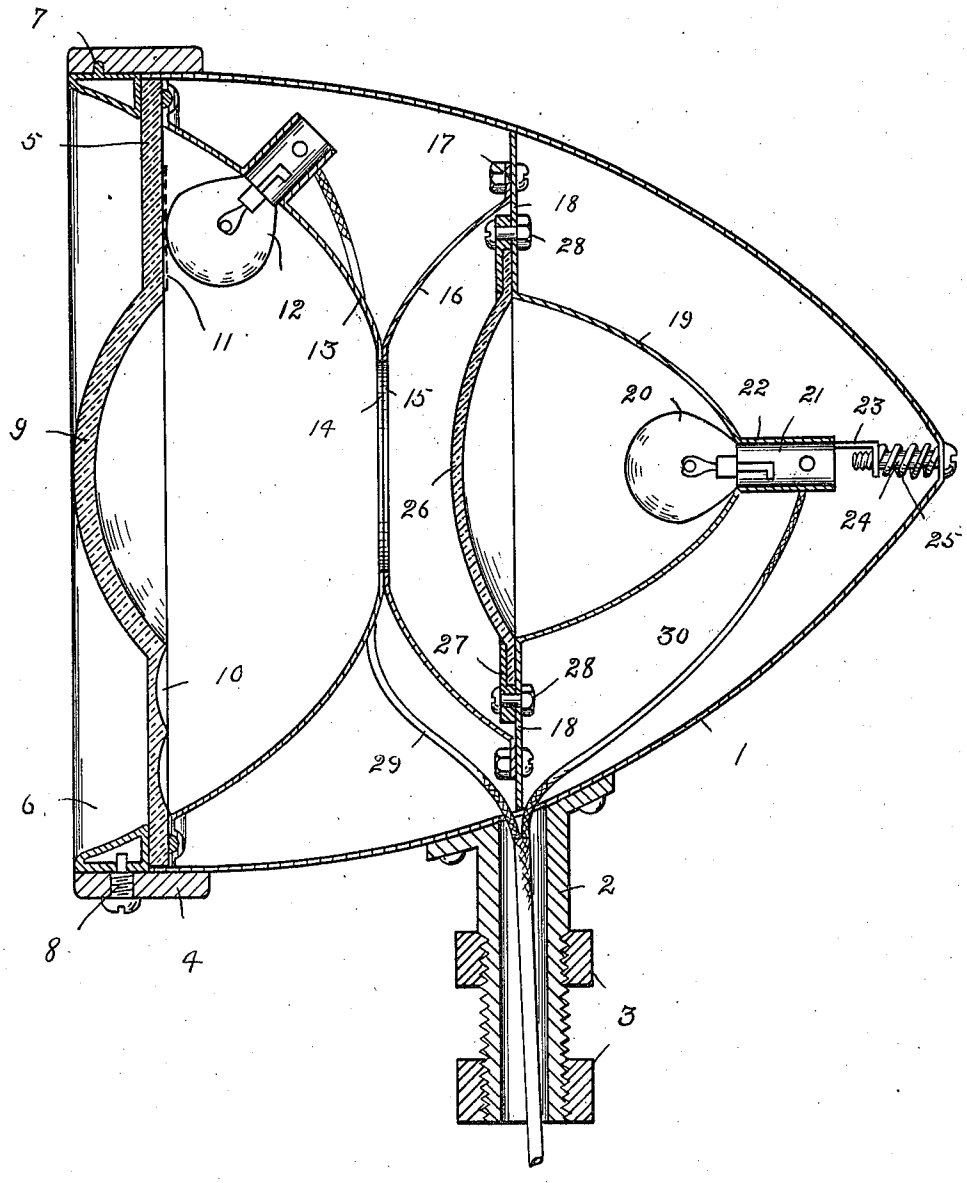
Feb. 5, 1929. 1,700,760

W. R. BREWER

HEADLIGHT

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UNITED STATES PATENT OFFICE.

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HEADLIGHT.

Application filed November 19, 1927. Serial No. 234,426.

This invention relates to headlights particularly adapted for use on automobiles, though obviously may be useful when used upon vessels, other moving bodies, or as a stationary light when the novel functioning of same is desired.

The principal object sought in my present invention is that of a glareless headlight and one in which the major portion of illuminosity is directed downwardly therefrom when desired.

Other objects and advantages of the invention will appear in the further description thereof.

The drawing accompanying this application and forming part thereof is a central vertical section through one of my improved headlights, which in its preferred form includes the projectile shaped casing 1 mounted upon any suitable standard indicated at 2 which in this instance is hollow and externally screw threaded for engagement with the suitable support as indicated at 3. Upon the outer circumferential edge of the casing 1 is permanently mounted a reinforcing ring 4 for holding engagement with the combined reflector insert which will be described later. The major lens 5 abuts against the outer face of the reflector unit and is held in position by the hollow annular stop 6 which snugly fits within the ring 4, one circumferential edge of which is provided with one or more tits or lugs 7 which register within suitable holes in the surface of the ring 4 when the stop is thus inserted prior to the lower portion being forced inwardly where it is securely held by the screw pin 8.

The form of lens here shown is one having an outwardly projecting concavoconvex, circular central portion indicated at 9, about which any form of light diffusing areas may be made such as indicated at 10, except that directly above the central circular portion is a relatively smaller circular portion indicated at 11 which is well frosted upon the inner face thereof and occurring directly in front of the lamp 12 which is mounted within the major reflector 13 of the insert unit. This reflector is provided with an axial opening indicated at 14 which registers with a similar opening 15 in a like but smaller inverted reflector 16, the outer peripheral extremity of which is flanged as at 17 and bolted to the flanged portion 18 of the more conically shaped reflector 19 which surrounds the axially disposed lamp 20. This lamp is mounted upon a socket 21 which is slidably insertable within the neck 22 of the reflector 19 and has fixed thereto the L-shaped lug 23 which is screw threadedly attached to the bolt 24 around which is mounted the expansive helical spring 25 so that by external adjustment of the bolt 24 the lamp socket 21 may be moved back and forth for properly focusing the light.

The outer diameter of the flange 18 is such as to snugly fit against the inner wall of the casing 1 when the insert unit is in place within the casing so that it positively registers when installed and on the face of this flange 18, adjacent its innermost peripheral edge, is mounted a second or minor concavoconvex lens 26, the annular stop for retaining same being indicated at 27 and bolted to the flange 18 as at 28. This combination of reflectors 19 and 16, and the lens 26, results in the compounding or concentrating of the light from the lamp 20 through the axial opening 14—15 in the backs of the reflectors 13 and 16 so that a concentrated central axial shaft of light may be directed from the headlight, it, of course, being somewhat diffused by the lens 5. This lamp 20 is preferably of from twenty-one to thirty-two candle-power, which also applies to the lamp 12; however this latter I prefer to have of the "high-low" type, say from four to twenty-one or thirty-two candle-power, so that when the headlight is used on dark roads or streets, both lamps may be operated simultaneously, giving the strongest possible luminosity, while, when driving on a better lighted thoroughfare, or when otherwise desired, the axial lamp 20 may be turned off and only the lamp 12 used and that either high or low as desired, and in which event the frosted portion 11 of the lens 5 thoroughly prevents against objectionable glare.

Suitable wiring for the various lamps is illustrated at 29 and 30, they leading through the hollow standard 2 to any convenient source of supply.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

A headlight of the class described comprising an acorn shaped casing, a lamp within the apex of the casing, a reflector about said lamp terminating in a disc the full size of the interior of the casing, a lens carried upon the disc, an inverted reflector attached to the disc externally of the lens and having a comparatively large central opening therethrough, an

oppositely disposed larger reflector attached back to back with the inverted reflector, a radially disposed lamp depending from the uppermost portion of the larger reflector, said larger reflector also terminating in a disc like rim filling the casing at its peripheral edge, a lens installed against the circumferential disc-like rim of the larger reflector, said second lens having an outwardly projecting concavo convex central portion above which and in front of the last mentioned lamp it is provided with light diffusing means, and means for holding the parts in assembled relation.

In testimony whereof I affix my signature.

WILLIAM R. BREWER.