June 16, 1931. S. W. HYATT 1,810,177

INTERIOR TELESCOPING RIM HEAD LAMP

Filed Jan. 24, 1930

FIG. 1

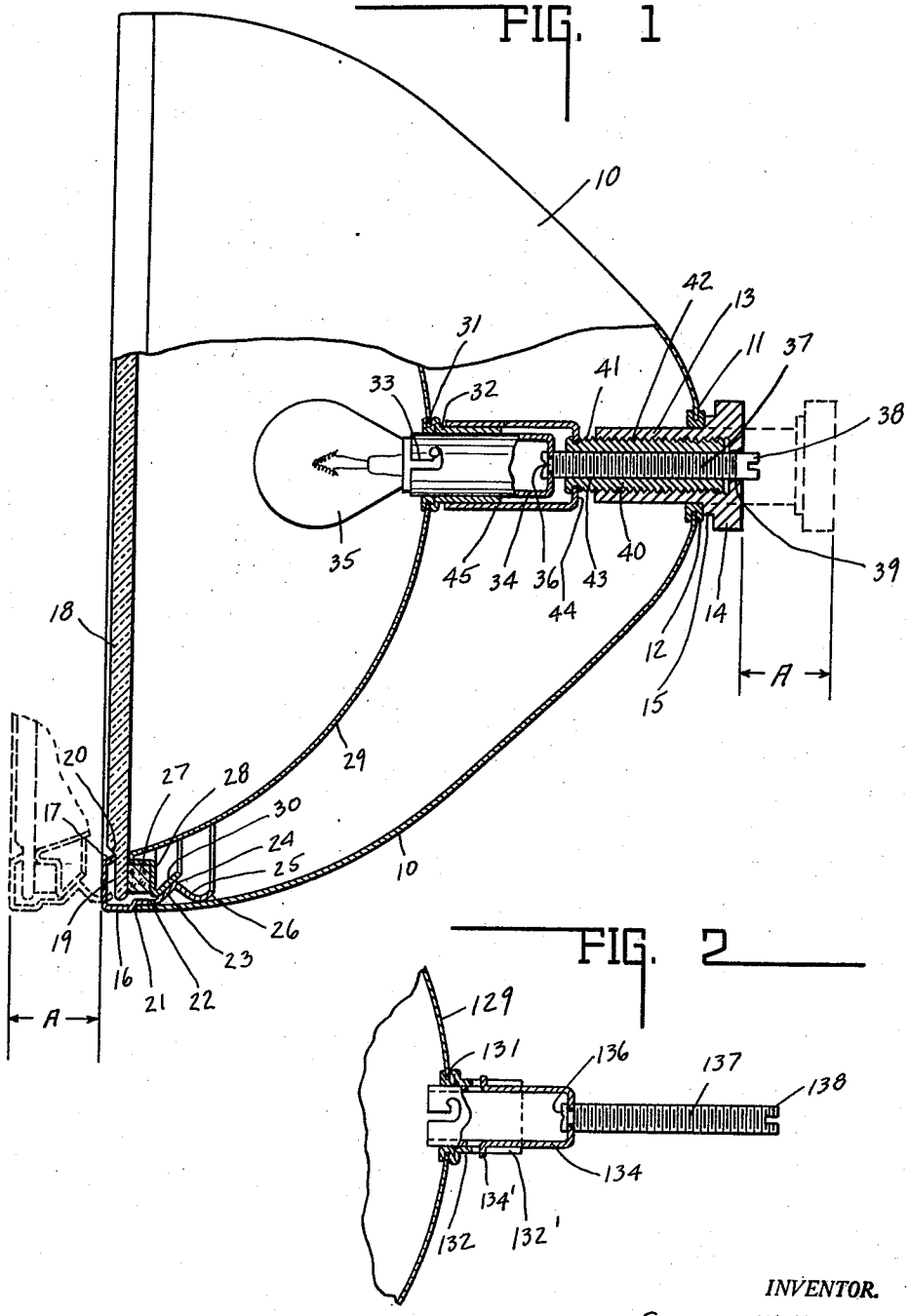


FIG. 2

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INTERIOR TELESCOPING RIM HEAD LAMP

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This invention relates to the assembly arrangement of the parts of a headlamp construction.

The chief object of the invention is to provide a construction that is readily separable for replacement purposes and the like, and which is substantially free from clips and a plurality of exteriorly projecting portions.

One feature of the invention consists in the simultaneous sealing of the reflector and closure in the anchorage of all of the parts of a headlamp construction in associated relation.

Another feature of the invention consists in the provision of a single externally exposed member that is initially retracted from the casing and then projected into the casing to free the reflector and lens closure and door rim from the casing.

The full nature of the invention will be understood from the accompanying drawings and the following description and claim.

In the drawings the Fig. 1 is an elevational view of a headlamp embodying the invention, parts being broken away to show the same and other parts in section, the full lines illustrating the assembled relation and the dotted lines successively disassociated positions for separating the parts. Fig. 2 is a central sectional view of a modified form of reflector supported bulb socket and adjusting connection.

In Fig. 1 of the drawings, 10 indicates a lamp casing of any desired conformation and including an approximate central aperture 11 in which is mounted a bushing 12 that slidably receives a sleeve 13 having a tool engageable casing exposed portion 14 and a flange portion 15.

The door rim 16 includes an inwardly directed flange 17 that bears upon the closure 18 at the recessed peripheral portion 19 thereof adjacent the bevelled portion 20. The rim 16 includes an inturned flange 21 that bears against the open end of the casing 10, and the in-turned portion 21 includes a peripheral rearward extension 22 telescopically receivable by said casing and extending inwardly and rearwardly from the same is the inclined portion 23 which at 24 extends rearwardly and outwardly as at 25 and terminates in the curved portion 26.

The closure 18 bears upon an annular sealing gasket 27 receivable by the annular and angular shaped seat portion 28 formed upon the outer edge of the reflector 29. The seat portion 28 terminates in an inwardly and rearwardly directed extension 30, the same having a camming action relative to the inclined annular portion 23 of the door rim, said portions having wedge action.

The reflector 29 at 31 is or approximately centrally apertured and supported thereby is the sleeve 32. The bayonet slot connection 33 of the bulb support 34, slidably supported by sleeve 32, supports the light bulb 35.

The current supplying wire or wires (not shown) or equivalent means, may prevent rotation between support 34 and sleeve 32 or sleeve 45, these sleeves having a press fit if desired.

Current to the light bulb is supplied through any convenient construction. The bulb support 34 rotatably supports the reduced end 36 of a screw bolt 37 having a tool engageable casing exposed end 38, the same extending through an opening 39 formed in the sleeve 13 and in the casing exposed portion 14. A sleeve 40 is exteriorly threaded as at 41 for threaded reception by the interiorly threaded portion 42 of the sleeve 13 and the sleeve 41 is interiorly threaded as at 43 for threaded engagement with the threaded exterior of the focusing bolt 37. The threaded sleeve 40 is suitably secured at its inner end upon the rear end 44 of a sleeve portion 45.

The operation of the device is as follows: The sleeve 13 is turned through the exposed portion 14 and backed out through the bushing 12. The sleeve is then slid forwardly and axially toward the closure which causes the multiple threaded sleeve 41 with sleeve 45 and sleeve 31 to move forward therewith and this causes the reflector 29 to move forward with the gasket, closure and rim. This forward movement as shown by the dotted lines, is sufficient to clear the rim from the casing,

whereupon the rim may be detached from the reflector in order that access may be had to the interior of the reflector for lamp bulb replacement.

Upon replacement of the bulb, the parts are assembled in reversed relation and the sleeve 13 is threaded home which, through the reflector, peripherally locks the door rim to the casing and at the same time, by reason of the cam action between the two adjacent wedge portions 23 and 30 of the rim and reflector, the closure is sealed to the reflector as well. The sole exposed and adjustable member, therefore, necessary to secure sealing and connection between the several parts consists in the single threaded telescopically mounted sleeve 13.

While the invention has been described as applicable to a solid rim door, it can be readily applied just as well to a split rim, that is, one that is entirely split from the offset shouldered portion to the rearward end 26 or one that is completely split from end to end.

In Fig. 2 of the drawings, a modified form of a portion of the invention is illustrated and in this form similar parts are indicated by numerals of the one hundred series. This form of the invention shows the sleeve 132 provided with longitudinally extending slots 132′ which receive outwardly directed tongues 134′ carried by the bulb socket and connecting member 134. This type of connection prevents bulb rotation in the adjustment.

The invention claimed is:

In a head lamp construction, the combination of a casing having an apertured rear end, a reflector nested therein, a lens closure for closing the reflector, a rim engaging the closure and including a casing receivable portion, co-operating wedge portions upon the adjacent ends of the reflector and rim, a threaded sleeve slidable longitudinally in the casing aperture and having a registering aperture, a threaded member carried by the reflector and having threaded engagement with the sleeve for reciprocating the reflector relative to the casing for locking the casing, rim and reflector together and for unlocking the same, said threaded member including an internally threaded portion, a bulb socket slidably supported by said reflector, and a focusing member rotatably supported at one end by said socket and having its other end exposed through the sleeve aperture, said focusing member including an intermediate threaded portion having threaded engagement with said reflector carried threaded member.

In witness whereof, I have hereunto affixed my signature.

SAMUEL W. HYATT.