June 9, 1942. A. E. LARSEN 2,285,591

HEADLIGHT ADAPTER

Filed June 19, 1940

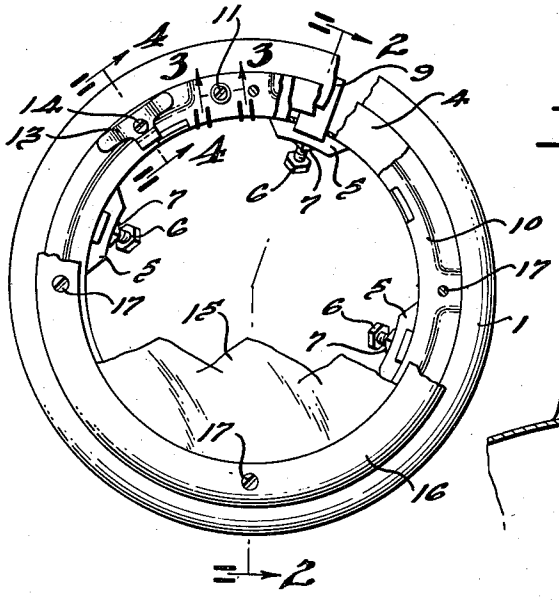


Fig. 1.

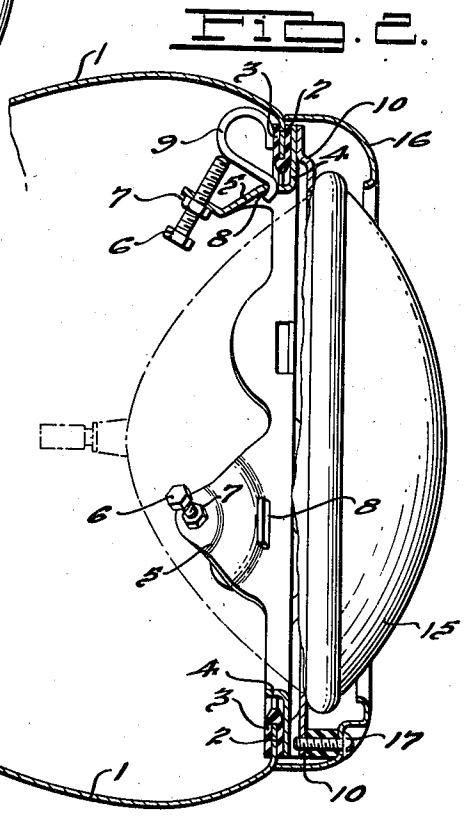


Fig. 2.

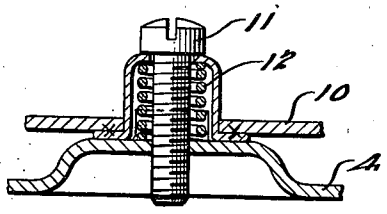


Fig. 3.

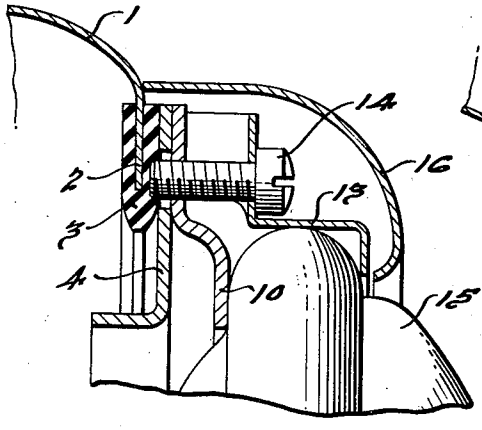


Fig. 4.

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HEADLIGHT ADAPTER

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3 Claims. (Cl. 240—41.5)

This invention relates generally to headlight mountings and more particularly to a mounting assembly for headlights embodying a hermetically sealed bulb containing the reflector and including the lens as a unitary part thereof.

The invention has for its primary object the provision of a mounting assembly which can easily and conveniently be mounted in a conventional headlight housing to make possible the mounting of hermetically sealed headlamps of the type above mentioned even though the conventional housing did not contemplate the mounting of such headlamps therein.

Still further the present invention contemplates the provision of an adapter assembly which comprises a pair of ring-like members, the first of which is adapted to be clamped within a conventional housing. The second ring is adjustably mounted on the first ring and includes means for clamping a hermetically sealed bulb containing the reflector and lens as a unitary part thereof.

In conventional headlamp structures, which include a separate bulb reflector and lens, it is customary to provide a housing having a circular inwardly extending flange, which serves as a seat for the reflector. The present invention contemplates the provision of an adapter ring assembly having on the rear side thereof clamping means for securing said assembly to said inwardly extending flange, said clamping means being sufficiently retractable in a radial direction to permit insertion through the opening provided by said inwardly extending flange.

Many other and further objects, advantages, and features of the present invention will become apparent from the following specification when considered in the light of the accompanying drawing forming a part thereof.

In the drawing:

Figure 1 is a front elevational view with parts broken away showing the adapter assembly of the present invention mounted in a conventional headlamp housing and having a hermetically sealed headlamp unit mounted therein.

Figure 2 is a longitudinal sectional view taken along the line 2—2 of Figure 1 and is slightly enlarged to illustrate the parts more clearly.

Figure 3 is an enlarged fragmentary sectional view taken along the line 3—3 of Figure 1, illustrating in detail one of the adjustable mountings for interconnecting the two rings making up the adapter.

Figure 4 is an enlarged fragmentary sectional view taken along the line 4—4 of Figure 1 illustrating the means for clamping the hermetically sealed headlamp unit in position with respect to the adapter.

With more particular reference to the drawing, it will be noted that the headlamp housing illustrated has been shown more or less diagrammatically as it forms no part of the present invention. The present invention relates primarily to the adapter ring assembly and as will be more clearly brought out below the adapter ring assembly herein described can be used in any headlight housing which includes a frontal opening defined by an inwardly projecting flange of generally circular form.

For purposes of illustration, the device of the present invention is shown mounted in a headlamp housing 1 which has a circular frontal opening defined by an inwardly projecting flange 2.

The flange 2 is preferably covered with a resilient cushioning strip 3 which serves to permit a firm and positive mounting of the adapter assembly with respect thereto as hereinafter described.

The adapter assembly proper comprises an annular base ring 4 which has a large opening to permit mounting of a hermetically sealed headlamp unit as hereinafter described. The base ring 4 has formed as integral parts thereof a plurality of rearwardly extending projections 5 which are adapted to extend through the frontal opening of the housing 1 defined by the flange 2.

Each of the projections 5 threadably receives a clamping screw 6 which may be locked in adjusted position by means of a lock nut 7, clearly illustrated in the upper portion of Figure 2. The projections 5 are each formed to provide a slot 8 adjacent the base thereof adapted to receive the inner end of a clamping member 9 which as seen in Figure 2 has a reversely bent rear end. By reference to the drawing, it will be clear that when the screws 6 are unscrewed to retracted position, the clamp members 9 may be removed from or replaced in the slots 8. This is sometimes necessary when mounting the adapter assembly in a headlight housing having a frontal opening of small diameter.

The adapter assembly also includes a second ring member 10 of generally the same inner and outer diameter as the base ring 4. This second ring 10 is adjustably mounted with respect to the base ring 4 by means of a plurality of peripherally spaced adjustable connectors shown in detail in Figure 3. It will be clear by reference to Figure 3 that as the screw 11 is unscrewed from the ring 4, the spring 12 will force the ring 10

away from the base ring 4 and therefore, by adjusting each of these adjustable connections, the position of the ring 10 with respect to the ring 4 may be set to assume any desired angle.

As is best illustrated in Figure 4, the ring 10 has mounted thereon a plurality of clamps 13 secured to the ring 10 by means of screws 14. Hermetically sealed headlamp units 15 more or less diagrammatically illustrated in the drawing include a peripheral flange adapted to be received between the outer face of the ring 10 and the inner surfaces of the clamping elements 13 to lock the headlamp unit in fixed position with respect to the ring 10.

The adapter may be installed in a conventional headlamp housing in the following manner. The screws 6 are fully retracted. The base ring is placed against the rubber covered flange 2 and the clamps 9 are forced against the rear side of the flange 2 by screwing up the screws 6.

The electrical connections are made in any suitable and convenient manner. The hermetically sealed headlamp unit is clamped in place by means of the clamps 13 to lock it firmly in position with respect to the ring 10. The screws 11 are then adjusted until the beam of the headlamp unit is aimed in the proper direction.

A finish ring 16 may then be mounted in position by means of screws 17 threadably received in suitable apertures in the ring 10, to provide a suitably attractive exterior appearance of the assembly.

While but one specific embodiment of the invention has been illustrated in the drawing and described above, many changes, alterations, and modifications may be made falling within the generic spirit and scope of the invention as defined in the following claims.

What is claimed is:

1. A mounting assembly for mounting a hermetically sealed headlight bulb, lens and reflector assembly which comprises, an annular mounting ring, a plurality of radially retractable clamps on said ring for fixedly anchoring said mounting ring in a headlamp housing, a second ring, adjusting screws serving to adjustably mount said second ring on said first ring, and clamping means for fixedly mounting said headlamp assembly with respect to said second ring.

2. A mounting assembly for mounting a hermetically sealed headlight bulb, lens and reflector assembly, which comprises an annular mounting ring, a plurality of radially retractable clamps on said ring for anchoring the same in position within a headlamp housing, operating means for said clamps accessible through the opening in said ring, a second ring, means for adjustably positioning said second ring with said first mentioned ring, and clamping means on said second ring for anchoring said headlight assembly thereto.

3. A mounting assembly for mounting a hermetically sealed headlight bulb reflector and lens assembly within a headlamp housing, comprising an annular ring-like member having radially retractible clamping means thereon adapted to anchor said ring-like member rigidly in position within said headlamp housing, means for adjustably mounting said hermetically sealed headlight bulb reflector and lens assembly with respect to said ring, said last-mentioned means comprising a second ring-like member adjustably mounted with respect to said first ring-like member and means on said second ring-like member for clamping said bulb assembly in position thereon.

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