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(54) LIGHT, PARTICULARLY FOR AUTOMOBILE VEHICLE

(71) We, CIBIE PROJECTEURS, a French Body Corporate, residing at 17 rue Henri Gautier, 93 Bobigny, France, do hereby declare the invention, for which we pray that

a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to a light, particularly but not exclusively for an automobile vehicle, of the type comprising two elements with cooperating peripheral flanges, one of which elements constitutes the lamp-holding base, and the other the globe or lamp cover, and a gasket gripped between the two flanges, at least one of these elements being moulded and provided with a groove adapted to receive the gasket.

In a known arrangement, the moulded element is the base and has a single groove adapted to receive the gasket, which is of circular cross-section, and has two free ends, rather than being a complete ring. The diameter of the gasket, when unstressed, is slightly larger than the width of the groove, and the gasket is fitted as follows: an axial effort is applied longitudinally to the gasket, producing a reduction in the diameter by transverse retraction. The gasket is then positioned in the groove where the effort is released. The elasticity of the material constituting the gasket causes the gasket to try to return to its original configuration. This tendency to return to its original diameter secures the gasket in the groove. The ends of the gasket do not quite meet one another, and thus clear an opening made in the peripheral flange of the base, this opening also being referred to as a demisting hole. The base is mounted in the light so that the opening is located at the bottom. The function of this opening is to enable the globe to be demisted, by establishing a communication between the interior of the light and the atmosphere. The longitudinal dimension of the demisting hole is determined by the distance between the free ends of the gasket. A drawback of the arrange-

ment described is that, in the course of time, the gasket ages and undergoes a certain shrinkage associated with a loss of elasticity. The transverse shrinking involves a relatively greater longitudinal shrinking, under the effect of the remaining elasticity, which is sufficient to modify the dimensions of the demisting hole. Although the function of demisting or any other like function of the demisting hole is not disturbed thereby, it is nevertheless unfortunate that this opening becomes larger and allows the passage of mud- or dust-laden particles which soil the interior of the light.

According to the present invention, a light comprises two elements with cooperating peripheral flanges, one of which elements constitutes a base of the light and the other a globe or cover of the light, and a gasket having two free ends and gripped between the two flanges, at least one of the said two elements being moulded and provided with a groove adapted to receive the gasket, which groove has wedging means for holding the ends of the gasket, maintaining them at a predetermined distance from each other.

In a first embodiment, the wedging means comprises two wells formed in the groove, the wells being smaller in section than the gasket, and adapted to receive the ends of the gasket.

In a second embodiment, the wedging means comprises two notches made in the lateral walls of the groove and adapted to hold the ends of the gasket by wedging.

In a third embodiment, the wedging means comprises a plurality of transverse teeth formed in the groove and adapted to hold the ends of the gasket.

In general, therefore, the invention assists in obtaining a demisting hole of constant width.

The invention may be carried into practice in various ways, but three specific embodiments will now be described by way of example, with reference to the accompanying drawings, in which:

Figure 1 shows a first light base fitted

with a gasket, and embodying the present invention;

Figure 2 is a view in section of a detail along II—II of Figure 1;

5 Figures 3 and 4 show second and third light bases fitted with gaskets, and embodying the present invention; and

Figure 5 is a perspective view of the peripheral flange of the third light base.

10 Referring now to the drawings, Figure 1 shows a light assembly 10, seen from the front, the globe or cover having been removed. The base (referenced 12) is composed of a concave portion 14 and a peripheral flange 16, provided with a groove 18. A demisting hole 20 is formed in the lowest part of the peripheral flange 16; this hole 20 interrupts the groove 18.

20 A gasket 22 occupies the groove 18. This gasket is of circular cross-section, with two free ends, and its diameter is slightly larger than the width of the groove 18. In effect, the gasket 22 is an incomplete O-ring; because it is not a complete ring, it can clear the opening 20. A globe or cover (not shown) is provided with a flange which is homologous to the flange 16, to cooperate with the flange 16 and the gasket 22. A lug is provided on the flange of the cover, in order to partly block the opening 20, with the result that the communication between the cavity 14 and the atmosphere is made via a passage of a predetermined size.

35 In the direction of the axis of the base, perpendicularly to the plane of the flange 16, wells 24, whose diameter is smaller than that of the gasket 22, are made in the groove 18 on either side of the opening 20.

40 During assembly, the ends of the gasket 22 are wedged in the wells 24 and the rest of the gasket is positioned in the groove 18.

In a second embodiment of the invention, illustrated in Figure 3, the elements common to the first embodiment are referenced by like numerals. The groove 18 of the flange 16 is formed between inner and outer peripheral walls 26 and 28, interrupted at the location of the opening 20.

50 The inner peripheral wall 26 is provided with two notches 30 adapted to hold the ends of the gasket 22. The width of the notches must be smaller than the diameter of the gasket. When the gasket 22 is placed in position, its ends are therefore wedged, as before, this time in the notches 30, before the assembly is completed.

60 In a third embodiment of the invention, shown in Figures 4 and 5, all elements common to the three embodiments remain referenced as hereinabove (from 10 to 22).

65 As in the second embodiment, the inner and outer peripheral walls defining the groove 18 of the base are referenced 26 and 28. Near the opening 20, teeth 32 are integral with the walls.

These teeth 32 are in the form of triangular prisms integral with the walls (26 or 28) and perpendicular to the plane of the flange 16. Each tooth cooperates with the gasket 22 by its point projecting from the partition of the groove 18. The teeth integral with the inner wall 26 are not opposite the teeth integral with the outer wall 28. Thus the gasket is wedged between the active point of each tooth 32 and the wall which faces it in the groove 18.

Figure 5 also shows a globe or cover 40 provided with a flange 42 homologous to the flange 16 and in particular equipped with a rib 44 adapted to cooperate with the gasket 22.

85 In Figure 4, each end of the groove 18 is closed at the opening 20 by a bridge 34 which connects the inner and outer walls forming the groove 18. This variant construction is only one example; other variants are possible.

90 It should be understood that the present invention may be applied to any light employing a gasket between the globe or cover and the base of the light.

WHAT WE CLAIM IS:—

1. A light comprising two elements with cooperating peripheral flanges, one of which elements constitutes a base of the light and the other a globe or cover of the light, and a gasket having two free ends and gripped between the two flanges, at least one of the said two elements being moulded and provided with a groove adapted to receive the gasket, which groove has wedging means for holding the ends of the gasket, maintaining them at a predetermined distance from each other.

2. A light as claimed in Claim 1, in which the wedging means comprises two wells formed in the groove, the wells being smaller in section than the gasket, and adapted to receive the ends of the gasket.

3. A light as claimed in Claim 1, in which the wedging means comprises two notches made in the lateral walls of the groove and adapted to hold the ends of the gasket by wedging.

4. A light as claimed in Claim 1, in which the wedging means comprises a plurality of transverse teeth formed in the groove and adapted to hold the ends of the gasket.

5. A light particularly for an automobile vehicle, substantially as hereinbefore described and illustrated in the accompanying drawings.

6. A light, comprising two elements, namely a base and a globe, which have opposed peripheral faces with a gasket of incompletely annular form positioned between them, at least one of the elements being moulded and having in its peripheral face

a groove for the gasket, the ends of the gasket being held at a predetermined spacing by jamming means.

KILBURN & STRODE,
Chartered Patent Agents,
Agents for the Applicants.

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FIG.1

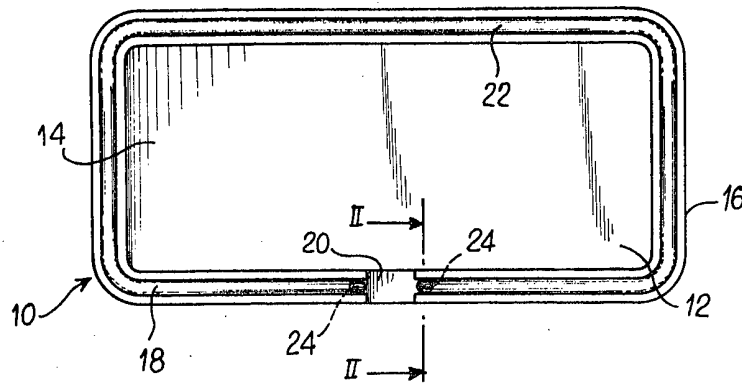


FIG. 2

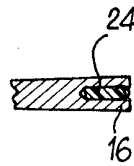
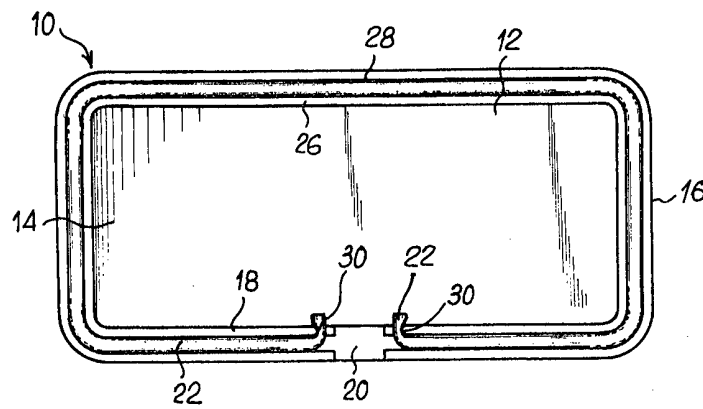


FIG. 3



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COMPLETE SPECIFICATION

2 SHEETS

This drawing is a reproduction of
the Original on a reduced scale
Sheet 2

FIG. 4

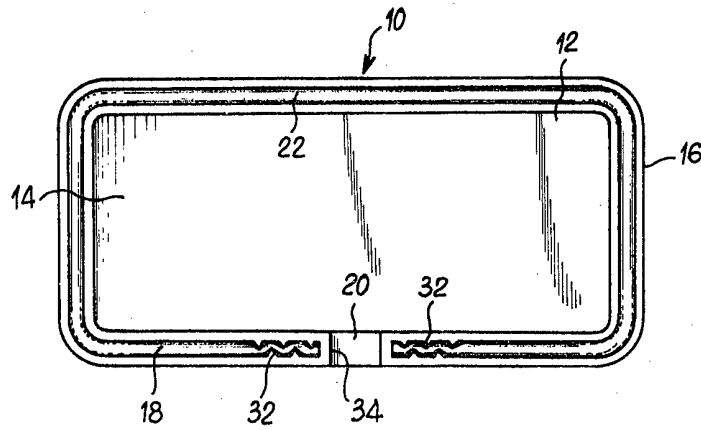


FIG. 5

