(12) UK Patent Application (19) GB (11) 2 245 697 (13) A

(43) Date of A publication 08.01.1992

(21) Application No 9009821.1

(22) Date of filing 01.05.1990

(51) INT CL[5]
B60Q 1/20 1/48

(52) UK CL (Edition K)
F4R RFN R233 R34Y R541 R590 R603

(56) Documents cited
None

(58) Field of search
UK CL (Edition K) F4R RFN
INT CL[5] B60Q 1/20 1/48

(71) Applicant
Jaguar Cars Limited

(Incorporated in the United Kingdom)

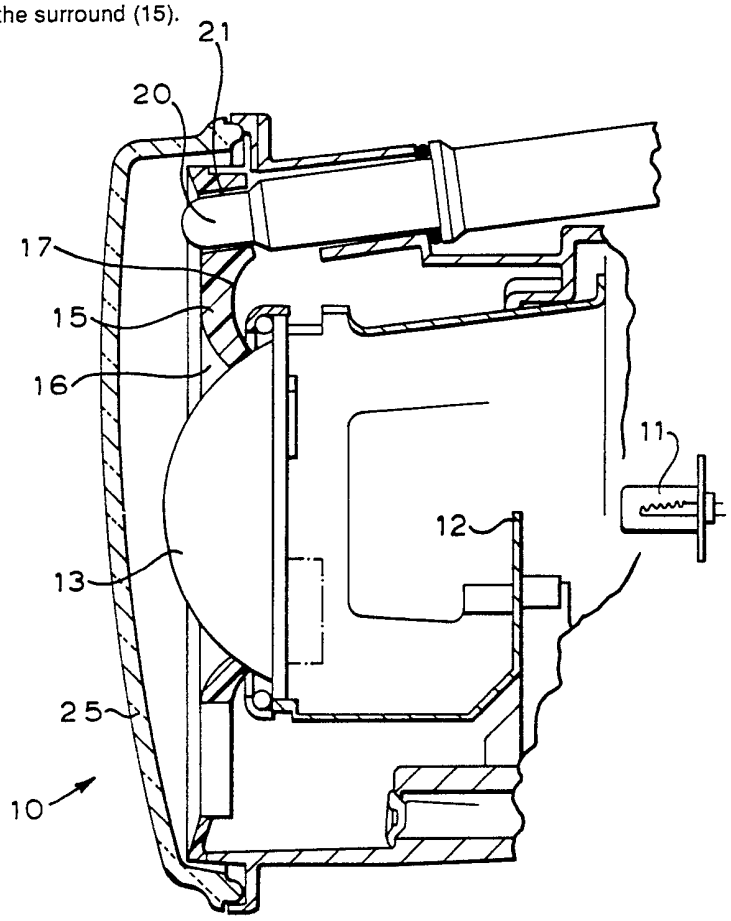
Browns Lane, Allesley, Coventry, CV5 9DR, United Kingdom

(72) Inventor
Royston Neville Hancox

(74) Agent and/or Address for Service
Anthony Cundy & Co
384 Station Road, Dorridge, Solihull, West Midlands, B93 8ES, United Kingdom

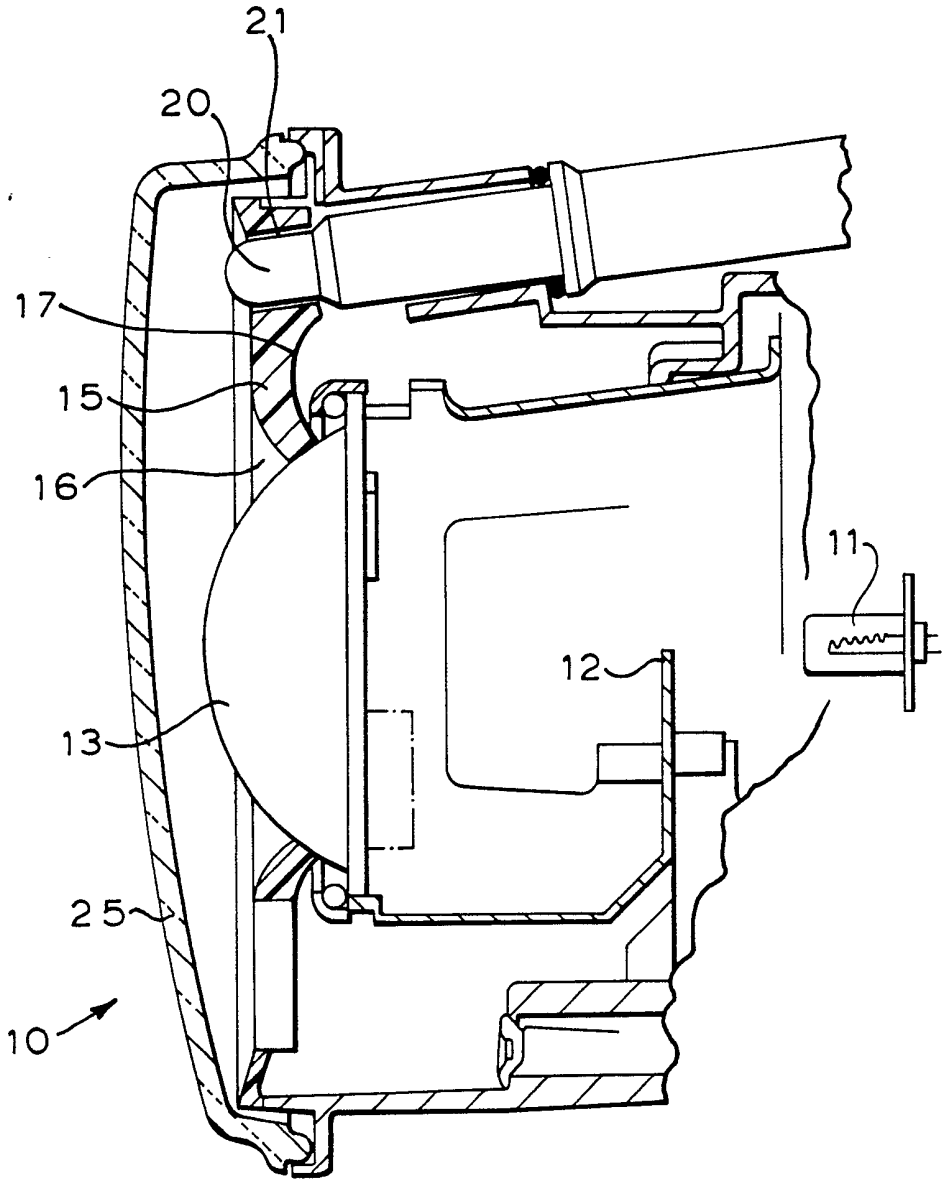
(54) Vehicle lamps

(57) A vehicle lamp has a light source (11), a lens (13) to focus said light source (11), a surround (15) made of translucent material and provided with a reflective surface (17) on its rear surface being provided around the lens, and a secondary light source (20) being associated with the surround (15) so that light therefrom will be transmitted around the surround (15) and emitted from the front surface of the surround (15).



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

GB 2 245 697 A


21
20
17
15
16
11
12
13
25
10

VEHICLE LAMPS

The present invention relates to vehicle lamps and in particular to vehicle headlamps or auxiliary lamps of the projector-type.

In modern dipped headlamps or fog lamps of the projector-type, a beam of light is directed past a mask which shapes the beam, and is then highly focused by means of a lens. Due to optical restraints, such lamps are significantly smaller than conventional headlamps, the diameter of a projector-type dipped headlamp typically being 50% of that of a conventional headlamp.

For aesthetic considerations and also for improved visibility, it is desirable that the illuminated area of such lamps be enlarged to an area corresponding to that of a conventional headlamp.

In accordance with UK Patent Application GB 2175989A, one method of doing this is to surround the lens of a projector-type lamp, with a reflector and utilise a parking light to illuminate this reflector, so as to provide an illuminated area equal to a conventional headlamp. However, as part of the reflector will be shaded by the highly convex lens of the projector-type lamp, illumination around the

outside of the projector-type lamp will be very uneven.

The present invention provides a projector-type lamp of a size similar to conventional headlamps in which the outer periphery of the lamp is illuminated uniformally.

According to one aspect of the present invention a vehicle lamp comprises a light source, a lens to focus said light source, a surround made of translucent material being provided around the lens and a secondary light source being associated with said surround so that light from the secondary light source is transmitted around the surround, a reflective surface being provided on the rear surface of the surround so that light transmitted thereby will be emitted from the front surface of the surround.

In the lamp described above, light from the secondary source will be piped around the surround so as to provide uniform illumination thereof.

An embodiment of the invention is now described, by way of example only, with reference to the accompanying drawing which illustrates partially, in cross-section, a dipped headlamp in accordance with the present invention.

As illustrated in the accompanying drawing, a dipped headlamp 10 comprises a light source 11 which may, for

example, be a quartz halogen light bulb. A reflector (not shown) directs the light from the light source 11 over a mask 12, which shapes the light beam, and through a convex lens 13 which produces a highly focused dipped beam.

The lens 13 is surrounded by a ring 15 of translucent plastics material. The ring 15 has a highly polished front face 16, the rear face 17 being aluminised to provide a reflective surface.

A light bulb 20 is located within a close clearance aperture 21 in the ring 15. The ring 15 is shaped so that light from the bulb 20 will be transmitted around the ring 15 and emitted from the front face 16 thereof, to provide uniform illumination of the ring 15. The lens 13 and ring 15 are protected by a translucent glass or plastics cover 25.

The bulb 20 will normally be energised when the dipped headlamp 10 is energised so as to provide illumination over the full area of the cover 25. This enables the dipped headlamp 10 to be matched in appearance with conventional main headlamps with which it may be associated. Furthermore, the enlarged area of illumination will improve visibility of the vehicle from a long distance when being driven on dipped headlamps only. Additionally, illumination of the ring 15 may be used as a parking light.

Various modifications may be made without departing from the invention. For example, while a dipped headlamp is described above, the present invention may be used with any projector-type lamps, for example main headlamps, combined dipped/main headlamps, fog or auxiliary driving lamps, or with other forms of lamp where it is desirable to increase the area of illumination.

While in the above embodiment the secondary source of light is provided by the bulb 20, light coming from the lens 13 may be used to illuminate ring 15, the light being picked up at the inner periphery of ring 15.

CLAIMS

1. A vehicle lamp comprising a light source, a lens to focus said light source, a surround made of translucent material being provided around the lens and a secondary light source being associated with said surround so that light from the secondary light source is transmitted around the surround, a reflective surface being provided on the rear surface of the surround so that light transmitted thereby will be emitted from the front surface of the surround.

2. A vehicle lamp according to claim 1 in which the surround comprises a ring of translucent plastics material, the front face of the ring being highly polished and the rear face being aluminised to provide the reflective surface.

3. A vehicle lamp according to claim 1 or 2 in which the secondary light source is a light bulb which is located in a close clearance aperture within the surround.

4. A vehicle lamp according to any one of the preceding claims in which the surround is shaped so that light from the secondary light source will be transmitted around the surround and emitted from the front face thereof to provide uniform illumination of the surround.

5. A lamp according to any one of the preceding claims in which a translucent glass or plastic cover is mounted in front of the lens and surround.

6. A vehicle lamp substantially as described herein with reference to and as shown in the accompanying drawings.

Published 1991 at The Patent Office, Concept House, Cardiff Road, Newport, Gwent NP9 1RH. Further copies may be obtained from Sales Branch, Unit 6, Nine Mile Point, Cwmfelinfach, Cross Keys, Newport, NP1 7HZ. Printed by Multiplex techniques ltd. St Mary Cray, Kent.