

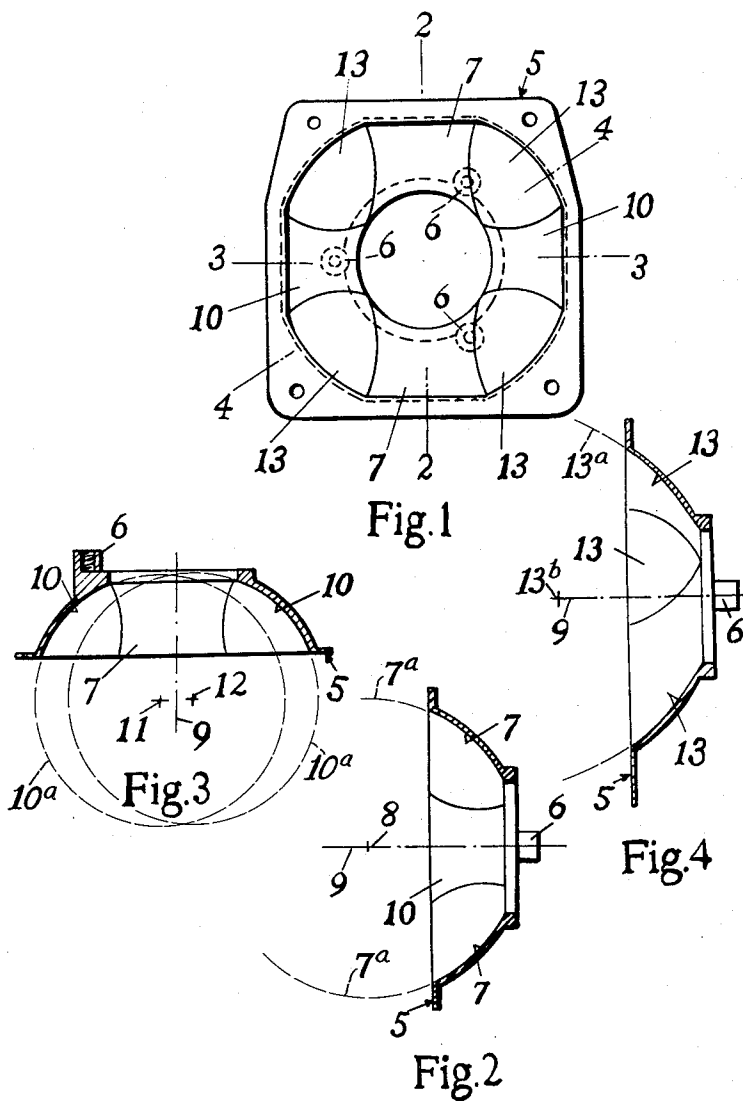
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VEHICLE LAMP REFLECTORS

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VEHICLE LAMP REFLECTORS

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1 Claim. (Cl. 240—103)

This invention relates to reflectors for use in vehicle tail lamps, stop lamps, direction indicator lamps and the like, and has for its object to provide such a reflector in an improved form.

A reflector according to the invention is of dished form in which the internal surface of the dished part has eight integral sections such that one pair of opposite sections form portions of a cylinder, another pair of opposite sections form portions of a pair of cylinders struck from parallel spaced axes, and the two pairs of opposite and intervening sections form portions of surfaces approximating to a paraboloid of revolution.

In the accompanying drawings FIGURE 1 is a front view illustrating one example of the invention, and FIGURES 2, 3 and 4 respectively are sections on the lines 2—2, 3—3, and 4—4 in FIGURE 1.

Referring to the drawings, the reflector 5, which may be employed in conjunction with a vehicle tail or stop lamp, or direction indicator lamp is of dished form with a hole at its centre for the reception of the lamp bulb. Moreover, integral lugs 6 may be provided on the reflector to facilitate the mounting thereof.

The internal surface of the dished portion of the reflector 5 is formed with eight integral sections of which adjacent sections have different curvatures. The sections 7 (FIGURE 2) which are to be the upper and lower sections of the reflector are formed as parts of the internal surface of an imaginary cylinder 7a having its horizontal axis 8 intersecting a central horizontal axis 9 through the reflector and on which the filament of the bulb (not shown) is to be located.

The side sections 10 (FIGURE 3) of the reflector are formed as parts of the internal surfaces of a pair of additional imaginary cylinders 10a respectively, these two cylinders having their vertical axes 11, 12 parallel and spaced apart in a horizontal plane at opposite sides of the axis 9, and being disposed at the same sides of this axis as their respective sections.

The intervening two pairs of opposite sections 13

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(FIGURE 4) of the reflector are formed as parts of a surface which approximates to an imaginary paraboloid of revolution 13a generated about the axis 9 and having its focal point 13b at or close to the position to be occupied by the filament of a bulb in the lamp.

It will be appreciated that with a lamp incorporating a reflector as above described light will be reflected from the sections 7 and initially converge and then diverge from the axis 9 in a vertical direction. Similarly light will be reflected from the sections 10 and initially converge before diverging at a greater angle from the axis 9 in a horizontal direction. Moreover, light will be reflected from the sections 13 so as to travel parallel, or at a slight angle to, the axis 9. The combination of the light reflected from the eight sections and light direct from the lamp will thus ensure that the lamp can be seen readily throughout a wide arc in the horizontal plane.

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

A vehicle lamp reflector of dished form having a central hole for the reception of a lamp bulb, and having an internal surface provided with eight integral sections which are disposed in four pairs with the sections constituting each pair situated at diametrically opposite sides of the central axis of the reflector, the sections constituting one pair being shaped to correspond with portions of an imaginary single cylinder having its axis intersecting the central axis of the reflector, the sections constituting another pair being shaped to correspond with portions of a pair of additional imaginary cylinders having spaced and parallel axes situated at opposite sides of the axis of the first mentioned imaginary cylinder, and the sections constituting the remaining pairs being situated between and spaced apart by the sections constituting the other pairs, and being shaped to correspond approximately with an imaginary paraboloid of revolution generated about the central axis of the reflector, and having its focal point in the region of the position to be occupied by the filament of the lamp bulb.

References Cited in the file of this patent

UNITED STATES PATENTS

247,589	Wheeler	Sept. 27, 1881
1,103,252	Benjamin	July 14, 1914
2,693,524	Harris	Nov. 2, 1954