ABSTRACT: A double faced signal lamp assembly has a built-in, auxiliary side marker lamp. The lamp body supports a socket for a based bulb within the cutout of a central web to provide illumination from opposite faces of the lamp assembly through colored lens covers, while a smaller, wedge-type bulb is supported within a receptacle formed in one side of the lamp body periphery to provide side marker illumination.
This invention relates to a special lamp assembly construction and in particular to a turn signal lamp having an auxiliary side marker portion. The present invention is concerned with an economical and efficient lamp assembly especially designed for mounting on vehicles in order to provide turn signal illumination both forwardly and rearwardly of the lamp assembly. The lamp body is formed of a relatively rigid, opaque material having a substantially rectangular rim and a central web supporting a lamp socket and bulb between spaced lens covers secured to the lamp body on opposite sides of the web. One side of the lamp body rim is recessed to form a cavity or receptacle for a small, wedge-type lamp bulb held in place by a pair of yieldable contact elements through which electrical connections to the lamp bulb are made for side marker illumination. A side lens cover is secured to the recessed side section of a lamp body rim in order to enclose the side marker bulb. A threaded mounting post is integrally connected to the lamp body for mounting thereof and to enclose an electrical cable having conductors connected to the main lamp socket and the bulb supporting contact elements for the side marker lamp bulb.

These together with other objects and advantages which will become apparent to those skilled in the art from the following description of one preferred embodiment of the invention and the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective view of a lamp assembly constructed in accordance with the present invention.

FIG. 2 is a side elevation view of the lamp assembly with the side cover lens removed.

FIG. 3 is a top sectional view taken substantially through a plane indicated by section line 3-3 in FIG. 1.

FIG. 4 is a side elevation view of the lamp assembly with one of the main lens covers removed and the side lens cover and gasket disassembled.

FIG. 5 is a side sectional view taken substantially through a plane indicated by section line 5-5 in FIG. 1.

FIG. 6 is a perspective view showing disassembled portions of the side marker lamp portion.

Referring now to the drawings in detail, FIG. 1 illustrates the lamp assembly of the present invention generally denoted by reference numeral 10. The lamp assembly is adapted to be mounted on a vehicle so as to emit illumination from three sides. Thus, the lamp assembly may be utilized as a turn indicator providing a turn signal both forwardly and rearwardly and at the same time provide a side marking signal. The turn signal may be viewed from the front and rear of the vehicle as well as from the side. In the illustrated embodiment of the invention the lamp assembly is generally rectangular in shape.

A generally rectangular lamp body 12 forms front and rear faces closed by lens covers 14 which may be colored red and amber, for example. The lamp body includes outer peripheral side portions including a top side 16, a bottom side 18, a lateral side 20 adapted to be positioned adjacent the vehicle and a second recessed lateral side 22 which is thicker than the other side portions mounting a side lens cover 24. An externally threaded post 26 is integrally connected to the bottom side 18 of the lamp body for mounting thereof on the vehicle. An electrical cable 28 extends upwardly through the mounting post 26.

Referring now to FIGS. 3, 4 and 5 in particular, the lamp body 12 is formed from a rigid plastic material which may be opaque and electrically nonconductive. Integrally connected to the peripheral rim of the lamp body, is a relatively thin, planar central web 30 which may be formed with laterally projecting reinforcing formations 32 extending from each corner to a central cutout 34 that extends vertically from the bottom side 18 as more clearly seen in FIG. 4. Adjacent each rounded corner of the lamp body is a tubular formation 36 which projects laterally from opposite sides of the web 30. The axial ends of the tubular formations 36 are coplanar with shoulder formations 38 internally formed in the peripheral side portions of the lamp body defining a rectangular recess 40 on the front and rear sides of the lamp body within which the lens covers 14 are received. A rectangular sealing gasket 42 is disposed between each lens cover 14 and the lamp body abutting the shoulders 38.

The bores 44 extending through the tubular formations 36, receive the shank portions 46 of screw fasteners that hold the lens covers 14 assembled on the lamp body. The screw fasteners accordingly extend through openings formed in the lens covers in alignment with the bores 44 so that the head portions 48 of the screw fasteners may be received in recesses formed in one of the lens covers as shown in FIG. 1 while the opposite ends of the screw fasteners may threadedly mount the nuts 50 as shown in FIG. 3. Adapted to be similarly received in recesses formed in its associated lens cover through which the threaded ends of the screw fastener shanks 46 extend opposite the head portions 48. Thus, a main lamp chamber 52 is sealingly enclosed by the lamp body between the lens covers 14.

Positioned within the cutout 34 adjacent the bottom side 18 of the lamp body, is a lamp socket 54 as shown in FIGS. 4 and 5. The lamp socket is held in position by a conductive band 56 secured to the web 30 establishing an electrical connection between the lamp socket and conductors 58 and 60 electrically connected to the lamp bulb through the terminal lead 62 as shown in FIG. 4. The conductor 58 forms part of the electrical cable 28 through which current is conducted to the socket 54 and to conductor 60. The socket 54 is electrically connected to one filament of a based lamp bulb 64 locked in position within the lamp socket by means of a bayonet slot 66 and pin 68 projecting from the bulb base 70. The other terminal of the bulb filament is electrically connected to the conductor 72 also forming part of the electrical cable 28 entering the main lamp chamber 52. A third conductor 74 from the electrical cable 28 extends into the main chamber 52 and together with conductor 60 enters a side lamp chamber 76 as more clearly seen in FIG. 3.

The side lamp chamber 76 is formed within a receptacle portion 78 of the lamp body projecting inwardly from the side 22 as shown in FIGS. 3 and 4. The side 22 also forms a shouldered recess 80 adapted to receive the side lens cover 24 which is positioned against the gasket 82 abutting the recess shoulder. Upper and lower tubular formations 84 are formed within the recess 80 of the side 22 in alignment with recessed openings 86 formed in the side lens cover 24 as shown in FIG. 4. Upper and lower fasteners 88 may accordingly extend through the openings 86 and through the gasket 82 for threaded connection to the lamp body through internally threaded bores 90 formed in the tubular formations 84 as shown in FIG. 2.

The conductors 60 and 74 have terminal lead portions thereof respectively soldered to resilient bulb holding contact elements 92 one of which is more clearly shown in FIG. 6. Each bulb holding contact element 92 includes a mounting portion 94 which is positioned against one of the spacer projections 96 integrally connected to the lamp body within chamber 76 on opposite sides of a wedge-base type lamp bulb 98. The lead of one of the conductors is soldered to a tab 100 extending from the mounting portion 94 of the element 92 closely spaced from a pair of guide projections 102 between which the end portion of the conductor is received as more clearly seen in FIG. 2. Each element 92 also includes a resilient clip portion 104 engaging one side of the base portion 106 of the wedge bulb 98 from which the filament extends. Accordingly, the bulb 98 will be supported between the elements 92 and electrical contact established between the bulb filament terminals and the conductors 60 and 74 through which electrical energy is conducted to the lamp bulb 98 for providing side marker illumination.

It will be apparent from the foregoing description, that the lamp assembly of the present invention satisfies side marker
requirements for vehicle turn signal lamps in a novel and economical fashion by facilitating disassembly and repair or replacement of parts such as the lamp bulbs as well as to form a lamp construction which may be economically fabricated.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

I claim:

1. A signal lamp assembly comprising a body having a peripheral rim and a substantially planar web, said rim including an inwardly recessed side section, said web having a cutout extending from the rim in spaced relation to said recessed side section, a lamp socket mounted by the body in alignment with the web, front and rear lens covers secured to the rim on opposite sides of the web enclosing the lamp socket therebetween, bulb mounting means carried by the recessed side section and a side lens cover secured to the side section substantially perpendicular to the web enclosing the bulb mounting means on the side section, said lamp carrying means including a pair of resilient contact elements adapted to support a wedge bulb therebetween.

2. The combination of claim 1 wherein said side section includes an inwardly projecting receptacle having an opaque wall separating a lamp chamber between said front and rear lens covers and a side signal chamber enclosed by the side lens cover.

3. The combination of claim 2 wherein said lamp socket mounts a based bulb within the cutout projecting from opposite sides of the web to illuminate the lamp chamber.

4. The combination of claim 1 wherein said lamp socket mounts a based bulb within the cutout projecting from opposite sides of the web.