Sept. 18, 1956 K. WILFERT 2,763,855

SHIELDED SIGNAL

Filed Jan. 3, 1951

Fig. 1

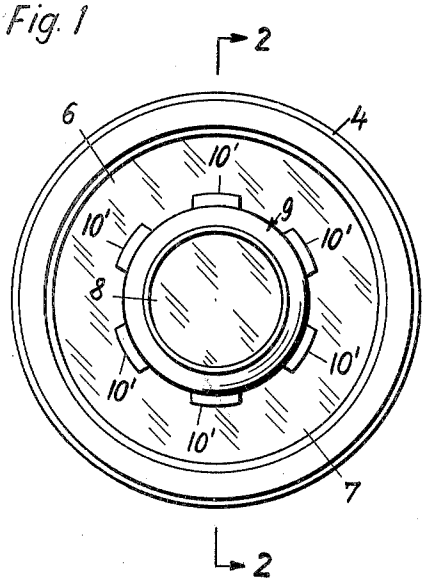
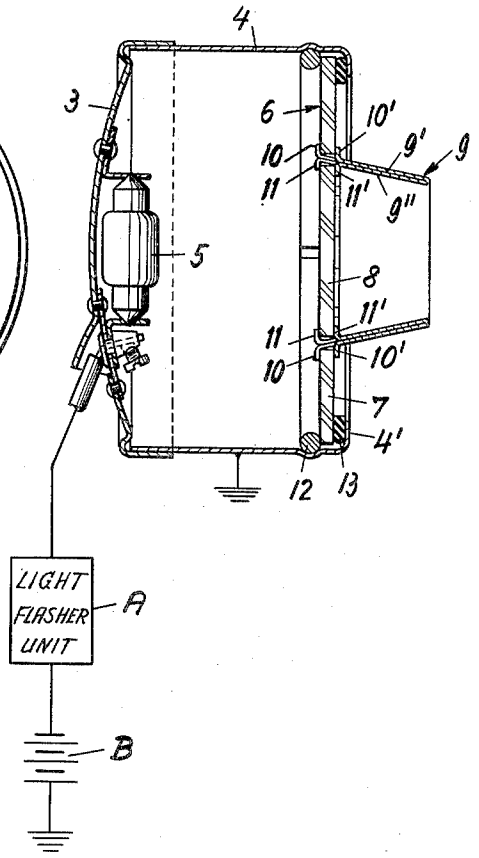


Fig. 2



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SHIELDED SIGNAL

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Claims priority, application Germany January 3, 1950

4 Claims. (Cl. 340—382)

This invention relates to an optical or visual signalling device, and more particularly to an electric intermittently operable light mechanism provided on motor vehicle for producing traffic signals.

A main object of this invention is to improve the visibility of the optical signal and that, if possible, whether sunlight falls or impinges upon the signalling device or not. A further object of the present invention consists in a simple and suitable construction of said device, which enables ready assembly of the various parts, especially of the screen and of the various parts forming the disk-shaped cover.

The conventional intermittently operable light devices as used heretofore have the disadvantage that they are hardly visible, when sunlight brightly falls or impinges upon them, especially in the event that the sun-rays fall somewhat laterally on the transparent closing disk of the intermittently operable light casing. Consequently, in the case of traffic signals located relatively high above the road, for example, on crossways, protecting screens are provided ordinarily along the exterior rim of the transparent closing disk intended to protect the disk from sun-rays falling in from above or from the side. These screens however, in order to be effective even when the sun is low, must be of considerable length, which would render them useless for use with such signalling lights as are disposed on vehicles at a relatively low distance or height from the road as the visibility of the closing disk from which the signal emanates would be almost completely obliterated or obstructed thereby for observers of the signal, such as other drivers or pedestrians.

In contradistinction thereto, an essential feature of the present invention consists in that a protecting screen of suitable annular shape is provided which encircles only part of the closing disk, particularly only its central part. This results in the advantage that in ordinary weather the larger part of the closing disk remains fully visible from all directions, while only when the sun rays are strongly incident thereon, the visibility of the signal will depend on the interior part of the disk which is protected by the screen, which screen, in consideration of the relatively small surface of the part of the closing disk protected thereby may be constructed relatively short.

Further features of this invention may be seen from the following description of an embodiment. In the accompanying drawing:

Figure 1 shows the front view of an intermittently operable light device which serves as an indicator for a motor vehicle, and

Figure 2 is a cross section through its casing taken along line 2—2 of Figure 1.

The casing 4 of the intermittent light which is closed rearwardly by a concave reflector 3 contains a light source in the shape of an electric bulb 5, which, for the purpose of producing a signal is flashed or switched on and off intermittently by the contacts of a conventional flasher or similar device schematically illustrated in the drawing

and designated by reference character A which includes contacts (not shown) intermittently opening and closing an electric circuit from the battery B to the electric light bulb 5. The flasher may be manually operated by the driver as is conventional. The casing is closed in front thereof by a transparent disk 6, preferably of stained glass, synthetic material or the like. This closing disk 6 is formed of an external annular part 7, the visibility of which from all directions is not impaired by any screen whatsoever, and of a central circular inner part 8, surrounded by an annular screen 9. The screen 9 may be constructed of relatively short length and, for example, may be of slightly conical shape, the part of the total disk 6 to be protected by it being of relatively small surface. Thus the screen 9, on the one hand, will not substantially obstruct the visibility of the closing disk 6 and of the intermittently operable light signal, while, on the other hand, even with low sun-rays incident thereon from a lateral direction, the signal remains distinctly visible, as the circular part 8 of the closing disk 6 is protected by screen 9.

The two walls 9′ and 9″ of the screen 9 are formed in any suitable manner, as for example, by folding the screen material back upon itself at the forward end thereof, as shown in Figure 2. The rear end of the double-walled screen 9, i. e., the left end, as viewed in Figure 2, extends through the space formed between the exterior part 7 and the inner part 8 of the closing disk 6, and is provided with radially outwardly extending fingers 10 and 10′, which engage the external annular part 7 on the inside and outside thereof, and with radially inwardly extending fingers 11 and 11′, which engage the inner part 8 on the inside and outside thereof, thereby simultaneously retaining the inner part 8 in place.

The outer or external part 7 is fastened in the casing 4 in any suitable manner, as for example, by means of ring 12, on the one hand, and gasket ring 13 and inwardly bent rim 4′ of the casing 4, on the other.

This invention is not restricted to the embodiment as set forth, but may be varied within the scope of the different features described herein except as defined by the appended claims.

What I claim is:

1. A blinking optical signalling device for motor vehicles and the like, comprising a substantially cylindrical casing, a single lightsource in said casing, a reflector at one end of said casing adjacent said lightsource to reflect the rays from said lightsource toward the other end of said casing, a substantially transparent disk at said other end to provide passage therethrough of said rays outwardly, a screen of substantially circular cross-section having a smaller diameter than that of said disk, and means mounting said screen in substantially the center and outside of said disk for protecting a central part of said disk against sunlight impinging thereon while leaving the surrounding annular part of said disk unprotected.

2. In a blinking optical signalling device for motor vehicles and the like having a casing provided with an opening and a single lightsource only in said casing, a disk of transparent material consisting of an inner part and a complementary outer part, both parts transmitting the light from said single lightsource, an opaque screen enclosing an area adjacent said inner part substantially equal to the surface of said inner part and projecting outwardly in the direction opposite said casing to such an extent as to substantially shield said inner part against incident light rays, and means intermediate said inner and outer part for securing said screen in front of said disk.

3. The combination according to claim 2, wherein said screen is completely enclosed in the longitudinal direction thereof, and wherein said last-named means simultaneously retains said inner part in place.

4. In an optical signalling device of the intermittently operable, blinking type for motor vehicles and the like having a casing provided with an opening and a single lightsource in said casing, a disk of transparent material consisting of an inner part and a complementary outer part, an opaque screen enclosing an area adjacent said inner part substantially equal to said inner part and projecting outwardly in the direction opposite said casing to such an extent as to substantially shield said inner part against incident light rays, means including radially inwardly and outwardly extending fingers on said screen engaging the inner and outer sides of said inner part and said outer part to secure said screen in front of said disk and simultaneously retain said inner part in place relative to said outer part.

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