

May 25, 1926.

1,586,242

J. MCP. DUTHIE

SIGNALING LAMP, SUITABLE FOR DAY AND NIGHT USE, CHIEFLY ON MOTOR CARS

Filed July 23, 1924

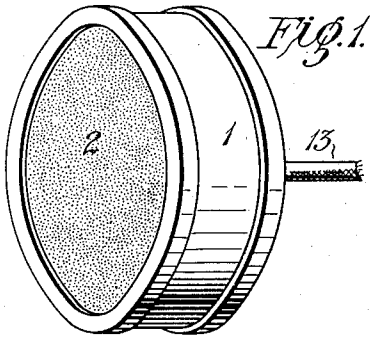


FIG. 1.

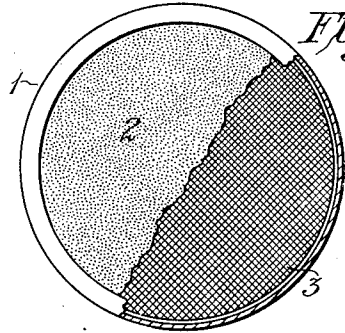


FIG. 2.

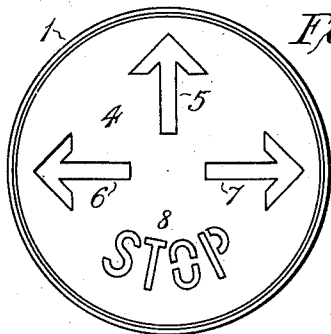


FIG. 3.

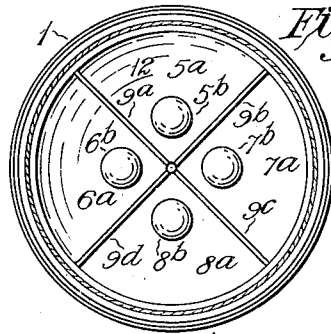


FIG. 4.

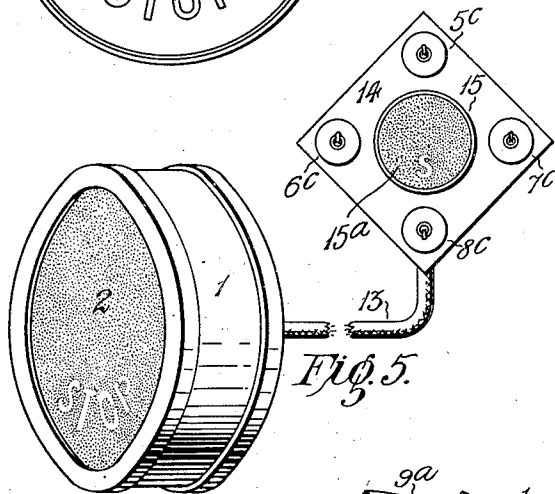


FIG. 5.

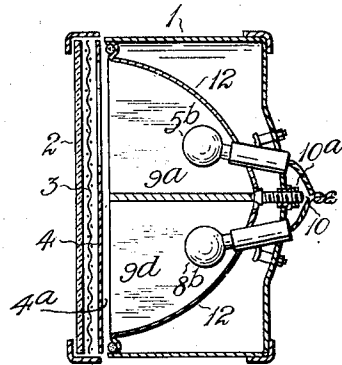


FIG. 6.

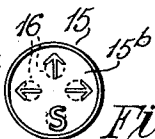


FIG. 7.

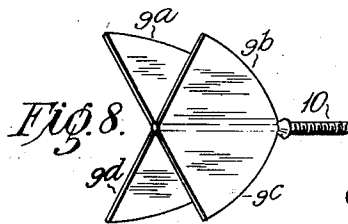


FIG. 8.

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UNITED STATES PATENT OFFICE.

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SIGNALING LAMP, SUITABLE FOR DAY AND NIGHT USE, CHIEFLY ON MOTOR CARS.

Application filed July 23, 1924. Serial No. 727,775.

This invention relates to signaling means especially when any one of a series of signals is exhibitable, each shown by one or more characters or words by the aid of a lamp. My signals will appear clearly in daylight as well as at night, and the invention is useful to provide indicators on motor vehicles, or to direct street traffic, or so on.

I will describe the invention as applied to an indicator on the rear of a motor car and having a casing supported thereby.

I illustrate one form of my improvements; various departures may be made while retaining features hereinafter claimed.

In the drawings Figure 1 is a perspective view of my signaling means, no signal being displayed. Figure 2 is a face view with part of a front glass removed to disclose an adjacent masking element. Figure 3 is varied from Figure 2, the glass and masking element being removed disclosing symbols and characters. Figure 4 is varied from Figure 3 by having the symbol and character-containing element, called also a stencil, removed, a chambered casing and lamps being seen. Figure 5 is a view of the parts in Figure 1, also displaying one signal of the series and also lamp control switches, and a check indicator, which shows what signal is being displayed.

Figure 6 is a vertical side sectional view of my apparatus, the front glass, masking element, and stencil, being spaced apart for clearer illustration.

Figure 7 shows the check indicator stencil plate with lamps thereof shown dotted.

Figure 8 is a perspective view of a lamp fitting used in order that the lamps shall be isolated and accurately located.

The casing 1 is conveniently the casing of a modern car head light; I provide it with a front glass 2 of dulled surface, such being sufficiently though not wholly opaque, and but slightly opaque when illuminated from the interior of the casing. A glass which is frosted or ground is suitable, its surface not acting as a full and easy transmitter or reflector of rays of light striking it from the outside. It does not permit the casing interior elements to be seen when no lamp is alight. I find that an intermediate member 3 is necessary behind this glass, between it and the stencil plate 4, containing the signaling characters, otherwise such characters will be visible from the outside in strong sunlight and this visibility would

defeat an object of my invention, which is to have visibility only by reason of interior illumination. Therefore I provide member 3, and it is of material having characteristics next indicated. It is translucent and is of woven fabric, which allows light to pass between its strands or threads, rather than, or more than, through them. It imparts to light rays which pass outwardly through it its own tint or color, if any, such as pale green; it catches on its outer face light rays which enter the glass, and to some extent stops and to some extent reflects them, thereby preventing characters on the stencil being seen unless a lamp is illuminated. The fabric behind the glass has a somewhat irregular, shiny surface and I find that a tensioned sheet of oiled silk, which I prefer to use tinted, meets the conditions excellently. Of this there may be one or more thicknesses used.

Inwardly of the fabric I locate the metal or other stencil plate 4 which contains light transmitting areas shown as openings 5, 6, 7, 8, constituting the signal symbols and characters, some symbols being arrows, with which is shown the word "Stop." The inner face 4^a of plate 4 is light reflecting. If the driver is moving directly forward, he will exhibit arrow 5, if turning to left or right, arrow 6 or 7; and if about to stop, or at rest, he will show the word "Stop." Other characters can similarly be used.

Rearward of the stencil plate, the casing contains a space divided into compartments 5^a, 6^a, 7^a, 8^a, by a member having partitions 9^a, 9^b, 9^c, 9^d, and in some cases a rear projection, shown as stem 10 which is screw-threaded, and projects rearwardly through the casing and is secured by clamp nut 10^a. All faces of partition walls are reflecting surfaces.

Each symbol or signal is in a separate compartment and in each compartment I provide an electric light bulb 5^b, 6^b, 7^b, 8^b, or like suitable means of illumination. The rear wall of the series of compartments is a reflector 12, such as a parabolic reflector of a motor car head lamp. Each light bulb is wired to a switch located near the driver's seat, 13 being a cable to conduct the electric current. Switches 5^c, 6^c, 7^c, and 8^c are on a base 14 provided with a check indicator 15 which has a front glass 15^a, a stencil 15^b, and characters as arrows and the word "Stop," or the letter S in the relative

positions of the signals of the main indicator and has its lamps 16 arranged in series therewith, so that a driver will always be able to see which signal (if any) is being exhibited.

Ventilation means (not shown) may be provided in the casing.

I claim:—

A device of the character described comprising a casing open at one side and provided at the opposite side with a centrally located threaded opening, a parabolic reflector mounted in the casing and provided with a central opening in line with the threaded opening, partition means dividing the interior space of the reflector into a plu-

rality of compartments, said partition means including a plurality of angularly related wings joined at their inner edges to a central post having one end projected through the central opening of the reflector and threaded through the aligned opening of the casing, a retaining nut engaging the threaded portion of the stem exteriorly of the casing and serving to hold the wings close to the inner wall of the reflector, lamps mounted in the compartments formed between the several wings, and a lens closing the open side of the casing.

In witness whereof I have hereunto set my hand.

JAMES McPHERSON DUTHIE.