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3,078,452

SIGNALING LAMP

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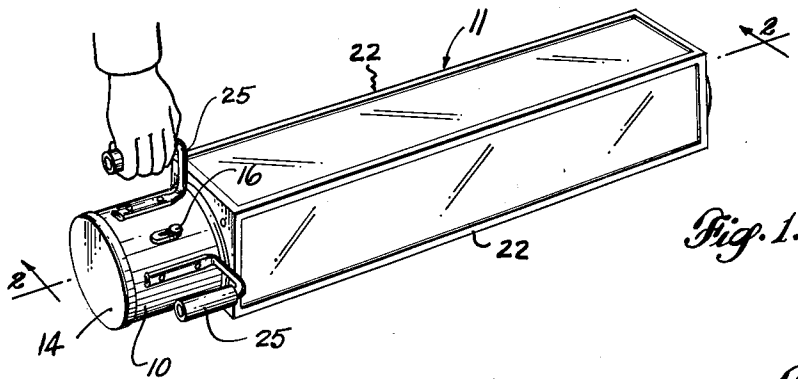


Fig. 1.

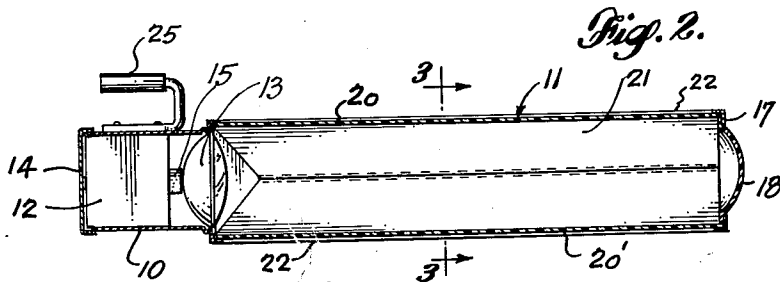


Fig. 2.

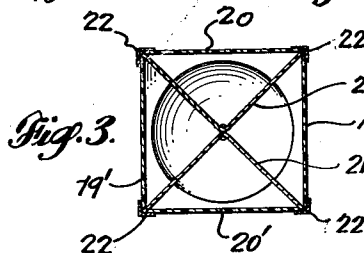


Fig. 3.

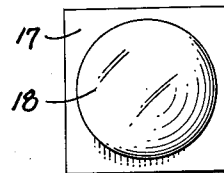


Fig. 4.

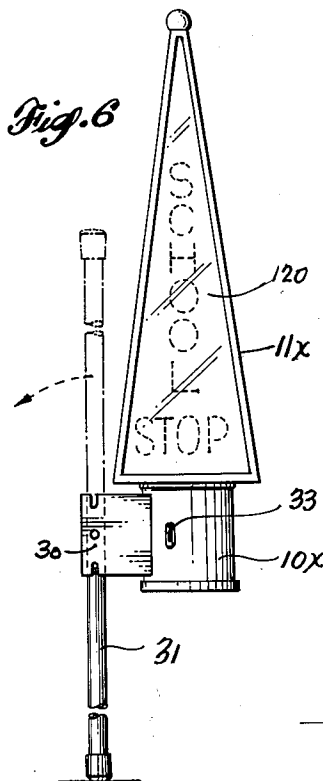


Fig. 6.

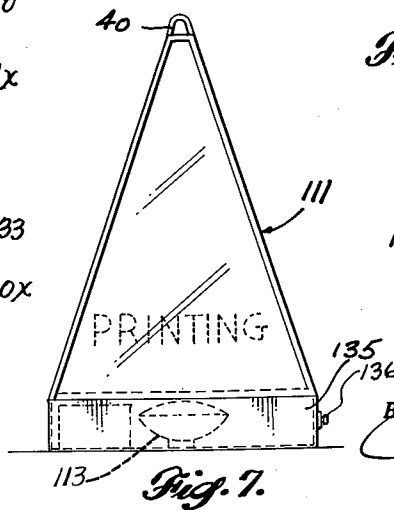


Fig. 7.

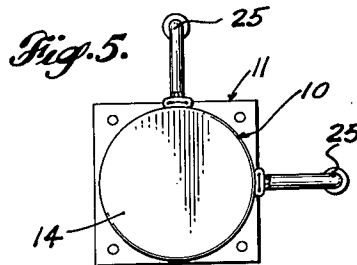


Fig. 5.

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SIGNALING LAMP

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4 Claims. (Cl. 340—366)

This invention relates to illuminated signs, signaling means and displays of both portable hand held types and those designed and adapted for fixed mounting. More particularly, this invention relates to traffic and pedestrian signaling devices that are lighted by electric lamps, by current which is battery supplied and switch controlled, presenting the desired message or warning unlighted, lighted or in flashing light, and in sufficient size and legibility to be understood by any literate person with average eyesight at a distance sufficient to afford the necessary time for precautions or for compliance by anyone approaching the device.

The basic objects of this invention are to save lives; to avoid personal injuries and/or property damage, by the provision of a readily portable, handily usable, electrically lighted device that may be held in the hand or placed in a suitable position of use on any supporting surface for conveying a choice of messages, or warnings to approaching pedestrians and vehicular traffic.

Another object is to provide a device of the above stated character that is especially designed for use by city police; school patrols, highway patrols, and others who may require them.

It is a further object to provide an illuminated signal having a plurality of light reflecting surfaces and co-operatively arranged light diffusing panels, which are supplied with light from a source that is common to all and which panels are selectively made visible to persons which it is intended shall see them merely by the hand turning of proper positioning of the device as distinguished from the usual manual manipulation of switches, shutters, light shields or the like.

A further object of the present invention is to provide a simplified, practical and easy to use signaling means, comprised of a housing of four sections or compartments contiguous and parallel to each other and separated from one another by partitions of light reflective metal or other material joined coaxially along a center line where the compartments meet, and enclosed by the four exterior panels or sides composed of translucent or transparent materials of individual varied colors, thru which light can pass from interior to exterior to illuminate and convey the desired message or warning. These exterior panels being joined or fastened to each other by lengths of corner moldings or angles making these exterior panels structurally interdependent and sturdy. The whole being lighted and illuminated internally from one end or bottom by a light source which is common to all sections equally.

Yet another object of the invention is to provide the portable type of signal with handles whereby it may be conveniently held for the display of the desired color or information to traffic and pedestrians to impart traffic control or other information or instructions to them.

It is also an object of the present invention to provide a signaling means that is light in weight; easy to control and handle and which is shaped to most satisfactorily serve its intended purposes.

Further objects and advantages of the invention reside in the details and features of construction of its various parts; in the assembly of parts and in the mode of use of the device as will hereinafter be described.

In accomplishing these and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein:

FIG. 1 is a perspective view of the present signaling

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device, showing one manner of holding it in use for traffic control.

FIG. 2 is a central longitudinal section of the signal, taken in the vertical plane of line 2—2 in FIG. 1.

FIG. 3 is a cross-section taken on line 3—3 in FIG. 2.

FIG. 4 is an outer end view of the signal of FIG. 1.

FIG. 5 is an inner end view of the signal showing the relationship of its two handles.

FIG. 6 is a side view of a signal device of an alternative form, embodying the features of this invention therein, and showing its use as a mounted or fixed unit.

FIG. 7 is a side view of another alternative form of device, also designed as a portable stationary signal, intended for placement on a highway at/or approaching a dangerpoint and for use of contractors in warning or directing traffic as needed.

Referring more in detail to the drawings:

The presently preferred form of portable signaling device of this invention is that shown in FIG. 1. It has been practical and convenient for an officer or other person using it to hold it in a horizontal position, substantially as therein shown. In that particular design or form of construction, the device comprises, at one end, a battery container or housing 10 to which an elongated reflector housing 11 is attached; these parts being joined coaxially and end to end as well shown in FIGS. 1 and 2.

The battery container or housing 10 may be either of cylindrical formation or square in cross-section. For ordinary uses, this housing would have an axial length of approximately six inches and such diameter as to conveniently contain the required dry cell batteries 12 therein and to mount a "sealed beam" lamp, herein designated by numeral 13, in its inner end portion, as has been shown in FIG. 2. At its rear end this housing 10 is fitted with a removable cover plate 14, and a switch 16 is mounted on a wall or housing 10 in a position for easy manipulation from outside by the hand of the user holding the device.

That elongated part of the signaling means herein designated as the reflector housing 11 is square in cross-section, as shown in FIG. 3, and measures approximately five inches across each side thereof. Preferably, this housing has a length of approximately twenty-four inches. At its inner end, it is fitted over and removably secured rigidly to the outer end of the battery housing 10 as best shown in FIG. 2 and at its outer end has a cover plate 17 secured thereon and this is fitted with a large dome shaped lens 18. Dimensions of parts as above given are not critical and may be made more or less, according to desires, but those now preferred have been herein given merely for the purpose of imparting a better understanding of the size of a practical structure.

The reflector housing 11 is closed at each of its four sides by translucent or transparent panels assembled as shown in FIG. 3. The panels at right and left hand sides, designated at 19 and 19', respectively, would generally be of the same color and those at top and lower sides designated at 20 and 20' of another color. For example, red and green panels are generally employed for traffic signaling.

The partitioning means for this housing are shown in cross-section in FIG. 3 to comprise two stiff sheets of metal 21 or other suitable material, bent along their central longitudinal lines to provide two wings in right angular relationship, as shown. These plates as shown, are fitted within the housing 11 with their 90° angles facing in opposite directions. These plates each have light reflecting surfaces for directing rays of light cast into the housing from the lamp 13, outwardly from the housing through the colored light diffusing panels 19—19' and 20—20'.

It is well shown in FIG. 3 that the longitudinal outer

edge portions of the partitioning plates 21 are contained within angle bars 22 that are fixed lengthwise to the housing and which bars serve to provide corner flanges back of which the longitudinal edges of translucent wall panels are retained. The ends of the angle bars 22 fit, at the inner end of the housing, over the corners of the housing 11 and are suitably releasably bolted or otherwise attached thereto.

For the easy holding of the signal in use, two handle members 25 are fixed to the housing 10 lengthwise thereof, as shown in FIGS. 1 and 5. These may be selectively held in such manner as to position the device to display panels of one or the other color to traffic.

In FIG. 6, I have shown a form of signalling device designed for fixed support but which embodies the same features of construction therein as employed in the device of FIG. 1. It comprises a battery housing 10x similar to housing 10 of FIGS. 1 and 2 and a reflector housing 11x like that of FIG. 2, except for its pyramidal shape. A mounting bracket 30 is attached to one side of housing 10x for application to a supporting standard, as designated at 31, and along which standard the signal 11x may be adjusted and secured to best suit its use either vertically or horizontally. The reflector housing 11x is shown to be of an elongated pyramidal formation with transparent panels as at 120, on which lettered instructions, displays or signs are formed and which may be of selected colors.

The device of FIG. 6 is especially useful at school crossing where signal changes are infrequently required. Words, signs, drawings, etc., may be applied in various way to the illuminated panels, as may be required or as desired. The interior of this reflector housing might be equipped with partitioning means in accordance with those shown in FIG. 3 if such should be desired. Electric current for the sealed beam lamp of this device may be controlled by a suitable manual operable switch or switches; one being shown at 33 in FIG. 6.

The device of FIG. 7 is similar to that of FIG. 6 except in proportionate dimensions of parts. It comprises a light reflecting housing 111 of pyramidal form with a box-like base 135 of substantial dimensions and the sealed beam lamp 113 employed therein is centrally located in the base housing 135 which is shallow in depth with storage batteries arranged therein about the lamp. Lettered messages or signs may be applied as desired to the transparent sidewall panels of the housing 111 which panels may be given various colors as in the devices previously described. The base dimensions of this modified form of device are such as to give sufficient stability to the device as disposed upright directly on the ground or on any other suitable form of support. Its dimensions may be as required for special or ordinary uses of the device.

The present invention has been illustrated in three different models, all of which embody the same basic principles, but it is not the intent that the invention shall be confined to any one of these in particular. Structural features may be changed as found necessary without departing from the spirit of the invention.

What I claim as new is:

1. A device of the character described comprising a base housing with means therein for producing and casting a diverging beam of light from one end thereof, a housing fixed to the base housing at said one end thereof and extending coaxially therefrom to receive said light beam axially thereof, said housing being of substantial length and having longitudinal partitions therein, in radial relationship to its axial line and to its full length and dividing it into a plurality of coextensive longitudinal compartments, facing outwardly to different sides thereof; each compartment being covered at its outwardly facing side by a translucent panel with information transmitting notations thereon and said partitions having light reflecting surfaces whereby light rays from said diverging beam of light are caused to illuminate the panels and information transmitting notations thereon.

2. A device according to claim 1 wherein said base housing has supporting handles fixed thereto in alignment with the various compartments of the reflector housing for selective use for positioning the device for placing the corresponding panel in a predetermined display position.

3. A device according to claim 1 wherein the reflector housing is square in cross-section and the longitudinal partitions are so disposed therein as to provide four longitudinal compartments opening respectively to the four sides of said reflector housing; said partitioning means comprising two rectangular plates bent along their central longitudinal lines, each to provide two reflecting wings in right angular relationship and said plates being joined back to back along the lines of their angular bends to coact in defining four equal angular compartments, inwardly facing angle bars applied longitudinally to the outer longitudinal edges of said wings, providing for support of the compartment closing panels between them.

4. A device according to claim 3 wherein said reflector housing has a lens mounted in its outer end for divergence of light beam upon its passing longitudinally through the several compartments.

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