

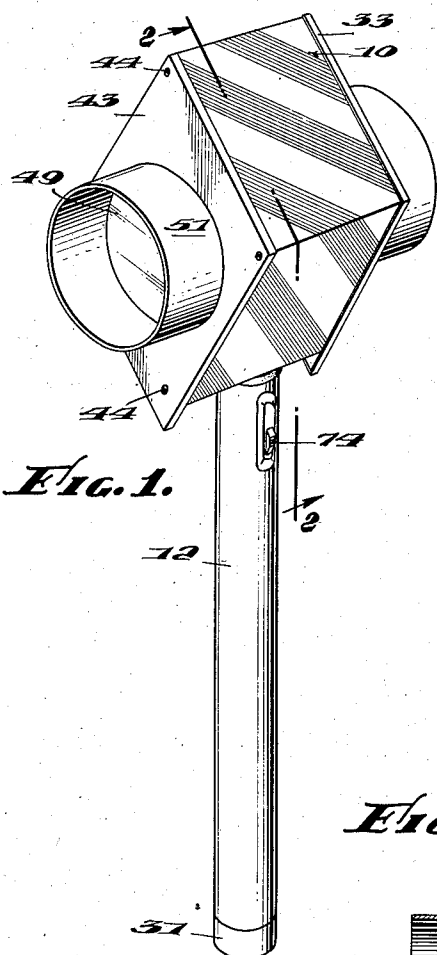
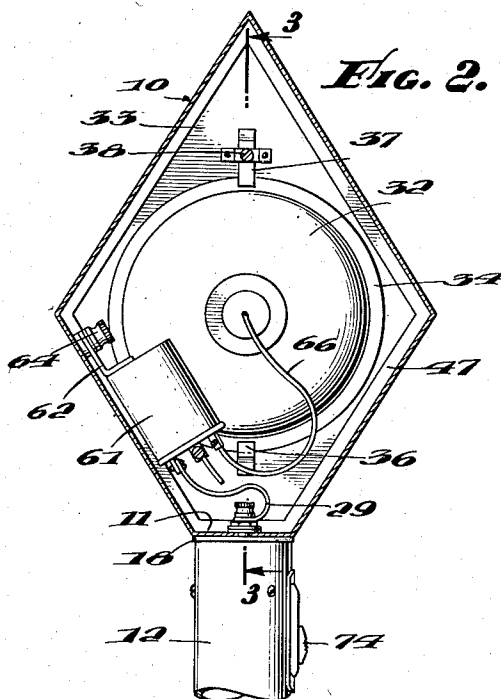
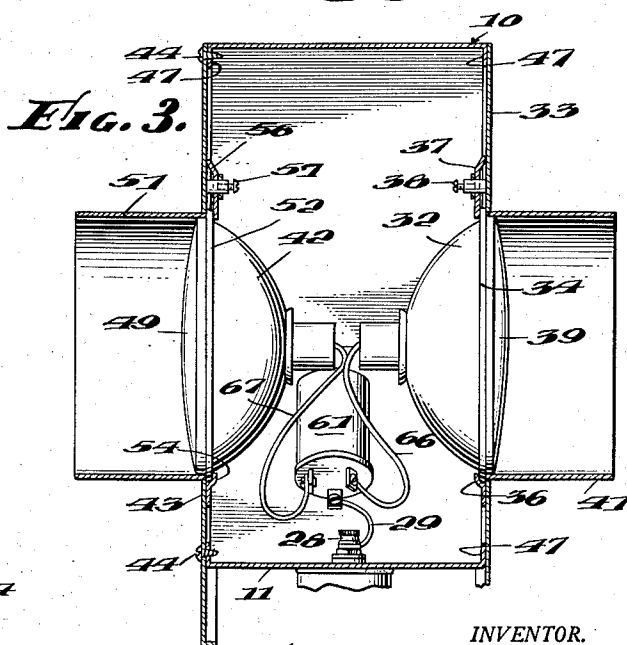
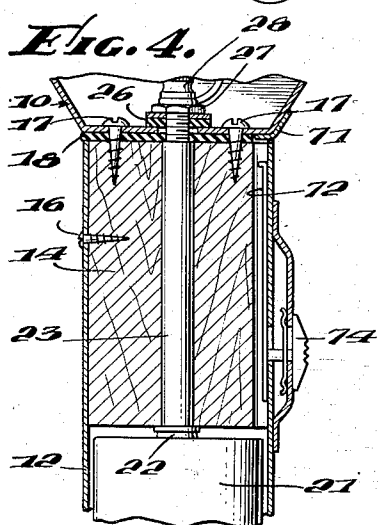
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ILLUMINATED TRAFFIC SIGNAL

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ILLUMINATED TRAFFIC SIGNAL

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2 Claims. (Cl. 340—321)

The present invention relates to a portable traffic signalling device wherein the lamps are alternately energized to provide flashing red signals.

An object of the invention is to provide a manually handled traffic signal device including a housing in which oppositely directed electric lamp bulbs are mounted and which are alternately energized from batteries carried in a hollow handle which affords support for the housing to provide a device which may be conveniently handled by an individual in controlling movements of automotive vehicles or the like at pedestrian cross walks, school crossings and intersections.

Other objects and features of the invention will be appreciated and become apparent as the present disclosure proceeds and upon consideration of the accompanying drawing and the following detailed description wherein an embodiment of the invention is disclosed.

In the drawing:

Fig. 1 is a perspective view of a signalling device exhibiting the invention.

Fig. 2 is a sectional view of the housing taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is an enlarged sectional view of the lower portion of the housing and an upper portion of the hollow handle.

The invention pertains to a portable electrical illuminated traffic signalling device and includes a housing 10 which may be formed of any suitable opaque material such as sheet-metal. The housing may be formed to have a generally diamond shape in cross section as shown in Fig. 2. The lower portion of the housing is provided by a flat wall 11 and a hollow casing 12 forming a handle for the device is attached to the wall 11. The casing 12 is formed of material having good electrically conductive characteristics. The upper end of the handle 12 may be filled with a plug shaped element 14 which may be formed of wood and other materials having insulating characteristics. The plug shaped element 14 is secured to the cylindrical wall of the casing 12 by means of screws one of which is shown at 16 in Fig. 4. A plurality of screws 17 extend through the wall of the housing and are anchored in the plug shaped element 14. A layer of insulating material 18 is provided between the wall 11 and the upper end of the casing 12.

The handle 12 serves as a hand-grip member for supporting the housing 10 and also serves to accommodate a plurality of dry cell battery units one of which is shown at 21. The central terminal 22 of the uppermost battery unit is held in engagement with the head of a bolt 23 which extends through the plug shaped element 14 and through an opening in the insulating layer 18 and a larger hole in the wall 11. This hole is of larger diameter than the bolt 23 so that engagement of the bolt 23 with the housing wall 11 is avoided. The insulating layer 18 serves to effectively prevent lateral movements of the upper end of the bolt with respect to the housing wall 11 and fits

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snugly about the periphery of the threaded upper end of the bolt 23. An insulating washer 26 surrounds the threaded end of the bolt 23 above the metal housing wall 11 and a nut 27 holds the insulating washer 26 firmly against the upper surface of the wall 11. A knurled nut 28 is threaded on the upper end of the bolt 23 and provides means for maintaining a conductor 29 in circuit engagement with the bolt.

The lower end of the casing 12 is closed by means of a cap 31 which is threaded on the cylindrical wall. A spring (not shown) within the cap 31 maintains the central terminal of each battery unit in engagement with the base end of the adjacent battery unit and also makes an electrical connection of the base end of the lowermost battery unit with the casing 12.

A lamp reflector 32 is mounted in an opening in an end wall 33 for the housing 10. The reflector 32 is provided with a peripheral flange 34. The reflector 32 is held in a position closing the opening in the end wall 33 by means of a clip 36 secured to the end wall 33 and a clip 37 which is detachably held in place on the end wall 33 and over the flange 34 by means of a screw 38. A lens 39 formed of suitable material is carried by the reflector 32. The lens 39 is of such material that light passing therethrough will appear red. A cylindrical shield 41 extends from the periphery of the lens 39 and may be secured to the housing end wall 33 by welding or soldering. A reflector 42 is mounted in an opening in the other end wall 43. The end walls 33 and 43 may be secured to the housing 10 by means of screws 44 which extend through openings in the end walls and are threaded into openings in flanges 47. A lens 49 closes the outer end of the reflector 42 and an opening in the end wall 43. The lens 49 may be formed of any suitable material and is such that the light passing therethrough will appear red. A cylindrical shield 51 surrounds the periphery of the lens 49 and may be secured to the end wall 43 by soldering or welding. The flange 52 carried by the reflector 42 is held in engagement with the wall 43 by means of a clip 54 attached to the end wall 43 and a clip 56 which is held in place by a screw 57.

The conductor 29 forms part of a circuit extending from one terminal of the battery units to a terminal of a flasher type switch 61 which is held in position within the housing 10 by means of a bracket 62 and a bolt and nut assembly 64. A conductor 66 extends from another terminal of the flasher switch to a center contact of a lamp bulb (not shown) within the reflector 32. Another conductor 67 extends from another terminal of the flasher switch 61 to the center contact of a lamp bulb (not shown) within the other reflector 42.

The upper end of the handle adjacent the housing 10 is provided with a plate 71 (Fig. 4) which avoids engagement with the upper end of the wall of the casing 12 and includes a portion which extends inside the cylindrical wall. A bar 72 is mounted for sliding movement in a groove in the plug element 14 and the bar is in engagement with the inner surface of the cylindrical wall of the casing 12. The bar 72 may be moved from the position shown in Fig. 4 by means of a slide member 74 so that the upper end of the bar 72 engages the metal bar 71 carried by the housing 10. A circuit is thus completed from the reflectors 32 and 42 through the end walls of the housing 10 and through the bar 72 to the base end of the group of dry cell battery units. The filament of one lamp is energized and after a short interval the flasher switch 61 operates to deenergize the first lamp bulb and to complete a circuit through the other lamp bulb. The alternate energization of the lamp bulbs thus provides for intermittent flashing of the lamps and this will continue until the slide member 74 is moved downwardly so as to

break engagement of the upper end of the bar 72 with the conductive member 71.

The device thus may be readily manipulated by an individual gripping the handle and the slide member 74 may be actuated by the thumb. The device serves to effectively signal motorists of a controlled cross walk or the like for schools or intersections where an officer is controlling movement of vehicles and pedestrians. The cylindrical shields 41 and 51 serve to shade the lens making the device effective for daytime use.

While the invention has been described with reference to particular structural details and characteristics it is understood that changes may be made in the elements as well as in the overall organization. Such modifications and others may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

What I claim and desire to secure by Letters Patent is:

1. In a portable electrical traffic signalling device, a housing, a flat bottom wall carried by the housing, a layer of insulation along the outer face of said wall, a tubular casing secured in end abutting relationship with said layer, a rigid electric conductor extending through said layer and said bottom wall, means maintaining said conductor from engagement with said bottom wall, end walls closing said housing, a lamp structure including a reflector and a lamp and a lens mounted on each end wall, battery units within said casing, means providing a circuit from the

battery units through said conductor and the reflector and the casing for energizing said lamps, and a cylindrical shield surrounding the periphery of each lens.

2. In an electrical traffic signalling device, a tubular casing, a housing substantially diamond shaped in a transverse section parallel to the axis of said casing, a substantially flat bottom wall carried by the housing, a layer of insulation covering said bottom wall, said tubular casing being in end abutting relationship with said layer, a rigid electric conductor extending through said layer and through said bottom wall, means securing the casing to the bottom wall and maintaining said conductor from engagement with said bottom wall, end walls closing said housing, a lamp structure including a reflector and a lamp mounted on each end wall, battery units within said casing, a flasher type switch mounted within said housing, and means providing a circuit from the battery units through said conductor to said flasher switch and to the lamps for alternately energizing said lamps.

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