This invention relates to a hand signal light, particularly to a device to be retained on the hand of a traffic officer and having a plurality of traffic signal lights for assisting in the direction of traffic.

The use of the red, yellow and green traffic signals that control traffic is so universal that all motorists or drivers are acquainted with these almost universal signals. However, at many times it is necessary for a traffic officer to control traffic and to stand in the intersection of two or more traffic lanes to exercise this control. In dark, rain or fog it is frequently hard for a driver to perceive the traffic officer so that he is frequently in considerable danger. Such traffic officers frequently use a flashlight or other similar signal device to indicate to the motorist the direction in which they are intended to go. However, such flashlight signals are frequently misinterpreted by motorists not only endangering the traffic officer and the motorist, but other motorists who have properly determined what the signal means.

The present invention provides a hand signal which may be carried by an officer directing traffic and which signal device is provided with the customary red, yellow and green signals controllable by the traffic officer to indicate absolutely to the motorist the signal they are supposed to follow.

This is accomplished by means of a waving device having a casing containing a source of energy and the customary red, yellow and green traffic lights mounted in the face of the casing and having control switches operable by the hand of the officer to selectively energize any of the lights so that they may be directed to motorists absolutely according to the intentions of the officer.

It is an object of the invention to provide an improved traffic signal light.

It is a further object of this invention to provide a signal light which may be retained on the hand of an operator.

It is a further object of this invention to provide a signal having colored lights controllable by the hand on which the light is supported.

Other objects and many of the attendant advantages will be apparent from the following detailed description, taken in conjunction with the accompanying drawings, in which:

Figure 1 is a perspective view of the hand signal light according to the invention.

Figure 2 is a longitudinal section through the signal light and showing the mounting of the lights and signal windows therein.

Figure 3 is a transverse section through the signal light showing the arrangement of batteries and connections therein together with the mounting of control switches for the signal lights to be seen through the windows and taken substantially on the plane indicated by the line 3—3 of Figure 2.

Figure 4 is a cross section through the lighting device and taken substantially on the plane indicated by the line 4—4 of Figure 1; and

Figure 5 is schematic wiring diagram of the signal light.

In the exemplary embodiment of the invention a casing 10 is provided with detachable back 12 which may be hinged or otherwise connected to the casing as shown at 14, preferably the casing 10 is provided with an outwardly turned lip 16 and the back 10 is provided with an end portion 18 in which is mounted a detachable connector 20 for locking the back 12 and end 18 onto the casing 10 by means of a screw connection with the loop 16.

Preferably, the back 12 is provided with an insulating gasket 22 which seals against the edge of the casing 10 to provide a substantially watertight connection between the back and the casing. The casing 10 is provided with openings 24, 26 and 28 in which are substantially mounted cylindrical window openings 30, 32 and 34. The window mountings 30 to 34 are connected to the casing 10 by means of a suitable water-tight connection hereinafter shown as a spun around connection 36, 38 and 40 and 42. Preferably, the connection is not only spun over as shown, but is made water-tight by soldering or other sealing means.

Colored windows such as the red window 42, the yellow window 44 and the green window 46 mounted on the window supports 30 to 34 by means of screw bezels 48, 50 and 52. Preferably gaskets 54, 56 and 58 are provided for maintaining the windows in substantially water-tight connection with the window mountings. Lamp supporting brackets 60, 62 and 64 are arranged behind the openings 24, 26 and 28. Screw bases 66, 68 and 70 are mounted on their respective brackets 60, 62 and 64. Screw bases 66 to 70 inclusive are each provided with a lamp 72, 74 or 76 having screw bases fitting the bases 66 to 70 inclusive. The brackets 60 to 64 are firmly grounded on the casing 10 so that the screw base of the lamp 72 to 76 are firmly grounded thereon. Insulators 78, 80 and 82 are mounted on the brackets 60 to 64 respectively and maintained by contact arms 84, 86 and 90 in insulated relation to the brackets 60 to 64. The arms 86 to 90 make contact with the usual insulated terminal on the lamps 72 to 76 inclusive.

Energy for illuminating the lamps 72 to 76 inclusive, is furnished by means of batteries 92 mounted in insulated relation in the casing 10 by means of suitable spring brackets 94, 96, 98 and 100. The brackets 94 to 100 provide suitable terminal connections to the batteries 92 herein shown as the customary dry cells. Brackets 94 to 100 are mounted in insulated relation to the casing 10, suitable connections such as 102 are provided between adjacent brackets so that the battery cells are connected in series relation therein. When terminal brackets such as 94 are permanently and solidly grounded on the casing 10 by means of a connector 104 which is soldered or otherwise connected to any portion of the container such as the bracket 60. Opposite terminals of the battery are provided with a conductor 104 as is connected in parallel relation to each of the contact arms 86 to 90 by means of suitable switch devices 106, 108 and 110. Switches 106 to 110 are mounted within the casing 10 by means of suitable connectors and have actuating members 112, 114 and 116 extending through openings in the side wall of the casing and herein are shown as push members adapted to actuate the switches 106 to 110 in step by step relation by depressing the push members. Switches 106 to 110 are of the type in which the contact members of the switches advances step by step when the actuating member is operated. Obviously any type of switch mechanism suitable for the occasion may be utilized as the switches 106 to 110.

Support member 120 is mounted diagonally on the back of the casing 10 and is designed to fit the hand of
an operator so that when the operator's hand is extended through the support 120 the casing will rest in the palm of the hand and be supported without any effort on the part of the operator. The actuating members 112 to 116 are arranged on the side of the casing so that they fall naturally under one of the digits of the hand holding the casing. In the operation of the device the casing is mounted on the hand of the operator with the actuating members in easy operating relation to the hand on which the device is mounted, the actuating members will be operated to display any of or all the signal lights as may be desired.

It will best be seen that there has been provided a signal light of the type which is readily recognized by motorists and which may be easily and safely carried by an officer directing traffic and utilized to advise motorists of his intentions as to how they should move without unnecessarily endangering himself or the motorists.

A particular example has been shown and described according to the best understanding thereof. However, it will be apparent to those skilled in the art, that many changes and modifications can be made therein without departing from the true spirit of the invention.

Having described the invention, what is claimed as new is:

A signal device comprising, an elongated casing having a plurality of windows, each of a different color, in vertical alignment in the front face thereof, individual means within said casing to illuminate said windows, buttons projecting through one side of said casing for actuating said illuminating means, said buttons being arranged adjacent one another in a group in vertical alignment, and a strap extending generally endwise of the back of the casing and fastened at its ends at spaced points on the back of said casing to permit the hand of a user to be inserted between said strap and said casing back to position the casing against the palm of the hand of the user, the relative positions of said strap and said buttons being such that when the hand of a user is beneath said strap the fingers will assume natural positions over said buttons.

References Cited in the file of this patent

UNITED STATES PATENTS

1,613,203 Shannon Jan. 4, 1927
1,645,487 Harling Oct. 11, 1927
1,780,004 Connelly Oct. 28, 1930
2,072,985 Hofbauer Mar. 9, 1937

FOREIGN PATENTS

190,187 Great Britain Dec. 12, 1922