HUNTER'S SIGNALING DEVICE

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FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6
The present invention relates to a signalling device particularly adapted to the needs of hunters. At dusk in particular, as hunters from the woods, they are in particular danger of being accidentally shot. The present invention provides a simple light unit with steady or flashing light which may by itself be attached to a rifle or shot gun barrel or which may be used with adapters to attach to most sizes of guns or a hunter's hat or clothing. An important feature of the present invention is its switching mechanism which automatically sets the signal in the device of the present invention into operation as soon as it is placed in position.

In the past various lights have been provided attachable to guns or various warning or signalling devices have been used by hunters for their protection against being mistaken by other hunters as animals. Such devices have failed to provide the degree of visibility, warning and immediate switch-on of the present invention so necessary to provide hunters with a warning signal as dusk falls or visibility decreases.

According to the present invention a safety signal light is provided adapted to be attached to a single sized gun or in conjunction with adapters to most sizes of guns or rifles or to a hunter's clothing.

Although such novel feature or features believed to be characteristic of the invention and are pointed out in the claims, the invention and the manner in which it may be carried out, may be further understood by reference to the description following and the accompanying drawings.

FIG. 1 is a side view of an embodiment of the present invention attached to a gun barrel.

FIG. 2 is a front elevation of the embodiment of FIG. 1.

FIG. 3 is a section of FIG. 1 at line 3—3 shown without the gun barrel.

FIG. 4 is an electrical schematic of the present invention.

FIG. 5 is a rifle size adaptor for the signalling device of the present invention.

FIG. 6 is a clothing adaptor for the signalling device of the present invention.

Referring now to the figures in greater detail, where like reference numbers denote like parts in the various figures.

The signal device of the present invention comprises a body 2 including a first battery carrying portion 3 and a second battery carrying portion 4, end caps 5, 6 for the battery carrying portion 3, 4 and an upper recess 7 in the body for the light.

Centrally located in the body 2 between the battery carriers 3, 4 and passage through the body 2 into the recess 7 is a pin 8.

The pin 8 preferably is non-conductive and has a head 9 and a flattened base 10. A spring 11 normally expanded is interposed between the body 2 and the pin head 8 normally maintaining the pin 8 in an extended position.

Within the recess 7 are mounted electrical conductors 12, 13. One of the conductors 12 having some resilient characteristics rests upon the flattened pin base 10. The other conductor 13 in an L shape has an opening 14 adapted to receive a bulb 15.

The bulb 15 may screw into the opening 14 or be otherwise held in the opening 14. The base of the bulb 15 held in the opening 14 is normally spaced away from conductor 12. The bulb 15 may be of the conventional type or may include a flashing arrangement known in the art, so that when the bulb is lit it will automatically turn itself on and off at predetermined intervals.

The one end portion of each battery carrying portion 3, 4 is provided with conductor plates 16 and the end caps 5, 6 are provided with conductor strips 17. Wires 18 lead from the conductor plates 16 to the conductors 12, 13 which are in the recess 7. Batteries 19 are arranged in series circuitry with the bulb 15 as shown in FIG. 4. The batteries 19 in each carrying portion 3, 4 are in series circuitry with the bulb 15 and in parallel circuitry with each other as shown in FIG. 4. The signal device of the present invention may operate with the batteries from either or both battery carrying portions 3, 4. The series circuit in each carrying portion 3, 4 is completed through the conductor strip 17.

The recess 7 is surrounded by a lip 20 which is adapted to receive and hold the dome 21. The dome 21 has a recess 22 which locks with the lip 20.

The gun adapter 23 shown in FIG. 5 provides a mount for the body 2 for guns of narrow diameter barrels. The adapter has a slit 24 to provide resilience for snapping the adapter 24 over a gun barrel. The slit 24 must be of a narrower width than the head 9 of the pin 8.

A clothing adapter 25 as shown in FIG. 6 may be attached to a hat or shoulder and has a portion 26 of the diameter of a gun barrel.

The inner sides of the battery carrying portions 3, 4 have indentations 27 to grasp the side of a gun barrel and maintain the body 2 and pin 8 in a desired position.

In operation the signalling device 1 is snapped onto a gun barrel or adapter. Once in this position the pin 8 is moved upward with the loss of the pin 8 from the contact of the base of the bulb 15, completing a circuit and lighting the bulb 15. Once the signaling device is removed the spring 11 forces the pin 8 away from the conductor 12. The conductor 12 having some resilience resumes its former position and the light is turned off.

It can then be seen that the signalling device 1 of the present invention once placed on a gun or clothing, provides an outstanding signal light, steady or flashing, to protect the user. The separate battery portions 3, 4 provide protection against the failure of one battery set.

The dome 21 is preferably of transparent or translucent plastic and may be colored, especially amber or red. The dome 21 has sufficient resilience to snap over the lip 20 for attachment and/or removal.

When the signalling device 1 is used with the adapter 25, the hump position 28 is of sufficient height to force the pin 8 against the conductor 12 to complete a circuit.

The flattened portion 10 of the pin 8 serves to press the pin 8 firmly against the conductor 12 and also prevents the pin 8 from falling out under the pressure from the spring 11.

To avoid possible short circuiting, it is preferable that the pin 8 be of plastic. A metal pin might short circuit on a metal gun barrel and spoil the utility of the signalling device 1 or the effectiveness of the pin 8 as a switch.

The terms and expressions which are employed are used as terms of description, it is recognized, though, that various modifications are possible within the scope of the invention claimed.

Having thus described certain forms of the invention in some detail, which is claimed is:

1. A signalling device comprising an integral body including juxtaposed side portions, said side portions including opposite indentations adapted to receive and hold an elongated structure, at least one said side portion having at least one cavity adapted to receive a battery, said cavity adapted to retain a battery within, an upper recess in said
body, said upper recess including; a first conductor adapted to receive an electric bulb and an electrical conductor spaced apart from said bulb receiving conductor, a bulb, a pin passing through said body and into said upper-recess adapted to act as a switch, said pin disposed between said first and second side portions, said pin including a head portion; a flattened end portion inside said recess, a spring about said pin under said body interposed between said body and the head of said pin, said pin adapted to impinge upon said spaced apart electrical conductors and cause it to contact said bulb held by said bulb receiving conductor when said body is mounted on an elongated structure, and electrical conducting means adapted to connect said bulb receiving means with said battery and said spaced-apart conductor.

2. The combination of the signalling device of claim 1 and a size adapter for a hunter's signalling light comprising a resilient U-shaped body adapted to fit about the barrel of a gun, two lengthwise protrusions on either side of said adapter, said protrusions adapted to engage indentations in a hunter's signalling device, and an upper hump adapted to compress the switch pin of a hunter's signalling device.

3. The combination of the signalling device of claim 1 and an actuating mount for a hunter's signalling device comprising an elongated structure of the approximate diameter of a gun barrel and adapted to receive a hunter's signalling device, mounting means, said mounting means mounting said elongated structure on a base, and said base adapted to be affixed to an article of clothing.

4. A signalling device comprising an integral body including juxtaposed side portions, said side portions including opposite indentations adapted to receive and hold an elongated structure, at least one said side portion having at least one cavity adapted to receive a battery, said cavity adapted to retain a battery within an upper recess in said body, said upper recess including; a first conductor adapted to receive an electric bulb and an electrical conductor spaced apart from said bulb receiving conductor, a bulb including means adapted to cause it to flash on and off, a pin passing through said body and into said upper recess adapted to act as a switch, said pin disposed between said first and second side portions, said pin including a head portion; a flattened end portion inside said recess, a spring about said pin under said body interposed between said body and the head of said pin, said pin adapted to impinge upon said spaced apart electrical conductors and cause it to contact said bulb held by said bulb receiving conductor when said body is mounted on an elongated structure, and electrical conducting means adapted to connect said bulb receiving means with said battery and said spaced-apart conductor.

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