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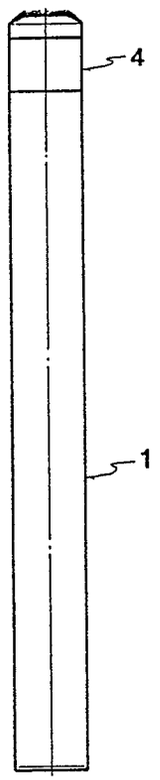
(54) Flashing-light warning device for pedestrians.

(57) Flashing-light device for pedestrians consisting of a cylindrical casing (1), having a terminal transparent part (4), which can be installed on the tip of an umbrella or walking stick of any type to generate flashing-light signals visible in the dark.

FIG 1



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FLASHING-LIGHT WARNING DEVICE FOR PEDESTRIANS

This invention relates to a flashing-light warning device for pedestrians. In particular it relates to a device which can be installed on the tip of an umbrella or walking stick of any type to generate flashing-light signals visible in the dark.

It is apparent that the device according to the invention can also be used directly without being installed on any support, by holding it in the hand while walking, as in the case of any pocket lamp, or can be used as an emergency warning lamp for automobiles during stoppage resulting from a fault in the electrical system. For these latter uses the device will be of a geometrical shape suitable for example for holding in the hand or for fixing to ones clothes, or for other applications. For example it can be in the shape of a pen or the like.

The continuous increase in road traffic brings with it an increase in the number of accidents to pedestrians walking along the road, especially if visibility is poor.

Many devices for increasing pedestrian safety have been proposed, such as the use of adhesive strips of reflecting material (for application to clothes) which increase the visibility of the pedestrian when illuminated by the headlamps of the vehicle which overtakes or crosses in front of him, and the use of small battery-operated torches to be carried and lit when using roads which are dark or poorly illuminated.

Both these types of device, although increasing the safety of the user, have the serious defect of representing an accessory which is not normally carried by a person and therefore not immediately available when required.

It can therefore be said that although such devices are indeed widely used by persons working on roads or motorways for their maintenance or inspection, they are almost never used by the normal pedestrian who walks on the road only occasionally and generally over only short distances.

In the case of battery-operated torches there is the further drawback that the battery lasts only a short time and therefore may not be effective when required.

The device according to the invention satisfactorily obviates the aforesaid drawbacks and provides greater safety for a pedestrian walking on a road in the dark.

The flashing light emitted by the device according to the invention is clearly visible even at a considerable distance and its characteristic of being able to be mounted on the tip of an umbrella makes it particularly useful under the worst possible visibility conditions (darkness and rain).

The device of the invention consists of a cylindrical casing of metal or rigid or resilient plastics material containing one or more feed batteries, a transistorized oscillator circuit, a light source and a microswitch for switching on the device.

The transistorized oscillator circuit ensures a constant supply voltage to the light source even if the batteries are nearly discharged, and enables the light source to be powered intermittently, thus limiting the power consumption and prolonging the life of the feed batteries.

The flashing state of the light emitted by the device according to the invention makes it more visible than a continuous light.

In the preferred embodiments the flashing of the light is regulated such that the light source remains lit for a time which is from two to four times less than the time for which it remains unlit.

The light source is a small lamp or an LED, and is located in one of the two end parts of said cylindrical casing, said part being suitably transparent.

According to a typical embodiment of the invention, the transparent end part of the cylindrical casing consists of a separate piece which is fixed by pressing or screwing to the remaining cylindrical part of the casing, in the manner of fountain pen caps.

That end part of the cylinder opposit to that in which the light source is situated consists of an empty part of frusto-conical shape internally, so that it can be forced over the tip of any type of commercially available umbrella or walking stick.

The preferred materials of construction of the cylindrical casing of the device are iron, aluminium preferably of anodised type, olefin, acetal, acrylic, methacrylic or vinyl polymers of copolymers, polycarbonates, polyesters, polyamides and any other type of engineering polymer.

If the chosen material is opaque, as in the case of metals, the end part of the cylindrical casing is constructed of a transparent material.

In its preferred embodiments, the dimensions of the device according to the invention are between 4 and 20 cm in length and between 5 and 30 mm in diameter.

The small dimensions of the device according to the invention and its low weight mean that it can be carried in the pocket, and is therefore particularly useful.

According to a further embodiment of the invention, the device is directly incorporated to form the tip of the umbrella or walking stick during the manufacture of these latter.

One embodiment of the device according to

the invention is described hereinafter with reference to the accompanying drawing in which:

Figure 1 is a perspective view of the flashing-light warning device;

Figure 2 shows the basic components of said device.

The cylindrical casing 1 of the device consists of a cylindrical tube of ABS with a diameter of 15 mm and a length of 15 cm containing in its interior a red-coloured LED 2 connected to two series-connected 1.5 volt pen-torch batteries (5) also situated in the cylinder 1.

An oscillator circuit 3 is connected between the batteries 5 and the LED 2 and when activated by a microswitch (not shown in the figure) located in the lower end of the cylinder 1 it powers the LED intermittently so that it is lit for 0.22 seconds and unlit for 0.44 seconds repeatedly.

The end part of the cylinder 1 consists of a transparent methacrylate part 4 which is pressed onto the cylindrical casing 1.

Claims

1. A flashing-light warning device for pedestrians, consisting of a cylindrical casing (1) of metal or rigid and resilient plastics material containing one or more feed batteries (5), a transistorized oscillator circuit (3),a light source (2) and a microswitch for switching on the device.

2. A flashing-light warning device for pedestrians as claimed in claim 1, characterised in that the light source (2) is a small lamp or an LED is situated in one of the two end parts of said cylindrical casing (1), said part (4) being suitably transparent.

3. A flashing-light warning device for pedestrians as claimed in claim 1, characterised in that the end part of the cylinder opposite to that in which the light source is situated is of frusto-conical shape internally, so that it can be pressed onto any type of umbrella or walking stick tip.

4. A flashing-light warning device for pedestrians as claimed in claim 1, characterised in that the cylindrical casing (1) is consstructed of iron, aluminium of preferably anodised type, olefin, acetal, acrylic, methacrylic or vinyl polymers and/or copolymers, polyester, polyamide or engineering polymers.

5. A flashing-light warning device for pedestrians as claimed in claim 1, characterised in that the flashing of the light is regulated such that the light source (2) remains lit for a time of between two and four times less than the time for which it remains unlit.

6. A flashing-light warning device for pedestrians as claimed in claim 1, having dimensions of between 4 and 20 cm in length and between 5 and 30 mm in diameter.

FIG 1

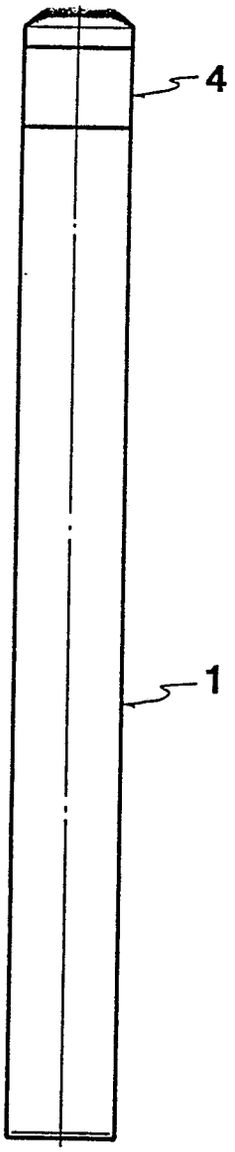

FIG 2