June 24, 1941. A. L. CAMPBELL 2,246,836

ILLUMINATED STICK OF UMBRELLA

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Fig. 3.

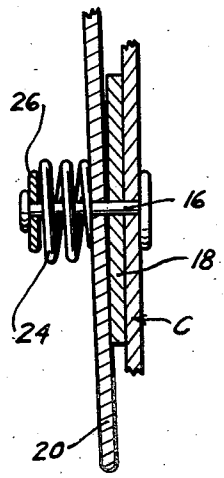
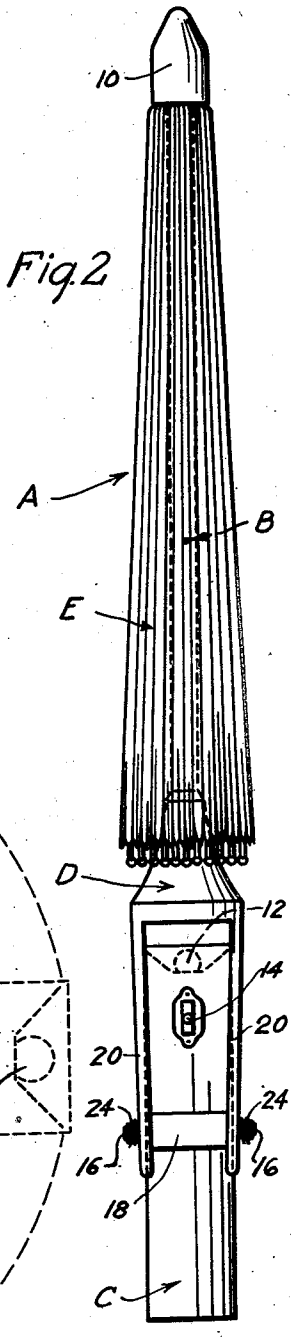


Fig. 1.

Fig. 2.



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ILLUMINATED STICK OF UMBRELLA

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2 Claims. (Cl. 240—6.42)

My invention relates to an umbrella and relates particularly to a visual signalling device at both the handle and tip of the umbrella stick.

The purpose of the invention is to provide a signal or guide, visible in the dark, on umbrellas whereby the visual guide or signal may be manually controlled, and wherein the guide serves as a warning signal to drivers of vehicles, such as automobiles, street cars, and the like, in order to protect the user from the danger of being struck by the vehicle. A portion of the unit also may be used as a flash-light to light the ground over which a person travels.

It is an object of my invention to provide an umbrella having a visual portion at both the tip of the umbrella and also at the handle of the umbrella.

Another object of my invention is to provide an umbrella having a single source of light for both the handle and tip of the umbrella, and which source of light may be adjustably positioned.

Another object of my invention is to provide an umbrella having a visual signaling unit whereby the size and/or proportions of the umbrella will not be materially altered.

Another object of my invention is to provide a flashlight casing as a handle for an umbrella.

Other objects of my invention are to provide an improved device of the character described, that is easily and economically produced, which is sturdy in construction and which is highly efficient in operation.

With the above and related objects in view, my invention consists in the details of construction and combination of parts, as will be more fully understood from the following description, when read in conjunction with the accompanying drawing, in which:

Fig. 1 is a fragmentary front elevational view of an umbrella embodying my invention.

Fig. 2 is a side elevational view of an umbrella embodying my invention.

Fig. 3 is a fragmentary sectional view taken on the line 3—3 of Fig. 1.

Referring now in detail to the drawing, I show an umbrella, generally designated as A, which includes a staff or stick, generally designated as B, made of a methyl methacrylate resin or acrylic acid product, also sold under the trade-mark "Lucite" wherein rays of light can be transmitted through the stick. The stick B has a tip 10 which may have a series of threads therein in order to screw upon the end of the staff B which is complementarily threaded. The outer end 10 of the staff enables light rays to be made visible because of the transmission of light rays through the methacrylate resin staff B and into the tip 10. The light source is an electric flashlight battery, generally designated as C, within a casing of the customary flashlight construction, which may be metallic or of an electric insulation compound, and where it has an electric light bulb 12 at one end thereon.

A push button 14 actuates the light to on-or-off position. The flashlight is rotatably mounted on two pins or bearings 16, each of which passes through the flashlight casing C, a flashlight holding and encircling band 18, and through one arm 20, the latter partially encircles the body of the flashlight C. Each of the pins 16 pass through each of the flexible spaced arms 20, 20 that are joined by a stick attaching member D, the latter has a bore and internal threads 22 whereby it may be threaded upon the other end of the stick B.

Each of the flexible arms 20 is of arcuate shape to complement the flashlight casing C whereby the combination serves as a handle. Each arm 20 is held close to the casing C by virtue of an expansible spring 24 located between one end of rivet 16 and the arm 20; conversely the arms 20, 20 spread against the tension of each of the springs 24 when the flashlight C is turned from its vertical position to the horizontal position as shown in Fig. 1.

Each spring 24 abuts a washer or casing which may partially or completely cover the spring so that it harmonizes with the handle and where there is no danger of pinching, or injuring the hand or fingers of the person grasping the umbrella.

The rays of light from the bulb 12 impinges upon the end 25 of the staff B and passes therethrough until it enters the tip 10 when the light rays can be seen from the methyl methacrylate plastic tip 10.

The flashlight bulb is spaced a distance from the end 25 of the staff B so that the rays of light will be seen on the handle end of the staff B. The flashlight may be revolved about the pins 16, into a downward position so that a party can use the direct rays of the light from the bulb 12 if they should desire to use the flashlight rays direct. The flashlight C contains the customary provisions for removing the dry cells and provisions for removing the bulb for replacement purposes.

It should be apparent that when the umbrella is in use with the covering, generally designated

as E, open, there is little danger of the flashlight being rendered inoperative by water penetrating therein; there is no danger of the tip of the staff being short-circuited, and when a person uses the umbrella in a raised position, the tip 10 will stand out because at night it is visible, or when the party is walking along the road the umbrella may be seen from a vehicle; the device also may be used as a signaling device to indicate either distress or that assistance is wanted.

It is to be noted that the staff and the various elements outside of the cover of the umbrella are made of a plastic non-breakable, flexible, sturdy, easily molded and machined product, which will not readily collect dirt and which need not be painted, but which may, for different purposes contain a dye to produce different colored handle, tip and stick.

Although my invention has been described in considerable detail, such description is intended as illustrative rather than limiting, since the invention may be variously embodied, and the scope of the invention is to be determined as claimed.

I claim as my invention:

1. An illuminated umbrella comprising a stick of methyl methacrylate acid resin product for transmitting light rays, a tip of molded methyl methacrylate acid resin, a pair of spaced arms of methyl methacrylate acid resin, each arm having a concave inner surface, an illuminating unit positioned between said spaced arms whereby said illuminating unit is rotatable to any position, a band fastened about said illuminating unit, bearings attached to said band and passing through said spaced arms, said concave inner surfaces of said spaced arms grasping said illuminating unit, and said illuminating unit being rotatable to any position on said bearings attached to said band, said illuminating unit being adapted to have its rays of light pass through the methacrylate acid resin product and tip for the purpose of conveying the rays of light therein.

2. An illuminated umbrella comprising a stick of methyl methacrylate acid resin product for transmitting light rays, a tip of molded methyl methacrylate acid resin, a pair of spaced arms of methyl methacrylate acid resin, each arm having a concave inner surface, an illuminating unit positioned between said spaced arms whereby said illuminating unit is rotatable to any position, a band fastened about said illuminating unit, bearings attached to said band and passing through said spaced arms, said concave inner surfaces of said spaced arms grasping said illuminating unit, and said illuminating unit being rotatable to any position on said bearings attached to said band, said illuminating unit being adapted to have its rays of light pass through the methacrylate acid resin product and tip for the purpose of conveying the rays of light therein, said bearings overhanging the outside surface of the spaced arms, a helical spring surrounding each of the overhanging bearings, one end of each spring pressing against each arm and against the outside end of the bearing whereby the spaced arms will be resiliently pressed against the illuminating unit.

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