Feb. 7, 1956 M. J. FUNK 2,734,124

ILLUMINATED UMBRELLA HANDLE

Filed Oct. 11, 1952

Fig. 2

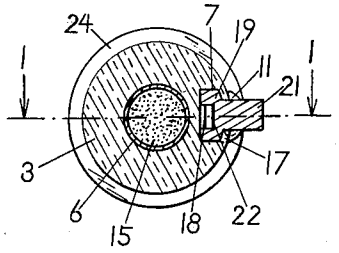


Fig. 4

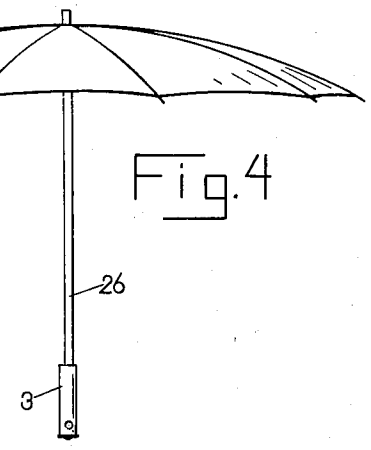


Fig. 1

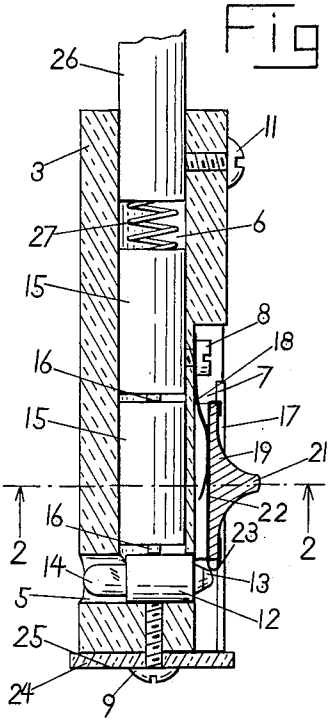


Fig. 5

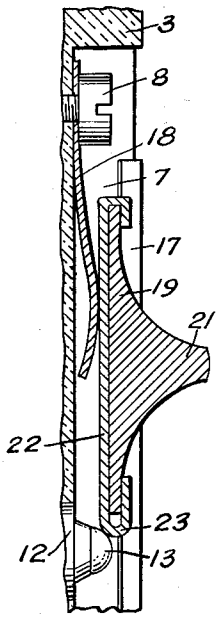
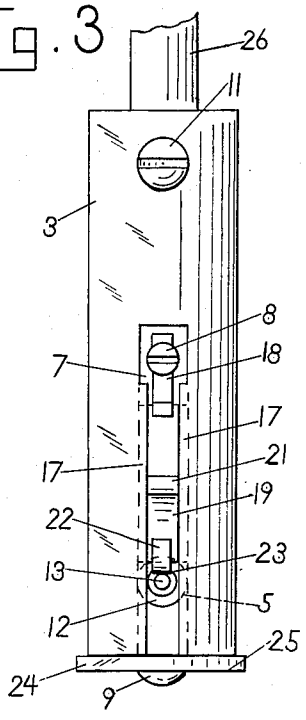


Fig. 3



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ILLUMINATED UMBRELLA HANDLE

Marlow J. Funk, New York, N. Y.

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1 Claim. (Cl. 240—6.42)

My invention relates to umbrella handles, and one of its objects is to incorporate a flashlight in an umbrella handle in such a manner that a person needs only one hand in order to protect himself against rain, snow or wind and to carry a flashlight whereby the other hand is free for other functions, for example, for carrying packages or for opening doors.

Other objects are to throw a strong light beam to the front and simultaneously to illuminate the handle itself, thereby to enable a person to find his way and to avoid obstacles in the dark and, at the same time, to make visible his position and movement from all sides, and thereby to protect this person from being overlooked and hit by others, for example, by auto drivers.

Further objects are to provide an illuminating and illuminated handle, that can be easily affixed to any of several umbrellas or can be used in detached condition, to make possible a quick and easy conversion from attached to detached condition of the handle, and to use an umbrella handle in detached condition as a self-illuminating protective sign.

Still other objects are to provide an umbrella handle with reliable and convenient switching means for the control of a flashlight incorporated in the handle, to make possible the switching operation by a finger of the hand holding the umbrella, thereby to leave free the other hand for other purposes at all times, and to arrange an electric bulb in a well protected position.

Still further objects are to provide a flashlight incorporated in an umbrella handle with strong and long-lasting batteries, and to arrange these batteries in the handle so that they can be easily replaced and can be easily electrically connected with the bulb circuit.

Still other objects are to achieve all these results with an umbrella handle of usual and convenient outer shape and size, and to provide an illuminating and illuminated umbrella handle that can be inexpensively made and can be easily assembled and maintained in good working condition.

Still other objects and advantages will appear from the following description of an exemplifying embodiment of my invention, from the appended claim and from the accompanying drawing in which:

Fig. 1 shows a partly sectional side view of an illustrative embodiment of my invention, the sectionally represented parts being cut along the line 1—1 of Fig. 2, the lower end of an umbrella stem being shown broken off.

Fig. 2 shows a cross-section taken along the line 2—2 in Fig. 1.

Fig. 3 shows a rear view of the embodiment shown in Figs. 1 and 2.

Fig. 4 shows a front view of an umbrella provided with a handle according to my invention, represented on a reduced scale.

Fig. 5 shows a broken off part of Fig. 1, represented on a larger scale.

Referring to the drawing, numeral 3 indicates the main body of the handle. This body has an elongated, preferably cylindrical shape of which the longitudinal direction is vertical when an umbrella 4 is carried in normal position of use. The body 3 has a bore or hole 5 which, in the mentioned position of the umbrella, extends substantially horizontally to the front. Another, preferably wider, bore or channel 6 extends from a median portion of the bore 5 in the longitudinal direction of the body upward as far as the upper end of the body. A groove 7 extends parallel to the bore 6 from the rear end of the bore 5 in the rear side of the body 3. The body is further provided with threaded bores for set screws 8, 9 and 11.

The body 3 is made of translucent material, preferably of translucent plastic. This material surrounds the bores 5 and 6 which together form a substantially T-shaped inner space. The described arrangement of these bores is an important feature of my invention and makes possible the incorporation of a flashlight in the handle in a manner which achieves the objects of the invention with a maximum of reliability and simplicity.

This flashlight comprises an electric bulb, batteries and electrically connecting means including switching means. The bulb has a medium portion 12 which fits the bore 5 slidably and has a metallic circumference forming a lateral pole of the bulb. The other pole 13 is central with respect to the axis of the bulb and forms its rear end. The front portion 14 of the bulb radiates in all directions, except where radiation is obstructed by the median portion 12. This bulb is inserted in the bore 5 and extends across the lower end of the bore 6. The upper side of its median portion 12 or of its lateral pole faces the bore 6 where the latter bore opens into the bore 5. The front portion 14 is slightly spaced from the front end of the bore 5. The rear end or the central pole 13 projects into the groove 7.

One or several, for example two, batteries 15 are inserted in the bore 6 and are arranged in series, the central pole 16 of the upper battery contacting a metallic upper surface of the lower battery which surface forms an extension of the lateral pole formed by the cylindrical circumference of the battery. The central pole 16 of the lower battery contacts the lateral pole of the bulb. The screw 8 presses against the upper battery 15 and thereby secures the position of the batteries.

The groove 7 extends from the rear end of the bore 5 up a little beyond the screw 8. This groove may extend down as far as the lower end of the body 3 for the sake of easier manufacture. The outer or rear part of the groove 7 is narrowed by lateral ledges 17 forming parts of the body 7 whereby the groove has a substantially T-shaped horizontal cross-section. The ledges 17 may end under and at a short distance from the screw 8 whereby this screw can be easily turned with a screw driver.

A flat spring or metal strip 18 has an end secured under the head of the screw 8, extends in and along the groove 7 downward and terminates at a distance from the bore 5.

A switch member 19 has a main body which fits the groove 7 slidably and has a portion 21 projecting rearward beyond the body 7 and shaped for convenient operation by the tip of a finger. The member 19 is provided with a metallic surface by a metal strip 22 which is affixed to its main body, extends along its inner side and projects slightly beyond its lower end at 23. The member 19 is vertically slidable between the shown position in which the strip 22 contacts the pole 13 of the bulb and a higher position in which further upward movement is stopped by the screw 8. In all positions of the member 19, its metallic surface or the strip 22 contacts the strip 18 slid-

ably. In its lowermost position, the member **19** closes the circuit operating the bulb.

While the bulb and the batteries may be of usual standard structure, their arrangement in the described circuit differs from the arrangement usual in flashlight circuits. In my arrangement, a central battery pole contacts a lateral bulb pole, and the switch connects a lateral battery pole with the central bulb pole. This particular arrangement has important advantages. It makes possible the use of one set screw **8** for fixing the position of the batteries and for connecting the same electrically with the switch. Further, this arrangement makes possible the sliding of the switch member **19** along the rear side of the handle into contact with the bulb. Hence, the described circuit arrangement requires a minimum of conducting parts, is handy and of utmost simplicity and occupies little space.

The rays emitted from the bulb portion **14** through the front opening of the bore **5** illuminate an area in front of the wearer of the umbrella. The rays emitted in other directions enter the translucent material of the body **3** and illuminate the entire extent of this body whereby the body is clearly visible in the dark from all sides. The warning or protective effect of the illuminated body may be accentuated by red color of the translucent material. The illumination of the body may be increased by a mirror **24** positioned across the lower end of the body **3**. This mirror has a reflecting surface **25** facing the body **3** and returning those rays to the body which otherwise would be emitted downward without achieving a useful purpose.

The mirror **24** may be affixed to the body **3** by a screw **9** which passes through a central bore of the mirror and reaches into pressing contact with the bulb whereby the screw **9** simultaneously serves to hold the mirror and to fix the position of the bulb.

The umbrella **4** has a stem or shaft **26** which is fittingly inserted in the upper end of the bore **6**. The set screw **11** secures the stem **26** to the body **3**. Preferably, the screw **11** has a head provided with a slot which is sufficiently wide and fittingly shaped for the insertion of a coin, for example of a cent piece. This enables the wearer to connect and to disconnect the handle and umbrella whenever desired without a screw driver.

A coiled spring **27** may be positioned in the bore **6** between the stem **26** and the batteries **15**. This spring urges the batteries into close contact with each other

and with the bulb. The screw **8** may be tightened after the spring **27** has enforced this close contact.

I desire it understood that my invention is not confined to the particular embodiment shown and described, the same being merely illustrative, and that my invention may be carried out in other ways within the scope of the appended claim without departing from the spirit of my invention as it is obvious that the particular embodiment shown and described is only one of the many that may be employed to attain the objects of my invention.

Having described the nature of my invention, what I claim and desire to protect by Letters Patent is:

An umbrella handle comprising an elongated body made of translucent material, having a bore crossing the longitudinal direction of said body and having another bore extending from a median portion of said first bore in said longitudinal direction; an electric bulb inserted in said first bore having a lateral pole with a portion facing said other bore and having a central portion forming the rear end of said bulb; a battery inserted in said other bore having a central pole contacting said lateral pole of said bulb and having a lateral pole; switching means electrically connecting said central pole of said bulb with said lateral pole of said battery; a mirror positioned across an end of said body and having a reflecting surface facing the same, and a screw passing through said mirror and through a threaded bore of said body and pressingly contacting said bulb whereby said screw fixes the positions both of said mirror and of said bulb.

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