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2,271,190

CANE, WALKING STICK, OR THE LIKE

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Fig.1.

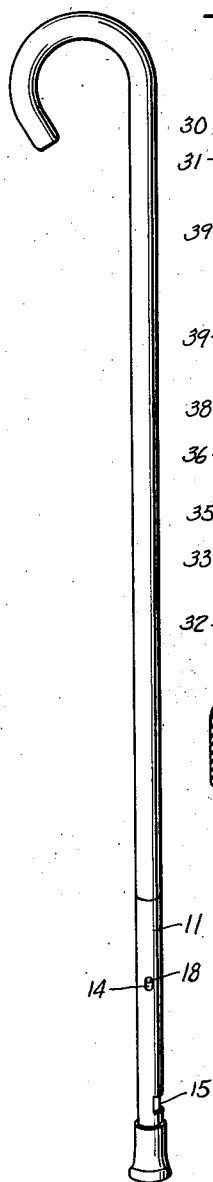


Fig.2.

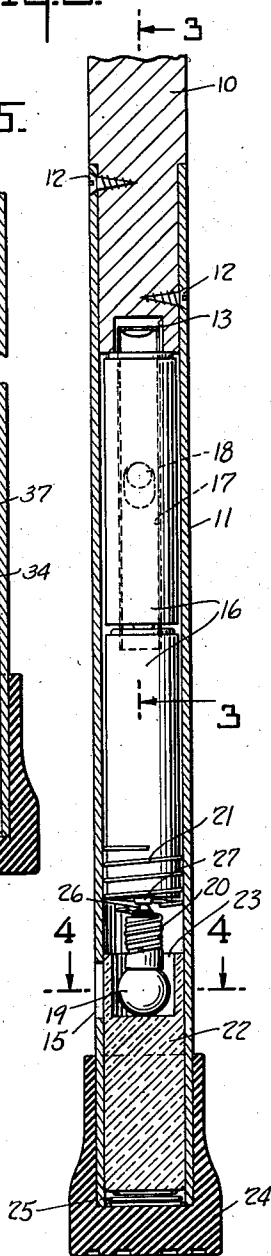


Fig.3.

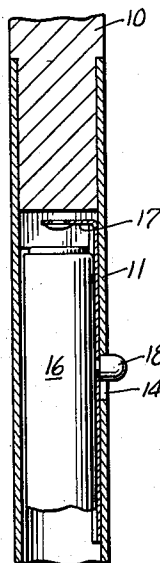
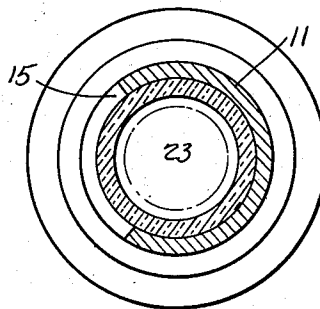


Fig.4.



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CANE, WALKING STICK, OR THE LIKE

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8 Claims. (Cl. 240—6.42)

The present invention relates to canes, walking sticks and the like, and is more particularly directed toward the provision of such devices with electric lighting means whereby the user can illuminate the region in which the tip of the cane is to be placed.

The present invention contemplates an electrically lighted cane which has an opening near the bottom of the cane and wherein this opening is closed by a translucent member behind which is an electric lamp. The lamp is lighted from a battery carried by the cane and controlled by a suitable switch.

According to the present invention the bulb and transparent member are downwardly removable so that a new bulb may be substituted. These parts are held in place by the rubber tip or cup ordinarily used with canes and walking sticks.

The accompanying drawing shows, for purposes of illustrating the present invention, two of the many embodiments in which the invention may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In the drawing:

Figure 1 is a side elevational view of a cane;

Figure 2 is a vertical sectional view through the lower end of the cane at an enlarged scale;

Figure 3 is a fragmentary sectional view on the line 3—3 of Figure 2;

Figure 4 is a cross sectional view on the line 4—4 of Figure 2; and

Figure 5 is a vertical sectional view illustrating a modified form of construction.

The cane or walking stick has a shaft 10 which carries a metal tube 11 secured at the lower end by screws indicated at 12. The extreme lower end of the shaft is notched, as indicated at 13, Figure 2. The tube 11 has an elongated slot 14 and has a window opening 15, the latter being placed near the lower end of the tube. A battery of any suitable form is insertible into the tube from the lower end. A two cell battery is here indicated at 16. The switch for controlling the battery circuit is in the form of a slider 17 having a push button 18 which projects out through the opening 14. It is housed in the cut out 13 in the lower end of the stick and overlies the battery as will be obvious.

A lamp bulb 19 is secured to the battery by a wire coil having a lower portion 20 adapted to act as threads for the lamp bulb and an upper larger diameter portion 21 adapted to receive the paper tubing around the usual dry cell. It con-

tacts the metal tube and thus connects the lamp base with the metal tube. The parts are so dimensioned that the bulb 19 is opposite the opening 15 when the battery is pushed all the way in the tube. A transparent plug 22 is inserted into the lower end of the tube and this plug has a recess 23 to accommodate the bulb. The wall of the recess forms a transparent closure for the opening 15. A rubber cup like tip 24 is placed on the outside of the tube 11, and this carries a spring 25 adapted to push the plug 22 upwardly thereby holding the center contact 26 of the lamp bulb against the center contact 27 of the battery.

In the arrangement shown in Figure 5 the battery 30 is placed in the upper part of the shaft and provided with a suitable switch to connect the battery to the tube 31. The lower end of the tube 31 is made the same as the lower end of the tube 11, but here the plug is made in two parts 32 and 33, the part 32 being merely a filler and can be made of cheaper material than the transparent material shown in Figure 2. The upper part 33 of the plug has a recess 34 to receive the lamp bulb 35 and here the coiled wire member 36 fits the shell contact of the socket and bears against the inside of the tube 31. The center contact 37 of the socket bears at a fixed contact 38 connected by an axially disposed wire 39 with the center terminal of the battery.

It is obvious that the invention may be embodied in many forms and constructions within the scope of the claims and I wish it to be understood that the particular forms shown are but a few of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. In an electrically lighted cane, walking stick or the like, a shaft, a tubular member at the lower end of the shaft of uniform diameter to receive a dry battery and having a side opening spaced from its lower end, a battery above the side opening, a control switch cooperable with the upper battery terminal, a lamp opposite the side opening, and having its center contact opposite the lower terminal of the battery, and a transparent plug inserted into the tube and having a recess to receive the lamp and of a depth to hold the lamp contact against the battery terminal, the side wall of the recess closing the opening to protect the lamp and permit passage of light.

2. In an electrically lighted cane, walking stick or the like, a shaft, a tubular member at the lower end of the shaft of uniform diameter to

receive a dry battery, and having a side opening spaced from its lower end, a battery above the side opening, a control switch cooperable with the upper battery terminal, a lamp opposite the side opening, and having its center contact opposite the lower terminal of the battery, a transparent plug inserted into the tube and having a recess to receive the lamp and of a depth to hold the lamp contact against the battery terminal, the side wall of the recess closing the opening to protect the lamp and permit passage of light, and a friction cap about the lower end of the tube for closing the tube and retaining the plug in the tube.

3. A cane such as claimed in claim 2, having a spring between the cap and plug to urge the plug upwardly against the lamp and the central lamp terminal against the lower terminal of the battery.

4. A cane, walking stick or the like, having a downwardly opening metal tube at the lower end, a dry battery insertible into the tube from the lower end, a lamp insertible into the tube below the dry battery and having one terminal connected to the lower battery terminal and the other electrically connected with the tube, a switch for connecting the tube to the upper battery terminal, the tube having an opening opposite the lamp, and a light transmitting element closing the opening to protect the lamp, and engaging the bulb of the lamp to hold said terminal against the lower battery terminal.

5. A cane, walking stick or the like, having a downwardly opening metal tube at the lower end, a dry battery insertible into the tube from the lower end, a lamp insertible into the tube below the dry battery and having one terminal connected to the lower battery terminal and the other electrically connected with the tube, a switch for connecting the tube to the upper battery terminal, the tube having an opening opposite the bulb of the lamp, a transparent plug slidably received in the tube and having a recess of limited depth to receive the lamp and hold the lamp terminal against the lower battery terminal, the plug forming a transparent closure for the opening, and a cup shaped cap about the bottom of the tube and holding the plug in place.

6. A cane such as claimed in claim 4, having a coiled spring between the bottom of the plug and the top wall of the bottom of the cup shaped tip for holding the plug against the lamp bulb.

7. A cane, walking stick or the like, having a shaft, a metal tube carried by the lower end of the shaft, a battery received in the tube and insulated from the tube, a lamp bulb, a coil of wire having a small diameter end into which the lamp is threaded and a large chamber end about the casing of the lower end of the battery and adapted to make contact with the inside of the tube, a switch slidably received in the tube and movable into or out of contact with the upper end of the battery, the tube having a window opening opposite the lamp when the upper end of the battery is held against the lower end of the shaft, a transparent plug having a recess to receive the lamp and close the opening in the tube, a cap about the bottom of the tube, and a spring between the cap and the plug and acting to push the plug, lamp and battery upwardly.

8. In an electrically lighted cane, walking stick or the like, a shaft, a metallic tube at the lower end of the shaft of uniform diameter to receive a dry battery and having a side opening spaced from its lower end, a battery above the side opening and insulated from the tube, a lamp having its center contact bearing on one of the battery terminals and its shell contact connected with the tube, a lamp control switch between the tube and the other battery terminal, a member inserted into the lower end of the tube and bearing on the lamp, a transparent element between the lamp and opening to protect the lamp and permit passage of light, a removable, cup shaped friction tip frictionally engaging the lower end of the tube, and a spring urging the member upwardly.

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