Nov. 10, 1959 M. DULBERG 2,912,567

SWIVEL TYPE FLASHLIGHT WITH SAFETY MEANS

Filed June 24, 1957

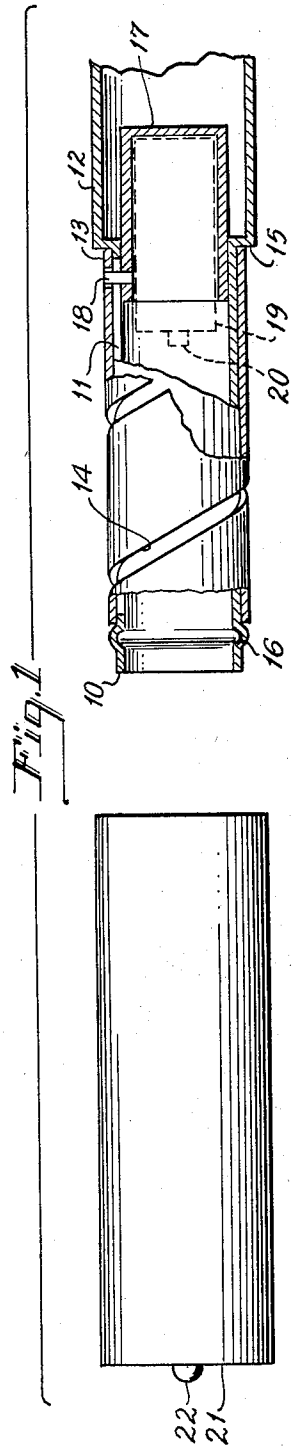



Fig. 1

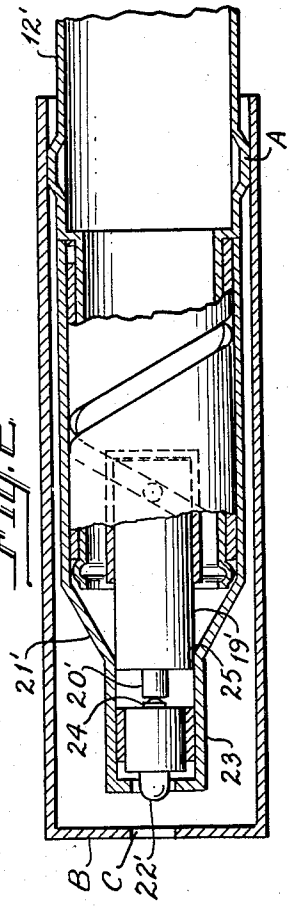



Fig. 2

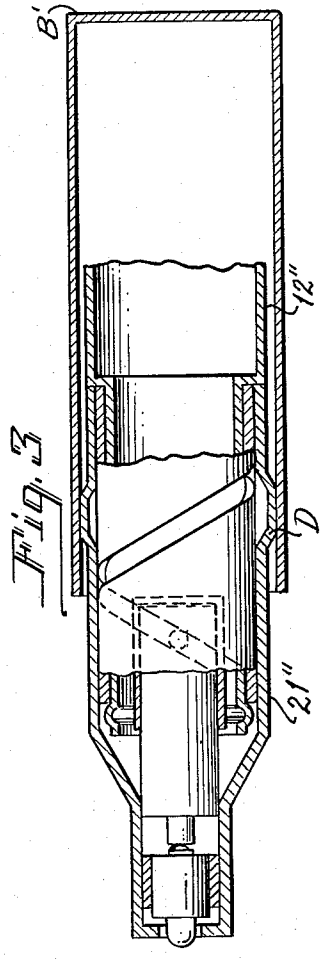



Fig. 3

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# SWIVEL TYPE FLASHLIGHT WITH SAFETY MEANS

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5 Claims. (Cl. 240—10.68)

This invention relates to flashlights employing a propel-repel carrier assembly of the swivel type. This application is a continuation-in-part of my co-pending application Serial No. 318,679, filed November 4, 1952, now Patent No. 2,797,309, and which latter application was co-pending with my application Serial No. 50,999, filed September 24, 1948 and now Letters Patent No. 2,695,028, granted November 23, 1954.

The general object of the present invention is to provide a swivel type flashlight with safety means for safeguarding against accidental lighting or darkening of the light bulb.

Specifically, it is the object of the present invention to provide a swivel type flashlight with safety means, generally employed in the lipstick container field to safeguard against lipstick smudging against the inner surface of a removable cover cap, to safeguard against accidental lighting or darkening of the light bulb.

Other objects and advantages of the present invention will be readily apparent in the course of the following detailed description taken in connection with the accompanying drawing which illustrates, by way of example, preferred embodiments of the invention and wherein—

Fig. 1 is a longitudinal sectional and exploded view of the propel-repel carrier assembly removed from the outer casing, the bulb at one end of the outer casing being shown partly exposed, the internal elements in the outer casing not being shown.

Fig. 2 is a longitudinal sectional and exploded view of the flashlight illustrating the internal structure and arrangement of the component elements and, further, showing a plurality of firm elongated ribs spaced about the operating handle frictionally engaging a removable cover cap.

Fig. 3 is a longitudinal sectional and exploded view of a modified construction and showing a plurality of firm elongated ribs spaced about the casing frictionally engaging a removable cover cap which surrounds the operating handle.

Referring now to the drawing in detail and particularly to Fig. 1, numeral **10** represents an inner tubular member having an elongated slot **11** and having an operating handle **12** exposed past the lower end of the metallic spiral sleeve member **13**. The broken lines, at the bottom of the handle portion shown, are to indicate that the bottom of the operating handle may be open or closed. The spiral sleeve member is loosely fitted on the inner tubular member and is provided with a helical slot **14**. The annular rim **15** of the operating handle and the annular bead **16** at the upper end of the inner tubular member limit the longitudinal movement of the spiral sleeve member. Metallic carrier cup **17** is positioned in the inner tubular member. The carrier cup is provided with a metallic lateral follower pin **18** which is positioned in slot **11** and in slot **14** so that rotation of the inner tubular member relative to the spiral sleeve member will cause the carrier cup to move longitudinally in the assembly.

A battery **19**, indicated by the separated dash lines, is positioned in the carrier cup, the positive pole **20** being faced upwardly. In the metallic outer casing **21** there is



mounted a light bulb **22** shown partly exposed in the upper end of the outer casing. The light bulb is electrically connected to the outer casing so that upon contact of the battery with the conductor (not shown) of the light bulb and the outer casing the electric circuit will be closed and the bulb will be lighted. The means for electrically connecting the light bulb to the outer casing has not been described at more length because it is believed that persons skilled in the art to which this invention relates fully understand the construction and will be more concerned with the means for closing the electric circuit by employing a longitudinally movable carrier. The outer casing is of sufficient length to snugly telescope over the spiral sleeve member so that the outer casing and the spiral sleeve member may be rotated as a single unit relative to the inner tubular member to longitudinally move the carrier cup holding the battery. It is, therefore, evident that rotation of the operating handle relative to the outer casing will advance the battery and light the bulb.

Referring now particularly to Fig. 2, and in accordance with the present invention, there is shown a plurality of firm elongated ribs A spaced about the operating handle **12'**. Cover cap B is removably frictionally engaged on the ribs A and the interior of cover cap B is in spaced relation to the exterior of outer casing **21'** so as to be out of engagement therewith. The positive pole **20'**, of the battery **19'**, is in contact with the conductor **24** of the light bulb **22'** and the negative part **25**, of the battery **19'**, is in contact with the reduced neck portion **23**, of the metallic outer casing **21'**, thus the light bulb, which is electrically connected to the outer casing **21'**, is lighted. In its assembled position on the ribs, the cover cap safeguards the flashlight against accidental darkening of the light bulb because it safeguards against accidental relative rotation of the operating handle and the outer casing. The cover cap is provided with an opening C through which the light, from the lighted bulb, passes. It will be evident that when the positive pole **20'**, of the battery **19'**, is not in contact with the conductor **24**, of the light bulb, i.e. is longitudinally spaced from the light bulb, the light bulb will be darkened and the cover cap, in assembled position, will safeguard against accidental lighting of the light bulb by safeguarding against accidental advancement of the positive pole **20'** toward the light bulb.

Referring now particularly to Fig. 3, there is shown a modified form of the invention. A plurality of firm elongated ribs D are spaced about the metallic outer casing **21''**. Cover cap B' is removably frictionally engaged on the ribs D and the interior of cover cap B' is in spaced relation to the exterior of the operating handle **12''**. In its assembled position, the cover cap safeguards against accidental relative rotation of the operating handle and the outer casing and thereby safeguards against accidental darkening of the lighted bulb and may be employed as a handle for the flashlight.

Having described, in detail, preferred forms of the present invention, it will be understood that certain additional modifications may be made in the device of the present invention without departing from the scope thereof, and it will be understood that all matter contained in the foregoing specification and shown in the accompanying drawing will be interpreted merely as illustrative and not in a limiting sense.

What I claim is:

1. In an electric circuit appliance, the combination of a casing, a light bulb in one end of said casing electrically connected with said casing and having a conductor facing toward the other end of said casing, a carrier for conductor means disposed within said casing between said conductor and said other end of the casing in spaced longitudinal relation to said conductor, the

space between said conductor and said carrier being available for a battery, said carrier having a lateral projection and being longitudinally movable into said space for engaging one end of the battery to longitudinally move the battery into electrical contact with said conductor, cooperative means for lighting said light bulb when a battery is in said casing and the positive pole of the battery is in contact with said conductor, said cooperative means including conductor means normally carried by said carrier to close the circuit, an operating handle positioned outside said other end of the casing and connected to said casing for relative rotation, means for actuating said carrier operatively connected to said casing and said operating handle and including spiral cam means extending within said casing and engaging said lateral projection for imparting longitudinal movement to said carrier upon said relative rotation; a removable cover cap covering said casing in spaced relation thereto and frictionally engaging the exterior of the operating handle, whereby said appliance is safeguarded against accidental longitudinal movement of said carrier for conductor means toward and away from said conductor of the light bulb.

2. In an electric circuit appliance, the combination of a casing, a light bulb in one end of said casing electrically connected with said casing and having a conductor facing toward the other end of said casing, a carrier for conductor means disposed within said casing between said conductor and said other end of the casing in spaced longitudinal relation to said conductor, the space between said conductor and said carrier being available for a battery, said carrier having a lateral projection and being longitudinally movable into said space for engaging one end of the battery to longitudinally move the battery into electrical contact with said conductor, cooperative means for lighting said light bulb when a battery is in said casing and the positive pole of the battery is in contact with said conductor, said cooperative means including conductor means normally carried by said carrier to close the circuit, an operating handle positioned outside said other end of the casing and connected to said casing for relative rotation, means for actuating said carrier operatively connected to said casing and said operating handle and including spiral cam means extending within said casing and engaging said lateral projection for imparting longitudinal movement to said carrier upon said relative rotation; a removable cover cap covering said operating handle in spaced relation thereto and frictionally engaging the exterior of the casing, whereby said appliance is safeguarded against accidental longitudinal movement of said carrier for conductor means toward and away from said conductor of the light bulb.

3. In an electric circuit flashlight, the combination of a casing member, a light bulb in one end of said casing member electrically connected with said casing member and having a conductor facing toward the other end of said casing member, a carrier for conductor means disposed within said casing member between said conductor and said other end of the casing member in spaced longitudinal relation to said conductor, the space between said conductor and said carrier being available for a battery, said carrier being longitudinally movable into said space for engaging one end of the battery to longitudinally move the battery into electrical contact with said conductor, cooperative means for lighting said light bulb when a battery is in said casing member and the positive pole of the battery is in contact with said conductor, said cooperative means including conductor means normally carried by said carrier to close the circuit, an operating handle member positioned outside said other end of the casing member and connected to said casing member for relative rotation, means for actuating said carrier, upon said relative rotation, operatively connected to said casing member and said operating handle member; a cover cap, one of said members having means on its exterior for frictionally engaging the interior of said cover cap, said cover cap removably frictionally engaging said means on the said one of said members and covering the other of the said members in spaced relation thereto, whereby said flashlight is safeguarded against accidental longitudinal movement of said carrier for conductor means toward and away from said conductor of the light bulb.

4. In an electric circuit flashlight, the combination of a casing, a light bulb in one end of said casing electrically connected with said casing and having a conductor facing toward the other end of said casing, a carrier for conductor means disposed within said casing between said conductor and said other end of the casing in spaced longitudinal relation to said conductor, the space between said conductor and said carrier being available for a battery, said carrier being longitudinally movable into said space for engaging one end of the battery to longitudinally move the battery into electrical contact with said conductor, cooperative means for lighting said light bulb when a battery is in contact with said conductor, said cooperative means including conductor means normally carried by said carrier to close the circuit, an inner tubular member rotatable relative to said casing, handle means connected to said inner tubular member and exposed outside said other end of the casing for rotating said inner tubular member, means for actuating said carrier upon rotation of said inner tubular member relative to said casing, a removable cover cap covering said casing in spaced relation thereto and being mounted on the exterior of said handle means, whereby said flashlight is safeguarded against accidental longitudinal movement of said carrier for conductor means toward and away from said conductor of the light bulb.

5. In an electric circuit flashlight, the combination of a casing member, a light bulb in one end of said casing member electrically connected with said casing member and having a conductor facing toward the other end of said casing member, a carrier for conductor means disposed within said casing member between said conductor and said other end of the casing member in spaced longitudinal relation to said conductor, the space between said conductor and said carrier being available for a battery, said carrier being longitudinally movable into said space for engaging one end of the battery to longitudinally move the battery into electrical contact with said conductor, cooperative means for lighting said light bulb when a battery is in said casing member and the positive pole of the battery is in contact with said conductor, said cooperative means including conductor means normally carried by said carrier to close the circuit, an operating handle member positioned outside said other end of the casing member and connected to said casing member for relative rotation, means for actuating said carrier, upon said relative rotation, operatively connected to said casing member and said operating handle member; a cover cap, one of said members having means on its exterior for removably holding said cover cap against movement relative to said members, said cover cap covering the other of said members so as to be out of engagement therewith and having a portion thereof mounted on the holding means in engagement with said holding means, whereby said flashlight is safeguarded against accidental longitudinal movement of said carrier for conductor means toward and away from said conductor of the light bulb.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 2,312,305 | Berlinger | Mar. 2, 1943 |
| 2,651,709 | Ross et al. | Sept. 8, 1953 |
| 2,741,694 | Thomstad et al. | Apr. 10, 1956 |
| 2,797,309 | Dulberg | June 25, 1957 |