

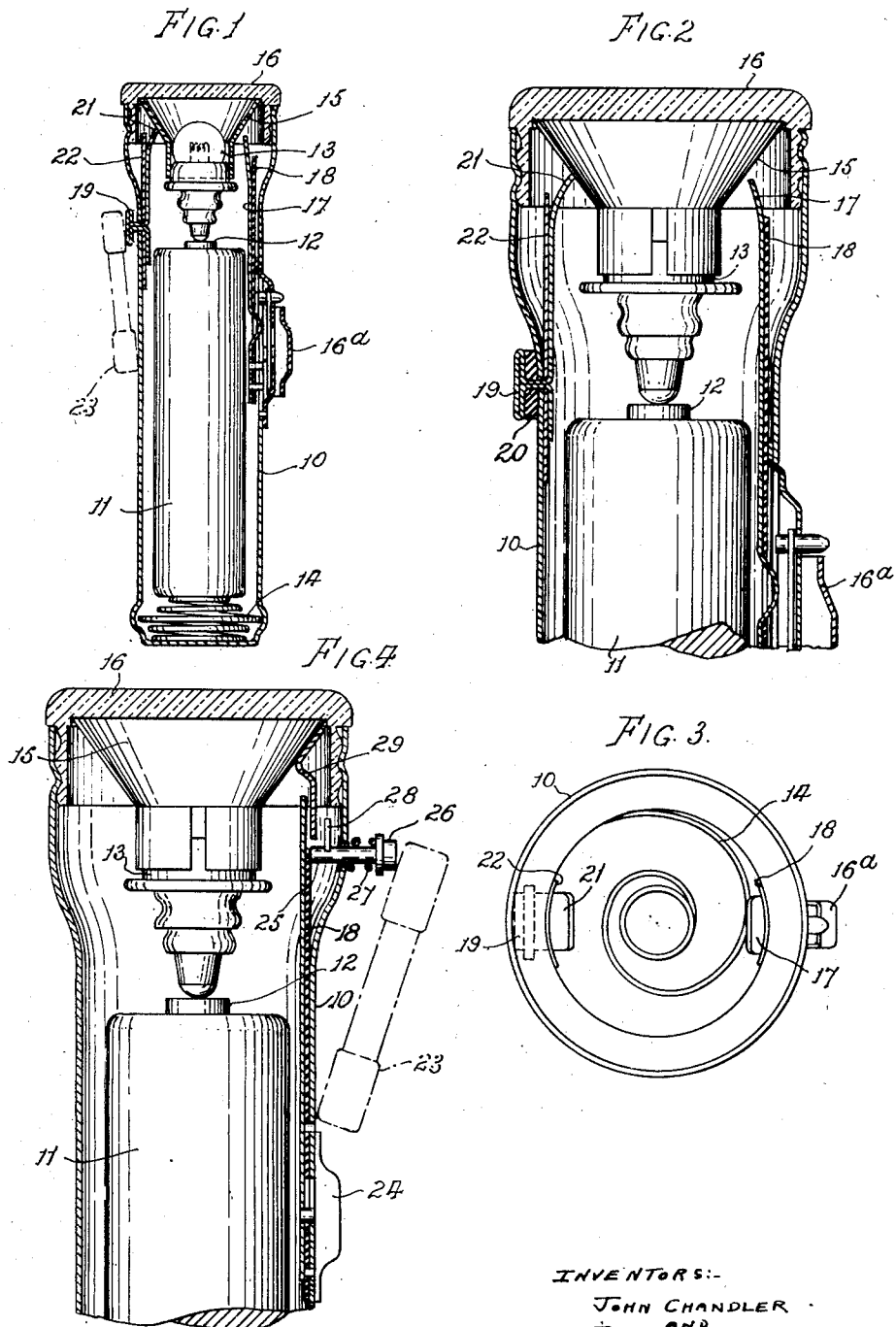
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FLASHLIGHT AND ELECTRICAL TESTER

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FLASHLIGHT AND ELECTRICAL TESTER

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2 Claims. (Cl. 324—53)

This invention relates to improvements in electric torches or flash lamps of the type in which a battery is housed in a casing and a bulb is illuminated by the completion of an electric circuit between the battery and the bulb.

The object of the invention is the provision of a pocket torch which may be employed for testing domestic or other fuses or electric conductors and circuits for continuity by the provision of a single auxiliary contact, the additional cost of which is negligible when incorporated in the manufacture of the new torch or flash lamp.

According to the invention an electric torch or flash lamp of the type referred to is formed with an auxiliary external contact, insulated from the casing, which when an electric circuit is completed from the contact to the casing will cause the bulb to be illuminated so that the continuity of a domestic or other fuse or electric circuit may be tested by placing the terminals respectively on the said contact and on the casing.

The invention will be described with reference to the accompanying drawings wherein:

Fig. 1 is a vertical section through a torch;

Fig. 2 is an enlarged section of part of Fig. 1;

Fig. 3 is a plan of same, with socket removed;

Fig. 4 is an enlarged section similar to Fig. 2 of a modification.

An electric torch is formed with a tubular metal casing 10 housing a battery 11, having a central electrode 12 to engage an electric light bulb 13, the opposite end or periphery of the battery 11 forming the second contact terminal thereof. The battery is enclosed in a cylindrical paper or card sheath and is in contact with the casing 10 through a spring 14 in normal manner.

The bulb 13 is carried in a lamp holder 15 mounted in a socket 16 of insulation material screwed or fixed into one end of the casing 10. The bulb 13 is normally illuminated by a switch 16a adapted to move a flexible metal strip 17 into contact with the lamp holder 15 to close the circuit. An insulation strip 18 may be provided between the strip 17 and the casing 10.

An auxiliary contact 19 is provided on the casing 10 but insulated therefrom by a disc 20 formed with a projecting tube passing through the casing. The contact 19 may be in the form of a bifurcated rivet and is con-

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nected to a strip 21 in contact with the lamp holder 15 and separated from the casing by an insulated strip 22.

When the switch 16a is open the bulb 13 may be illuminated by closing the circuit between the contact 19 and the casing 10 by placing a domestic or other fuse 23 across or by connecting any other electric circuit there-between. If the continuity of the fuse or circuit is broken the bulb will not be illuminated.

In the arrangement shown in Fig. 4, a switch 24 closes the circuit to the bulb by bringing a strip 25 into contact with a strip 29 on the lamp holder 15.

A plunger 26 which is insulated from the casing extends through the casing 10 and being normally wedged outwardly by a spring 27 engaging a flange on the plunger. The plunger carries an auxiliary contact 28 inside the casing which will engage a contact strip 29 on the lamp holder 15 when the plunger is depressed and the end thereof has engaged the strip 25 and brought it out of contact with the strip 29 of the lamp holder 15 thereby breaking the circuit to the bulb 13. If, however, a fuse 23 or other circuit is connected between the end of the plunger 26 and the casing 10 and the plunger is depressed to break the normal circuit to the bulb 13 the further movement of the plunger will again close the circuit through the auxiliary contact 28 thereby re-illuminating the bulb if the continuity of the fuse or other circuit between the plunger and casing is not broken.

We claim:

1. An electrical flashlight comprising an electrically conductive casing constituting a ground for a contained battery unit, an electrically conductive bulb holder mounted in one end of the casing and insulated therefrom, an electrical contact affixed to the bulb holder, switch means including a longitudinally slidable permanently grounded contact member flexibly engageable with one face of the affixed contact and slidable into and out of such engagement, a normally protruding conductive plunger mounted in and insulated from the casing opposite the engaging end of the grounded contact member and adapted when depressed to engage the said end of the grounded contact member and flex it from contact with the affixed contact and thereby open the switch contacts, and an auxiliary contact carried by the plunger in position to engage the other face of the affixed contact when the plunger is depressed to a position to flex the grounded contact member and open said switch contacts.

2. An electrical flashlight as defined in claim 1 in which the affixed contact extends axially from the bulb holder between the auxiliary contact and the path of the grounded contact member and there is insulation between the inner end of the plunger and the area of the grounded contact member engageable by the plunger.

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