

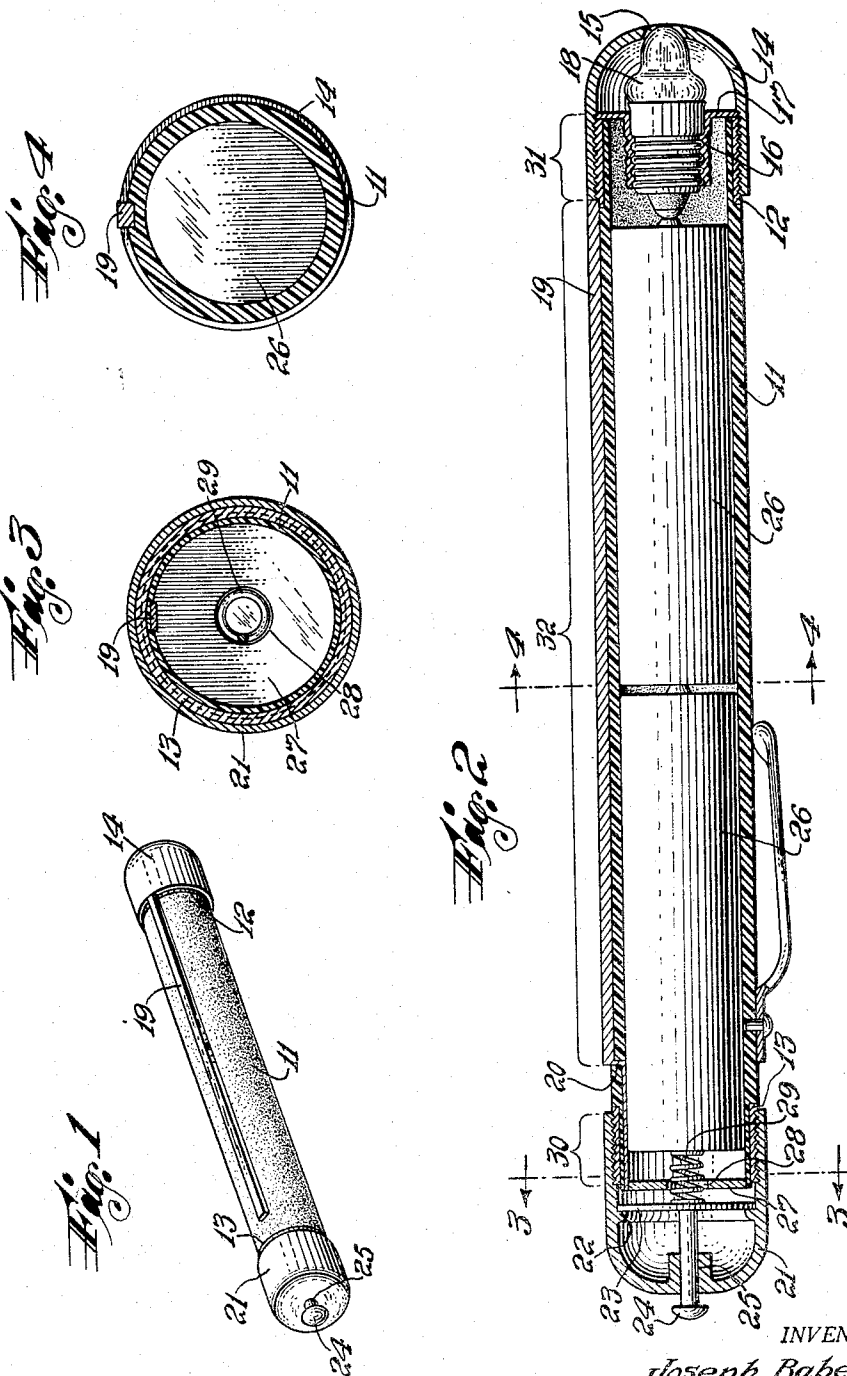
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COMBINED FUSE TESTER AND FLASHLIGHT

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COMBINED FUSE TESTER AND FLASHLIGHT

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1 Claim. (Cl. 324—53)

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My invention relates generally to a fuse tester and flashlight in combination, and specifically to such an item which carries self-contained batteries for the purpose of giving a visible signal.

It is among the objects of my invention to provide a fuse tester which will operate to test fuses in a dead circuit without removing them from the fuse box.

It is among the further objects of my invention to provide a fuse tester which will test a fuse in a dead circuit; i. e., in a fuse box in which the current is cut-off automatically when the door is opened.

It is among the further objects of my invention to provide a fuse tester which is safe to use, will give a visible signal as to the character of the fuse, and will also function as a flash-light when not being used as a fuse tester.

Among the further objects of my invention is to provide a combination fuse tester and flashlight which is simple in form, relatively inexpensive, durable and easy to construct.

These objects and advantages, as well as other objects and advantages, may be achieved by the device illustrated in the drawings, in which:

Figure 1 is a view in perspective showing my invention;

Figure 2 is a cross-sectional view;

Figure 3 is a cross-sectional view looking in the direction of the arrows taken on the line 3—3 in Figure 2; and

Figure 4 is a cross-sectional view looking in the direction of the arrows taken on the line 4—4 in Figure 2.

Referring now to the drawings in detail, my invention provides a combination fuse tester and flash-light which has a tubular casing 11. This casing is formed of non-conductive or insulating material. Each end of the casing 11 is provided with a threaded collar 12, 13. These collars are electrically conductive and are attached to the casing at both ends. On the outside thereof they are threaded. A dome-shaped cap 14 having an internal thread is in engagement with the threaded collar 12. The cap 14 is provided with a central aperture 15. A socket 16 having a flange 17 is seated at this end of the casing 11 and is in engagement with the threaded collar 12, thereby forming therewith an electrically conductive continuum. A bulb 18 is positioned in the socket and it has its end disposed in the central aperture 15 of the cap 14. An electrically conductive strip 19 is positioned on the outside of the casing having one end in contact with the threaded collar 12 and running along the casing nearly

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its entire length to a passage 20 near the collar 13. Here the strip 19 passes through the casing and extends along the inside thereof to the end. At this end, a cap 21 is in engagement with the second collar 13. This cap has an annular internal rib 22 which defines a seat upon which a contact plate 23 rests. A button 24 is attached to the contact plate 23 and extends through an aperture 25 in the cap 21. Pressure applied to the button 24 causes the contact plate 23 to move inwardly. Depending upon the length of the casing, a battery or batteries 26, are included therein. A closure plate 27 is attached to this end of the casing. The closure plate 27 is in electrical contact with the end of the strip 19. The closure plate has a central aperture 28. A spring 29 having one end engaged with the battery 26, extends through the aperture 28. The other end of the spring 29 is attached to the contact plate 23. The aperture 28 is so dimensioned that the spring will not be in electrical contact with it at any time. The spring 29 normally maintains the contact plate in the position shown in Figure 2. However, upon finger pressure being applied to the button 24, the contact plate 23 is moved to make contact with the closure plate 27, thereby completing the circuit and causing the bulb to light. This illustrates the manner of functioning of the device as a flash-light.

Its major function, however, is as a fuse tester and for this purpose its use is especially valuable for testing fuses in fuse boxes which have automatic cut-off features connected with the doors, i. e., when the door is opened the electrical circuit is broken so that the contacts in which the fuse rests are dead. Thus when the door of the fuse box is opened the fuse and its contacts are isolated from the electrical circuit. When my fuse tester is applied to the fuse to which it corresponds in size, one end 30 should contact one end of the fuse. The other end of the fuse tester 31 is brought into electrical contact with the other end of the fuse. If the fuse is good an electrical circuit is thereby completed through the fuse and the bulb 18 lights. In cases where the fuse is of lesser length than the fuse tester, the conductive strip 19 provides an additional area 32 upon which contact with the collar of the fuse may be made causing, thereby, the bulb to light if the fuse is good. If, however, the fuse is not good, the bulb does not light, because the circuit is not completed through the fuse. The use of this device obviates the necessity for removal of the fuse from the fuse contacts in order to test it. The fuse may be tested in place in

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the switch box. A considerable saving in time results with much added convenience.

The foregoing description is merely intended to illustrate an embodiment of the invention. The component parts have been shown and described. They each may have substitutes which may perform a substantially similar function; such substitutes may be known as proper substitutes for the said components and may have actually been known or invented before the present invention; these substitutes are contemplated as being within the scope of the appended claim, although they are not specifically catalogued herein.

I claim:

A fuse tester comprising a tubular non-conducting casing, a conductive first collar attached to the outside of the casing at one end, a second conductive collar attached to the outside of the casing at the other end, an electrically conductive apertured cap in threaded engagement with the first collar, a flanged conductive socket seated on the end of the first collar within the cap, a bulb in the socket with its vitreous end in the aperture in the cap, a straight conductive strip on the outside of the casing electrically connected to and extending from the first collar toward the second collar and then through the non-conducting casing and along the inside thereof, an apertured conductive cap in threaded engagement with the second collar, an annular internal rib in the cap defining a seat, a spring-

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pressed conductive contact plate normally positioned on the seat, a button attached to the contact plate and extending slidably through the apertured cap, a battery disposed in the casing with one electrode in contact with a contact of the bulb, an apertured conductive closure plate positioned inside and at the end of the non-conductive casing in contact with the end of the conductive strip and in opposition to the contact plate, a conductive spring with one end in engagement with the other electrode of the battery and the other end extending through the aperture in the closure plate and in electrical contact with the contact plate, said spring normally urging the contact plate into spaced relation to the closure plate, and said button adapted to move the contact plate into engagement with the closure plate.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
25 1,772,266	Puckett -----	Aug. 5, 1930
1,995,476	Kalb -----	Mar. 26, 1935
2,249,691	Gelardin -----	July 15, 1941
2,256,641	Fullmer -----	Sept. 23, 1941
2,275,696	Stamps -----	Mar. 10, 1942
2,443,539	Kopp -----	June 15, 1948
30 2,588,559	Needham -----	Mar. 11, 1952