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A. M. ROBERTS

CIRCUIT TESTER

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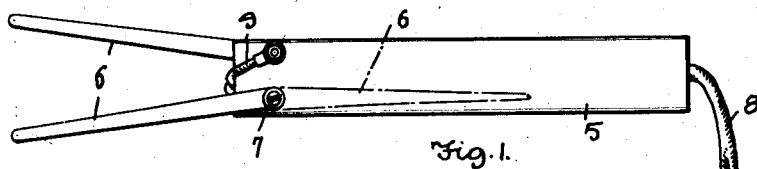


Fig. 1.

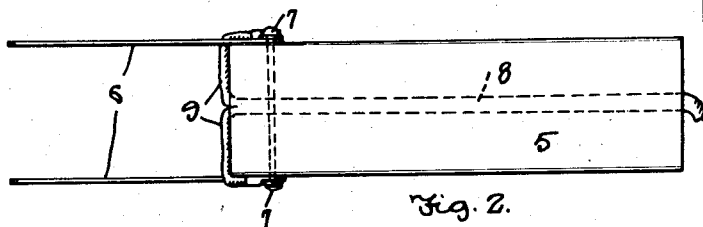


Fig. 2.

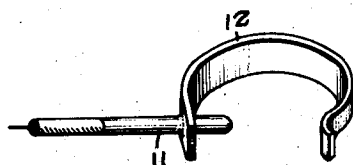
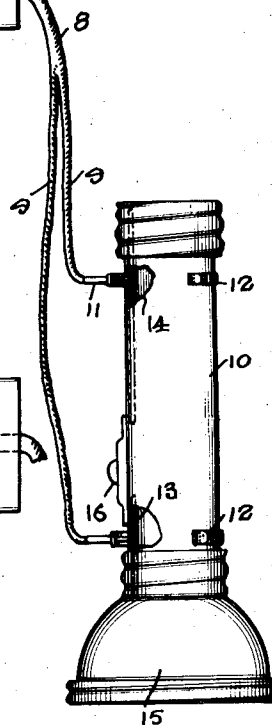


Fig. 3.

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UNITED STATES PATENT OFFICE.

ABRAHAM M. ROBERTS, OF OSGOOD, INDIANA.

CIRCUIT TESTER.

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This invention relates to improvements in electrical testing devices adapted for locating faults in various electrical devices, such as fuse plugs, coils, etc.

5 The primary object of the invention is to provide a testing device of the above kind which is extremely simple and durable in construction as well as efficient in operation.

10 Another object in the invention is to provide an electrical testing device of the above kind wherein means is provided for facilitating the use of an ordinary portable electric lamp whereby the incandescent bulb of the latter will act as an indicator and will
15 be supplied with current for its illumination by means of the usual battery cells of such lamp.

20 Other objects will appear as the nature of the invention is better understood, and the same consists of the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

25 In the drawing, wherein like reference characters indicate corresponding parts throughout the several views,

30 Figure 1 is an elevational view partly broken away, showing a testing device constructed in accordance with the present invention.

35 Figure 2 is an enlarged fragmentary elevational view showing the hand and contact fingers of the device illustrated in Figure 1 and

40 Figure 3 is an enlarged perspective view of one of the connectors for associating the conductors of the contact fingers with the portable electric lamp.

45 Referring more in detail to the drawing, the present invention embodies an elongated handle 5 of insulating material to one end of which is pivoted a pair of contact fingers 6 which are foldable to positions beside the handle when not in use as indicated by dotted line in Figure 1, whereby the device
50 may be caused to occupy a comparatively small space. The pivots of the fingers are indicated at 7 and are transversely aligned.

55 Extending longitudinally of and axially through the handle 5 is an attachment cord 8 composed of a pair of conductors 9, one of which has an end connected to the pivot 7 of one of the fingers 6 and the other of which has an end connected to the pivot 7 of the other finger 6. The remaining ends of the conductors 9, are provided with connectors

for electrical connection of the same with conductors of a conventional portable electric lamp generally indicated at 10, and each of the latter connectors consist of a pin 11
60 attached to the end of the conductor 9 and having one end thereof extending inwardly through an end of a circular clasp 12 adapted to snugly embrace the casing of the lamp 10. Conventional lamps of the type shown
65 at 10 embody conductors 13 and 14 in electrical connection with an electric light bulb carried within a reflector usually provided at 15, and with a terminal of battery cells carried within the casing 10, respectively.
70 The conductors 13 and 14 of the lamp 10 are usually bridged by manipulation of a switch 16, but in accordance with the present invention the casing 10 is formed with openings through which the pins 11 may project to
75 engage the conductors 13 and 14 so that the circuit of the incandescent bulb of the lamp 10 will be closed when the contact fingers 6 are bridged by a conducting means. The pins 11 are maintained in the openings of
80 the casing of the lamp 10 and in engagement with the conductors 13 and 14 by means of the clasp 12, and it will thus be seen that when the fingers 6 are bridged, the electric light bulb in the reflector 15 will be
85 lighted by current from the battery cells within the casing of the lamp 10. Thus, if the fingers 6 are engaged with the terminals of a fuse plug, the bulb of the lamp 10 will be lighted provided the fuse is good, while
90 the bulb will not be lighted if the fuse is burned out or there is a break between the terminals thereof. It is obvious that various electrical translating devices may be tested by engaging the terminals thereof with
95 the contact fingers 6, the bulb of the lamp 10 being lighted when the current of the battery cells of the lamp 10 properly flows through such electrical translating devices, and such bulb remaining unlighted when a
100 break is encountered. In this way various electrical testing operations may be conveniently carried out.

A testing device constructed in accordance with the above is extremely simple and
105 cheap in construction as well as efficient in operation and enables the employment of a conventional portable lamp to provide the necessary indicator and source of electricity. Obviously when the device is not in use the
110 clasp 12, may be disengaged from the lamp 10 so that the latter may be carried sepa-

rately from the remaining parts for convenience.

It is of course to be understood that the present device is designed particularly for use upon flash lights of the type employing fibre handles.

From the foregoing description it is believed that the construction and operation as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

What I claim as new is:

1. A circuit tester of the character described, comprising a hand flash light including a casing designed to receive a dry cell, and having a pair of apertures formed therethrough, conductor elements within said casing each one thereof arranged adjacent one of said apertures and one of said elements having an electrical engagement with said cell, an incandescent lamp arranged between the other pole of said cell and said other conductor element, a pair of resilient band members designed to be engaged about said casing, a contact post carried by said bands and each adapted to have one end extended through an adjacent casing aperture for engagement with a con-

ductor element, and flexible conducting elements each leading from one of said contact posts, substantially as and for the purpose described.

2. A circuit tester of the character described, comprising a hand flash light including a casing designed to receive a dry cell, and having a pair of apertures formed therethrough, conductor elements within said casing each one thereof arranged adjacent one of said apertures and one of said elements having an electrical engagement with said cell, an incandescent lamp arranged between the other pole of said cell and said other conductor element, a pair of resilient band members designed to be engaged about said casing, a contact post carried by said bands and each adapted to have one end extended through an adjacent casing aperture for engagement with a conductor element, flexible conducting elements each leading from one of said contact posts, said resilient elements being removably carried by said casing to permit the use of said flash light independently of the bands, posts and flexible conducting element.

In testimony whereof I affix my signature.
ABRAHAM M. ROBERTS.