July 25, 1939. L. E. HUSKEY 2,167,209

ELECTRIC BOARD TESTING APPARATUS

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Fig. 1.

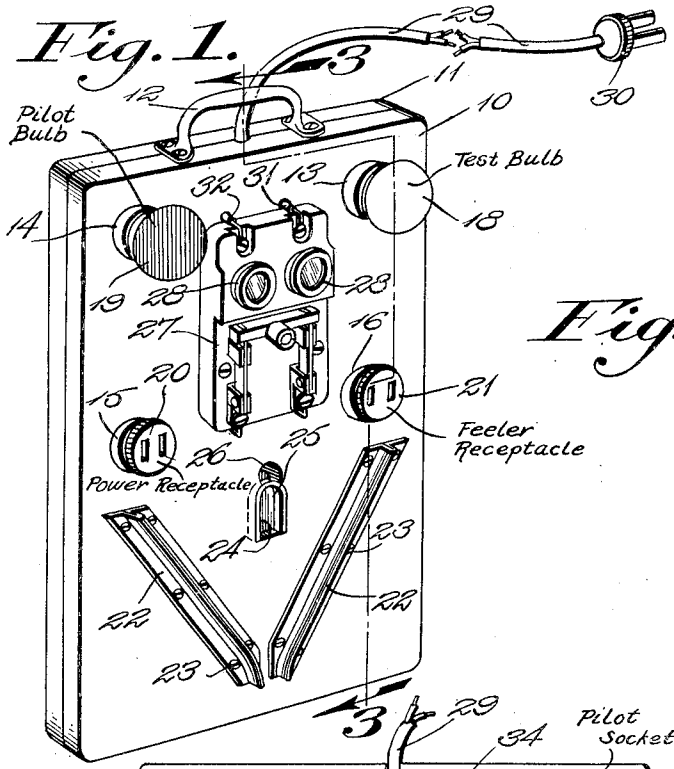


Fig. 3.

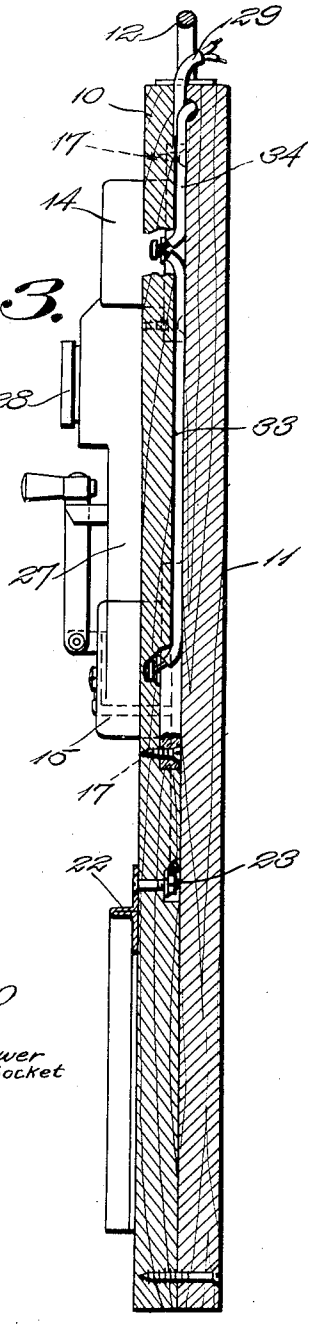
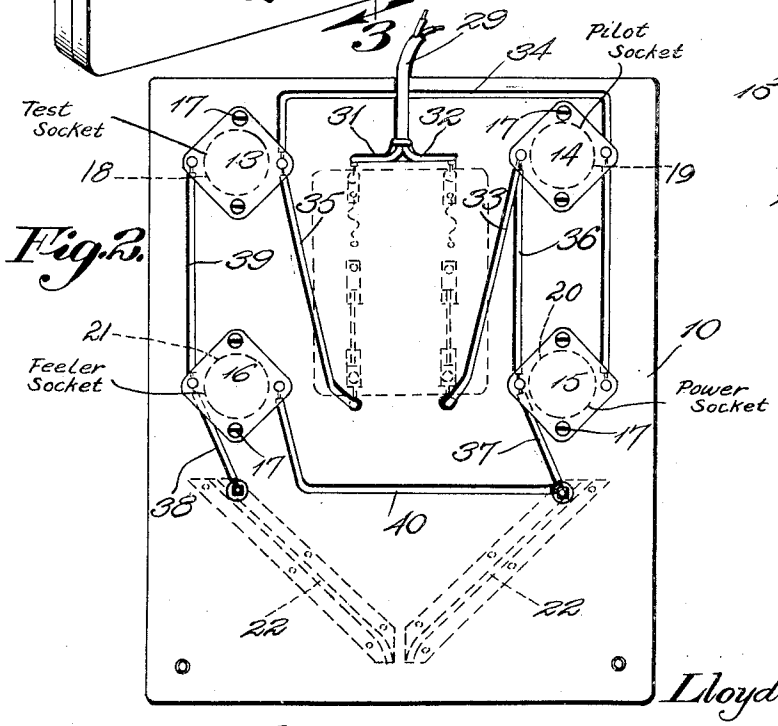


Fig. 2.



Lloyd E. Huskey
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

R. E. Wise
WITNESS

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ELECTRIC BOARD TESTING APPARATUS

Lloyd E. Huskey, Waterbury, Md.

Application October 28, 1936, Serial No. 108,084

1 Claim. (Cl. 175—183)

This invention relates to electric board testing apparatus and has for an object to provide apparatus whereby electric fuses, lamps, electric appliance cords, and other electric devices may be conveniently tested to determine if they are damaged.

Another object is to provide a device of this character which will be neat in appearance, convenient, portable, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a perspective view of electric board testing apparatus constructed in accordance with the invention.

Figure 2 is a rear elevation of the panel showing wiring of the various parts.

Figure 3 is an enlarged longitudinal sectional view taken on the line 3—3 of Figure 1.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a panel having the rear face grooved to receive electric wiring. A base plate 11 is mounted on the rear face of the panel and seals the grooves. Both the panel and the base plate may be formed of wood, or other insulating material and preferably the corners of both the panel and the base plate are rounded as shown in Figure 1. A handle 12 is fixed to one end of the instrument board produced by the assembled panel and base plate for transporting the same.

Four porcelain sockets 13, 14, 15 and 16 are inserted in openings formed in the panel and have their bases fitted in countersinks in the rear face of the panel and secured to the panel by screws 17 as best shown in Figure 3. The socket 13 at the upper right corner of the panel is provided with a test bulb 18 and the socket 15 at the upper left corner of the panel is provided with a pilot light bulb 19. The socket 15 at the left center of the panel is provided with a 110 volt power receptacle 20. The socket 16 at the right center of the panel is provided with a feeler receptacle 21.

A pair of T-shaped metal plates 22 are secured in diverging relationship to the panel near the bottom thereof by screws 23 passed through the flanges of the bars and into the face of the panel. The webs of the bars form contacts which may be bridged by screw base fuses, cartridge fuses, screw base lamp bulbs and other electric devices to be tested.

A U-shaped plug shorter 24 is inserted in a similar shaped opening 25 in the face of the panel, there being an opening 26 in the face of the panel through which a pointed instrument of any type may be inserted to dislodge the plug shorter for use in testing electric appliance cords and other cords as will presently be explained.

A double pole porcelain base switch 27 is mounted on the face of the panel between the porcelain sockets 13, 14, 15 and 16, and is provided with screw base fuses 28. The current supply cord 29 for the switch is equipped with a plug cap 30 and enters the top center of the instrument board, the separate wires 31 and 32 of the cord emerging through the front face of the panel and being connected to the fused switch as shown.

In wiring the instrument board a conductor wire 33 is led from one pole of the switch and connected to one terminal of the pilot light socket 14. A conductor wire 34 is connected to the other terminal of the socket and is connected to one terminal of the test socket 14. A wire 35 is connected to the same terminal of the test socket and is connected to the other pole of the switch. Consequently, whenever the switch is closed, and current is on the instrument board, the pilot lamp will glow. Preferably, the pilot lamp bulb is colored red.

A conductor wire 36 is connected to the same terminal of the pilot light socket to which the wire 33 is connected, and is connected to one terminal of the 110 volt power socket 15. A wire 37 is connected to the same terminal of the 110 power socket and is connected to one of the bars 22. A wire 38 is connected to the other one of the bars 22 and is connected to one terminal of the feeler socket 16. To the same terminal of the feeler socket a wire 39 is connected and this wire is connected to the remaining terminal of the test socket 13 as illustrated.

The screw bases of lamp bulbs, fuse plugs, and other electrical apparatus may be placed upon the bars 22 in such manner that the center terminal engages one of the bars and the outer screw terminal engages the other bar. If the device being tested is in good order the test bulb 18 will glow since the device being tested closes the test circuit at the bars 22. The test circuit comprises the wire 33, wire 36, wire 37,

bars 22, wire 38, wire 39, test bulb 18, and wire 35.

A wire 40 is connected to the wire 37 at its connection with one of the bars 22, and is connected to the remaining terminal of the feeler socket 16. When electric utensil cords are to be tested the plug shorter 25 may be placed in the cord socket to connect the two cords together in the socket and thereupon the plug cap of the cord may be placed in the feeler receptacle 21. If the cord is unbroken the feeler circuit will be closed and the test bulb 18 will glow. The feeler circuit comprises the wires 33, 36, 37, 40, plug receptacle 21, wire 39, test flash bulb 18 and wire 35.

Preferably the test bulb 18 is colored blue so as to be easily distinguished from the pilot light.

The power receptacle 20 may be used to plug in electric soldering irons and other tools. The power supply circuit comprises the wire 33, wire 36, power receptacle 20, wire 34, and wire 35.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

In electric testing apparatus, a panel, a pilot socket, a test socket, a power socket, a feeler socket, distinctively colored bulbs in the pilot and test sockets, receptacles in the power and feeler sockets, a pair of diverging metal plates on the panel below the sockets adapted to be bridged by devices to be tested, a double pole switch on the panel between the sockets, a current supply cord connected to the switch, a pilot circuit comprising a wire connected to one pole of the switch and to one terminal of the pilot socket, a wire connected to the other terminal of the pilot socket and to one terminal of the test socket, a wire connected to the just mentioned terminal of the test socket and to the other pole of the switch, said wires energizing the pilot bulb while the switch is closed, a fuse testing circuit comprising a wire connected to the same terminal of the pilot socket to which the first mentioned wire is connected and connected to one terminal of the power socket, a wire connected to the just mentioned terminal of the power socket and to one of said diverging bars, a wire connected to the other of said bars and connected to one terminal of the feeler socket, a wire connected to the just mentioned terminal of the feeler socket and to the remaining terminal of the test socket, the second named wire of the pilot circuit being connected to the remaining terminal of the power socket to connect the power socket in parallel with the pilot socket and form a power supply circuit, and a wire connected to the first mentioned one of the diverging bars and connected to the remaining terminal of the feeler socket to provide a feeler circuit for testing cords of electric utensils.

LLOYD E. HUSKEY.