Nov. 4, 1924. 1,514,555

J. H. MEEHAN

ELECTRICAL TESTING DEVICE

Filed Aug. 30, 1922 2 Sheets-Sheet 1

Fig. 1.

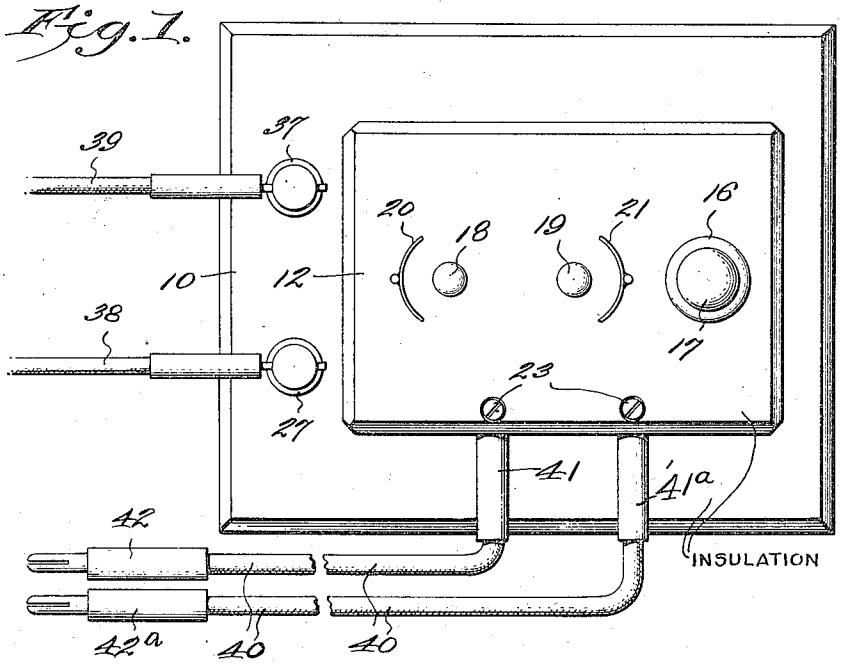
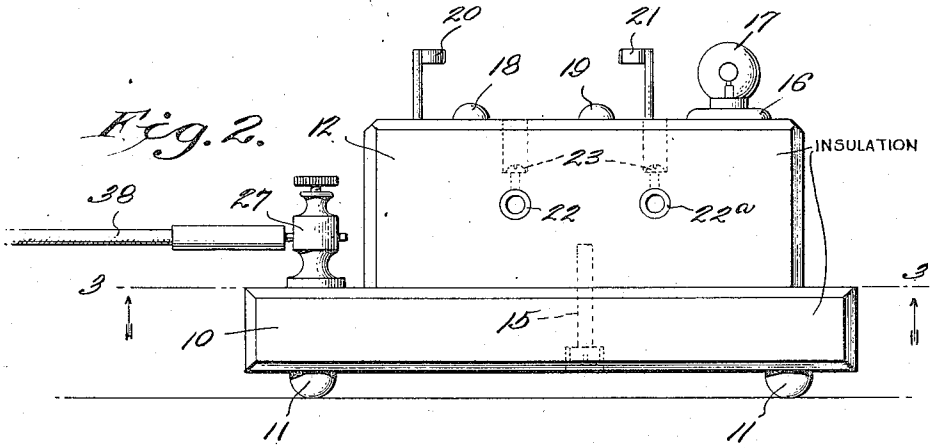


Fig. 2.



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Fig. 3.

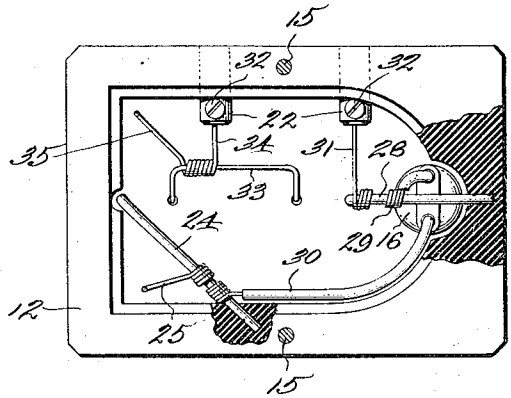


Fig. 4.

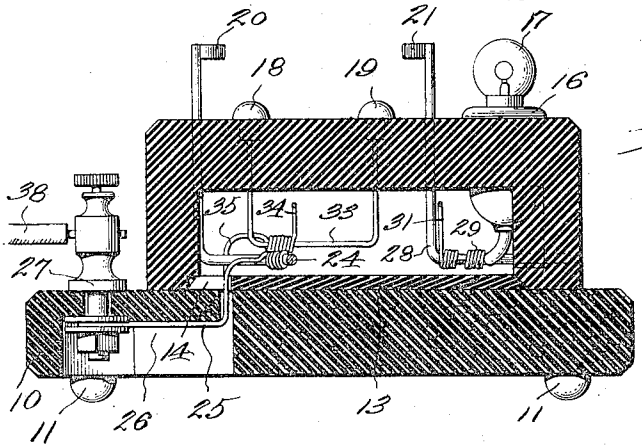
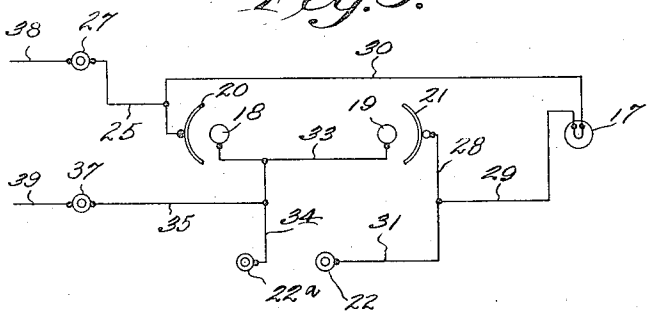


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES H. MEEHAN, OF LEADVILLE, COLORADO.

ELECTRICAL TESTING DEVICE.

Application filed August 30, 1922. Serial No. 585,229.

To all whom it may concern:

Be it known that I, JAMES H. MEEHAN, a citizen of the United States, residing at Leadville, in the county of Lake and State of Colorado, have invented new and useful Improvements in Electrical Testing Devices, of which the following is a specification.

This invention relates to electrical testing apparatus and has for its object the provision of a novel device by means of which incandescent lamps, fuses and electrical appliances may be easily tested to ascertain whether or not they are in proper condition for service.

An important object is the provision of a device of this character which is designed to be connected with an ordinary circuit such as used for electric lighting in homes, offices and the like, various accessory parts being provided by means of which the various tests may be carried out.

An additional object is the provision of a device of this character which will be simple and inexpensive in manufacture, a great time and labor saver in use, and a general improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a plan view of the device,

Figure 2 is a side elevation,

Figure 3 is a horizontal section on the line 3—3 of Figure 2 looking upwardly, and showing the connections in the casing member,

Figure 4 is a longitudinal sectional view,

Figure 5 is a diagram of the electric circuit.

Referring more particularly to the drawings the numeral 10 designates a supporting base which is constructed of insulating material, preferably marble, and which is also provided on its underside with rubber feet 11.

Mounted upon the base 10 is a casing 12 of wood or other suitable insulating material which is provided in its bottom with a removable closure plate 13 having one end formed with notches 14. This casing 12 is held in position on the base by means of suitable screws 15 which pass upwardly through the base and into the edges of the casing.

Mounted in the top of the casing is a socket 16 containing a low candle power test lamp 17 and also mounted on the casing are spaced contact buttons 18 and 19 adjacent which are located upstanding arcuate contact members 20 and 21 respectively. One side of the casing is formed with holes through which extend sleeves 22^a held in place by means of suitable screws 23 passed into the casing and engaging the sleeves.

The electrical connections are as follows. The numeral 24 designates a busbar which has one end carrying the arcuate contact 20. Soldered or otherwise secured to this bus is a wire 25 which passes through one of the notches 14 in the plate 13, and which lies within a channel 26 in the underside of the base. This wire is connected with a binding post 27 rising from the base. A second busbar 28 is located within the casing and has one end carrying the arcuate contact 21. Connected with this second busbar is a wire 29 which is connected with one terminal of the socket 16 which has its other terminal connected by a wire 30 with the first mentioned busbar 24. Also connected with the busbar 28 is a wire 31 connected with sleeve 22 and held in place by a set screw 32. The two contact buttons 18 and 19 are connected by a wire 33 to which is connected a wire 34 leading to the sleeve 22^a. A wire 35 is also connected with the wire 34, passes through the other notch 14 in the plate 13, lies within a channel 36 in the underside of the base and is connected with a binding post 37.

In the use of the device feed wires 38 and 39 from a suitable source of current are connected with the binding posts 27 and 37. In actual practice these feed wires would consist of conducting cord plugged into an electric light socket or the like in the building in which the testing is to be done. Current will then enter through the wires connected with these binding posts and will be fed to the busbar 24 and wire 33. When it is desired to test an incandescent lamp the shell thereof is engaged against the contact 20 with the end terminal engaged against the button 18. If the lamp is not burnt out it will of course light up. When it is desired to test a fuse, the shell of the fuse is

engaged against the contact 21 and the central terminal is engaged upon the button 19. If the fuse is in good condition the circuit will be closed from the button 19 to the contact 21 so that it will flow through the test lamp 17. If the fuse is defective the test lamp will not light.

When it is desired to test a household appliance such as an electric iron or the like to determine the existence of a ground, I provide a pair of conducting cords 40 carrying plugs 41 and 41ª which are engaged within the sleeves 22 and 22ª. The other ends of these cords carry plugs 42 and 42ª. In testing, one plug 42 is connected with one terminal of the appliance and the other plug 42ª is engaged against the metal part thereof. If there is a ground or short circuit a spark will be produced at such point of contact.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed and consequently inexpensive device by means of which incandescent lamps, fuses and electrical appliances of all kinds may be quickly and easily tested to determine the exact condition thereof. Owing to the simplicity of the construction and the fewness of the parts it is apparent that there is nothing to get out of order so that the device should have a long life and satisfactorily perform all of the functions for which it is intended.

While I have shown and described the preferred embodiment of the invention it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention I claim:

A testing device comprising a supporting base, a casing mounted thereon and carrying spaced arcuate contact shoes and contact buttons there adjacent, binding posts on the base, a socket mounted on the casing and carrying an incandescent test lamp, said lamp having its terminals connected with the respective arcuate contacts and with one binding post, both of said contact buttons being connected with the other binding post, and a pair of metallic sleeves extending through one side of the casing, one sleeve being connected with one binding post and both contact buttons, and the other sleeve being connected with one of said arcuate contacts.

In testimony whereof I affix my signature.

JAMES H. MEEHAN.