

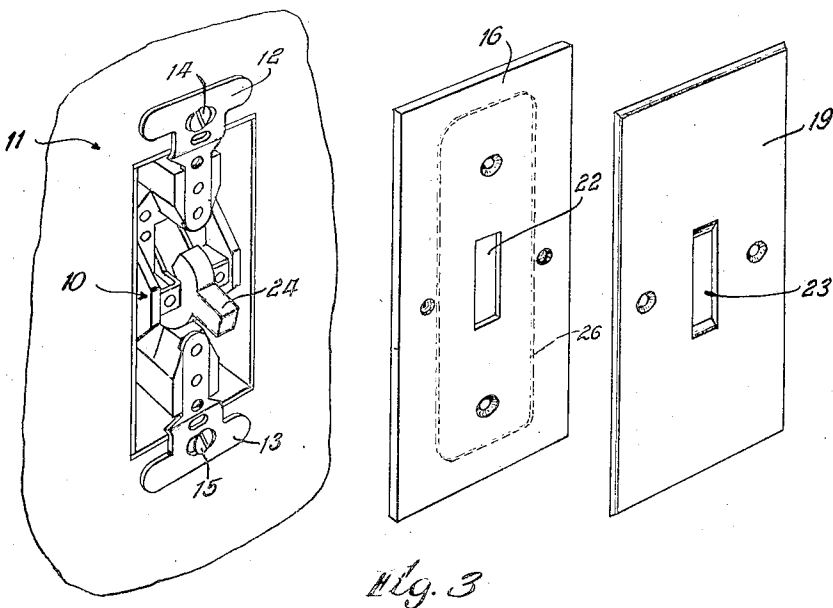
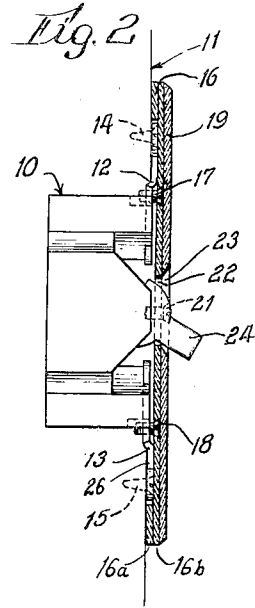
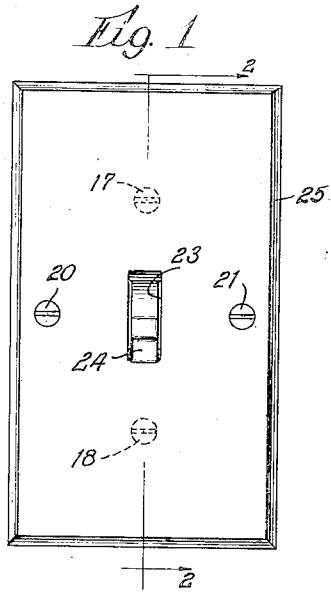
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H. F. STARRETT

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INSULATED WALL PLATE

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UNITED STATES PATENT OFFICE.

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INSULATED WALL PLATE.

Application filed June 2, 1923. Serial No. 643,029.

This invention relates to wall plates such as are adapted for use in connection with electrical switches, or other forms of electrical fittings.

5 It is common practice to surround electrical switch handles and other electrical fittings with metallic plates, usually arranged flush with the adjacent wall surfaces and serving to cover the operating parts and connections of the fitting. Such plates, however, as have heretofore been in common use, have usually been entirely or partly composed of electrically conductive material and consequently are a source of danger to the operator in case 10 any of the working parts or connecting wires become disarranged and grounded upon the wall plate. This danger is greatly aggravated when the switch or fixture is located in the proximity of other electrically conductive objects with which the operator might be in contact while operating the switch. In such instances, the body of the operator may serve to complete an electric circuit from the defective switch to the conductive objects. If such adjacent objects are grounded, serious and perhaps fatal injuries from electric shock may result to the operator. Injuries from this cause often arise when switches covered with metallic plates are located in bathrooms or other localities where the operator is liable to be in contact with well grounded plumbing fixtures, or with bodies of water which greatly aid the conductivity of the skin of the operator. 35

The dangers as above pointed out may also exist even though no defect occurs in the switch or other fitting, as for example, when an excessive potential may be accidentally applied to a lighting circuit. In such cases the excessive voltage may be sufficient to arc over the insulated parts of the switch to the metallic cover plate. 40

With the above facts in mind, I have designed an electrical switch or outlet cover plate structure comprising this invention, which has for one of its objects the avoidance of all possibility of electrical shock to the operator. 45

50 A further object of this invention is to provide an improved wall plate of the character above indicated which has no exposed conductive parts extending into the switch or fixture proper.

55 Another object of my invention is to fur-

nish an electrical fitting structure provided with an insulated cover plate and also with a superposed insulated finish plate.

Further objects of my invention are to provide an improved and durable structure of the character above indicated, which is inexpensive to manufacture and install, which possesses only a small number of parts, and which presents a pleasing and finished appearance. 60

65 Still further objects may become apparent from the following description and the appended claims, taken in connection with the accompanying drawings, in which—

Figure 1 is a face view of a structure embodying my invention as applied to a toggle switch; 70

Fig. 2 is a central sectional view taken upon the line 2—2 of Fig. 1; and

Fig. 3 is a perspective view illustrating the various parts comprising my invention, in disassembled relation. 75

My invention, as illustrated in the drawings, is shown as applied to a toggle switch 10, which may be of any commonly well known type. However, it is to be understood that this invention is capable of application to switches of other types and even to electrical fittings other than switches. 80

The switch 10, as shown, may be mounted with its open face flush with a wall surface 11 and may be provided with the usual form of fastening strips, as at 12 and 13. The strips 12 and 13 may be attached to the wall in any suitable and well known manner, as by screws at 14 and 15. 85

The front face of the switch, together with the wall portion immediately surrounding the switch, are shown covered with a cover plate 16, preferably formed from a slab of hard rubber or other insulating compound. The cover plate 16 may be conveniently fixed upon the strips 12 and 13 as by screws 17 and 18 similar to the manner in which the well known form of metallic wall plate is attached to the switch structure. 90 95 100

A second plate, which will be here termed a finish plate 19, serves to cover the face of the plate 16. The plate 19 is also preferably formed from a plate of insulating material and it is highly desirable that this finish plate should be composed of material capable of receiving a high polish. The finish plate, however, need not be as thick as the cover plate, since the cover plate may be of suffi- 105 110

cient thickness to fully re-enforce the finish plate. The cover plate, not being exposed to view when the finished device is installed, need not be composed of insulation of such high quality and finish as is desirable for the finish plate.

The finish plate 19 may be preferably fixed upon the cover plate 16 and for this purpose a pair of screws 20 and 21 may be used. It will be noted that the screws 20 and 21 are inserted in screw holes, which are non-communicating in respect to the screw holes for the screws 17 and 18. With this structure, it will be noted that the only conductive parts that are exposed upon the face of the plate will be the screws 20 and 21. These screws, however, merely extend into or through the insulation plate 16 and accordingly, can, under no circumstances, serve as the conductors of electricity from the interior parts of the switch to the hands of the operator. The plates 16 and 19 may be formed with communicating openings, as at 22 and 23 providing for the extension of an operating handle 24 of the switch 10, or for the corresponding actuating parts of any other electrical fitting which may be mounted in back of the wall plates.

The plate 19 presents a very desirable appearance when its edge is entirely beveled as at 25. The edge of the plate 19 when beveled in this manner merges with the square edge of the plate 16 without any noticeable joint. Accordingly, a structure is provided which has an appearance fully as desirable as that of a single plate structure.

It will now be apparent that a cover plate for electrical fittings may be provided in the above described manner, which is free from all possible danger of electrical shock to the operator. The cover plate member 16 serves to insulate all conductive parts of the electrical fitting with the exception of the fastening screws 17 and 18. The finish plate 19 then serves the purpose of completely insulating the screws 17 and 18 and also in addition provides a convenient means for giving the device a highly finished appearance.

In forming the plate 16 it is desirable to provide a recess as at 26 therein, in order to provide space for the fastening strips 12 and 13. I have also found that sheet material comprising a phenol condensation product is an especially desirable insulating material to be used for the plates 16 and 19. Such material, however, is more adapted to being shaped and finished by abrasive methods than by cutting. Accordingly, in order as far as possible to avoid cutting operations in forming the plate 16, the plate as here shown may be formed of two thin sheets 16^a and 16^b (see Fig. 2), the sheet 16^a having its central portion

wholly cut away to form the recess 26. The sheets 16^a and 16^b may be glued together to form the plate 16.

Although but one specific embodiment of this invention is herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following 70 claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent in the United States, is—

1. An electrical device comprising a switch member, a wall cover plate fixed thereon, securing means therefor, and a finish plate superposed and fixed over said cover plate, said plates being both formed of insulating material, the finish plate concealing the cover plate and said securing means. 80

2. An electrical device comprising a switch member, an operating handle extending therefrom, a wall cover plate fixed over said switch, securing means for said wall cover, and a finish plate superposed on and concealing said cover plate and said securing means, said plates being both formed of insulating material and with communicating openings for the extension therethrough of said operating handle. 90

3. In a device of the character described, an electrical fitting, a cover plate therefor, means for fixing said cover plate to said fitting, a finish plate superposed on said cover plate, said plates being both formed of insulating material, and means spaced from said first named means for fixing said finish plate to said cover plate. 95

4. An electrical device comprising a switch member, a wall cover plate therefor, a finish plate superposed on said cover plate, said plates being both formed of insulating material and with non-communicating openings therethrough, means extending through the openings in said cover plate for fixing said cover plate to said switch member, and means extending through the openings in said finish plate for fixing said finish plate to said cover plate. 110

5. In a device of the character described, an electrical fitting, a wall cover plate fixed thereon, securing means for said wall cover plate, and a finish plate superposed and fixed over said cover plate and covering said securing means, said plates being both formed of insulating material, and said finish plate being comparatively thin in respect to said cover plate. 115

In witness whereof, I have hereunto subscribed my name. 120

HENRY F. STARRETT.