

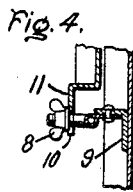
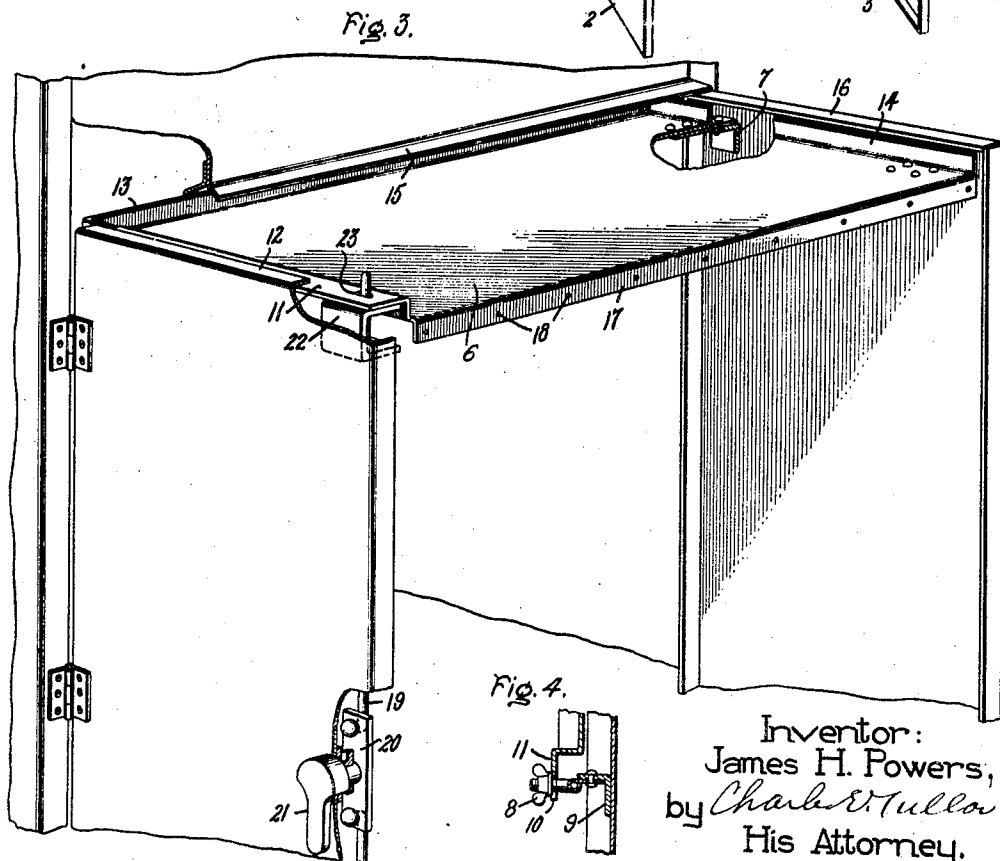
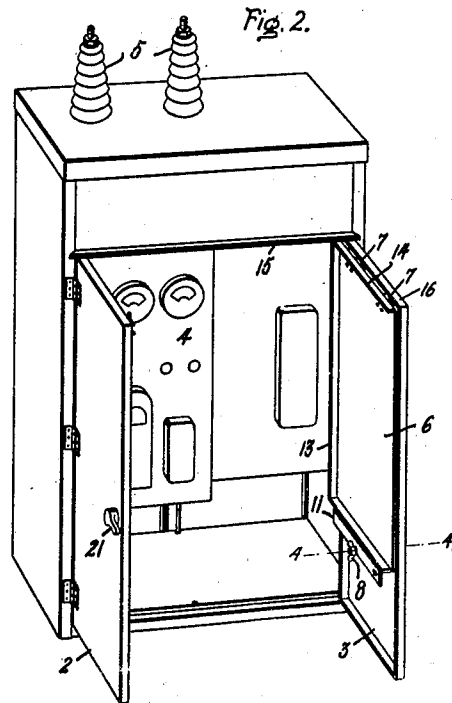
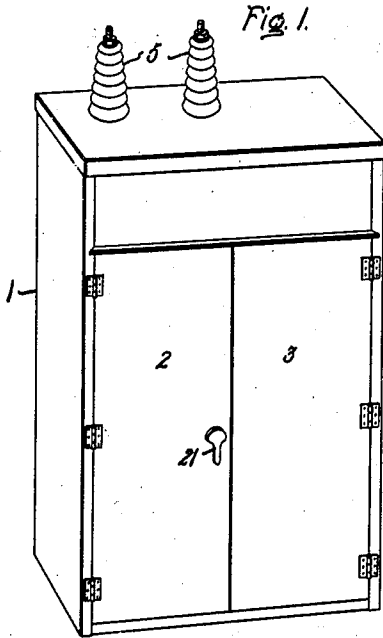
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J. H. POWERS

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ELECTRICAL SWITCH HOUSE

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UNITED STATES PATENT OFFICE

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ELECTRICAL SWITCH HOUSE

Application filed December 22, 1930. Serial No. 504,057.

My invention relates to small outdoor electrical switch houses and has for its object the provision of an improved switch house structure affording protection to an operator from inclement weather during inspection or repair of apparatus within the switch house.

The usual construction of small outdoor switch houses generally comprises a sheet metal housing having a pair of doors pivotally mounted at opposite sides of the housing so as to swing outwardly and away from each other. The electrical apparatus generally occupies most of the space within the housing so that it is necessary for an operator to stand outside of the switch house when inspecting or repairing the electrical apparatus. In view of the fact that the operator is therefore exposed to the weather, his work may be seriously hampered in severe climates. In accordance with my invention the switch house is provided with a cover or visor member coacting with the doors of the switch house when in open position to form a protective auxiliary housing for the operator.

My invention will be more fully set forth in the following description referring to the accompanying drawing, and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

Referring to the drawing, Fig. 1 is a view of an outdoor switch house to which my invention is applicable; Fig. 2 is a view of the switch house embodying my invention with the doors in the open position prior to adjustment of the protecting cover or visor; Fig. 3 is an enlarged perspective view, partly in section, of the protecting visor in operative position, and Fig. 4 is a detailed view taken along the line 4-4 of Fig. 2.

In Figs. 1 and 2 there is illustrated a fabricated switch house of the small outdoor type comprising a generally rectangular sheet metal housing 1 having the doors 2 and 3 hinged at opposite sides of the front of the housing. The space within the switch house is generally occupied by the electrical

apparatus 4 comprising an instrument panel and control mechanism behind which circuit breakers or other electrical apparatus (not shown) may be mounted, the circuit conductors for the electrical apparatus extending through the insulator bushings 5 mounted on top of the housing. As illustrated in Fig. 2, the electrical apparatus within the switch house is spaced but a short distance from the front side of the switch house and inspection thereof necessitates that the operator stand exteriorly of the switch house.

For the purpose of forming an auxiliary protective housing in communication with the interior of the switch house, there is provided a cover member or visor 6 arranged to cooperate with the upper portions of the doors 2 and 3 respectively when said doors are in the open position at substantially right angles with respect to the front switch house wall. For example, and without limitation of my invention thereto, the cover member 6 is mounted on and carried by the door 3 at its upper edge, as by the hinge members 7. The cover member when in inoperative position hangs against and parallel to the door 3 as illustrated in Figs. 2 and 4 and is secured in this position as by a locking nut 8 pivotally mounted on a bracket 9 secured to the door 3, and extending through a slot 10 formed in the offset flange 11 comprising the outer free edge of the cover member.

The cover member is placed in the operative position by releasing the locking nut 8 and swinging the member upwardly substantially 90° to engage the upper portion of the door 2 so that the flanged portion 11 extends beneath the overhanging flange 12 forming part of the door 2. The cover member 6 is likewise flanged, as at 13 and 14, so as to extend beneath the overhanging flanges 15 and 16 forming parts of the front wall of the housing 1 and the door 3 respectively. The front side of the cover member is formed by a depending flange 17 perforated as at 18 for a purpose hereinafter described. By reason of the overhanging door and housing flanges the interior of the auxiliary housing is shielded

from rain, the water collected by the cover member flowing over the front edge flange 17.

For the purpose of locking the cover member in operative position so as to form with the doors 2 and 3 a rigid protective housing, the conventional locking structure for the doors may be employed. This locking structure comprises a locking rod 19 pivotally connected to an operating plate 20 and handle 21 and guided for vertical reciprocal movement within a U-shaped bracket 22 secured to the door 2. The operation of the locking rod 19 in securing the doors 2 and 3 in closed position is too well known to necessitate further description other than that the housing is provided with an alined aperture for receiving the locking rod arrangement.

In securing the cover member 6 in position the locking rod is operated in the same manner, the flange 11 of the cover member, which is supported in its upper position on the bracket 22, being provided with an aperture 23 in alinement with the apertures through the bracket 22 so that the locking rod 19 may be slid through the flange 11 to lock the doors 2 and 3 and the cover member 6 together as a rigid structure. By this arrangement there is provided an auxiliary protective housing communicating with the interior of the switch house and affording ample space for the operator, while protecting him to a great extent from the weather.

If desired, a canvas curtain may be hung from the front edge of the visor to provide further protection, the apertures 18 in the depending flange receiving the hooks or members for supporting the curtain. In lieu of a curtain for the front of the auxiliary protective housing, the doors 2 and 3 may each be provided with hinged panels or the like, normally positioned against and parallel to the inner sides of the doors, and arranged to swing towards each other when the doors 2 and 3 are open to close the front in a manner similar to closing of the switch house.

Return of the cover member to its inoperative position is accomplished simply by rotating the operating handle 21 to lower the locking bar out of engagement with the flange 11, and swinging the door 2 slightly away from the cover member 6 so that the flange 11 may clear the bracket 22 permitting the cover member to swing to its vertical inoperative position illustrated in Fig. 2 in which it is secured by the locking bolt 8. In this position the cover member occupies very little space and presents no obstruction to the interior of the switch house in the event that use thereof is not desired.

Although the cover member is illustrated as mounted on one of the doors, it is within the scope of my invention to mount the

cover member on the housing proper so as to slide or swing outwardly to engage the doors 2 and 3 in the open position substantially as illustrated in Fig. 3.

It should be understood that my invention is not limited to specific details of construction and arrangement thereof herein illustrated, and that changes and modifications may occur to one skilled in the art without departing from the spirit of my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is:

1. The combination with an outdoor switch house having a pair of doors pivotally mounted on said house each movable about a vertical axis to a position substantially at right angles to said house, of means forming with said doors when in the aforesaid open position an auxiliary protective housing in communication with the interior of said switch house comprising a plate-like cover member coacting with the upper portions of said doors, means permanently connecting said cover member to one of said doors and means detachably connecting said member to the other door.

2. The combination with a fabricated outdoor switch house including a pair of sheet metal doors each mounted for pivotal movement to a position substantially at right angles to said house, of means forming with said doors an auxiliary protective housing in communication with the interior of said switch house when said doors are in the open position comprising a sheet metal cover member secured to and detachably and rigidly joining the upper edges of said doors, the upper edges of said doors and the corresponding edges of said cover member having coacting flange structure for preventing entrance of rain at said edges.

3. The combination with an outdoor switch house including a pair of doors each mounted for pivotal movement to a position substantially at right angles to said house, of means forming with said doors an auxiliary protective housing in communication with the interior of said switch house when said doors are in the open position comprising a cover member pivotally mounted at the upper edge of one of said doors, and means for securing the free edge of said member to the upper edge of the other door in the operative position.

4. The combination with an outdoor switch house including a pair of doors each mounted for pivotal movement to a position substantially at right angles to said house and locking means carried by one of said doors, of means forming with said doors an auxiliary protective housing in communication with the interior of said switch house when said doors are in the open position comprising a cover member secured to and

joining the upper edges of said doors, said locking means engaging one edge of said cover member for rigidly connecting said member to said doors.

- 5 5. An outdoor switch house comprising a pair of doors each mounted for pivotal movement to a position substantially at right angles to said house, a locking rod mounted on and carried by one of said doors, said locking rod being guided for vertical movement within a bracket secured to said door, and a cover member carried by and hinged to the upper portion of the other door, said cover member pivotally movable substantially 90° with respect to said door to engage the other door, said cover member including a flanged portion arranged to engage said bracket having an aperture in alinement with said locking rod so that said cover member and said doors may be rigidly

interconnected by said locking rod to form an auxiliary housing in communication with the interior of said switch house.

6. An outdoor switch house comprising a pair of doors each mounted for pivotal movement to a position substantially at right angles to said house, each door having an overhanging flanged portion at its upper edge, locking means carried by one of said doors, and a cover member hinged on and carried by the other of said doors directly beneath the corresponding flange of said door, said cover member movable about its hinged mounting substantially 90° to engage said other door and be secured thereto by said locking means, the flanges on each of said doors overhanging the corresponding edges of said cover member.

JAMES H. POWERS. 85

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