W. M. SCOTT.

SWITCH CONSTRUCTION.

APPLICATION FILED JUNE 5, 1909.

946,157. Patented Jan. 11, 1910.

Fig. 1.

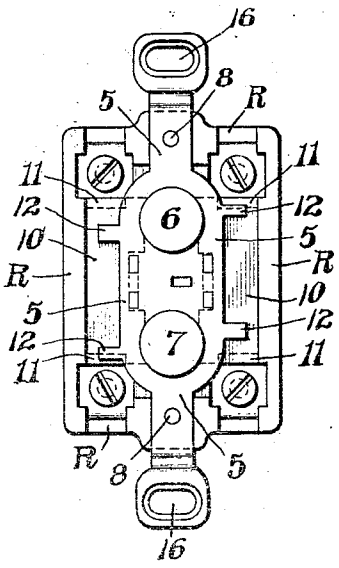



Fig. 2.

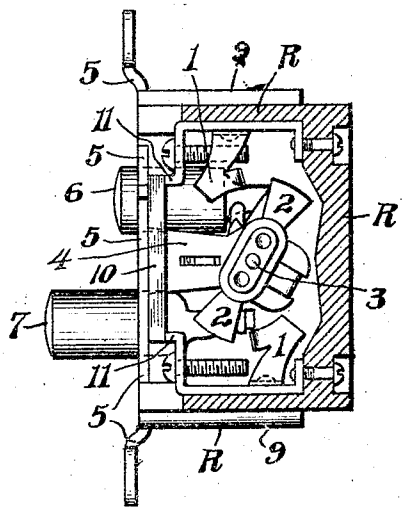
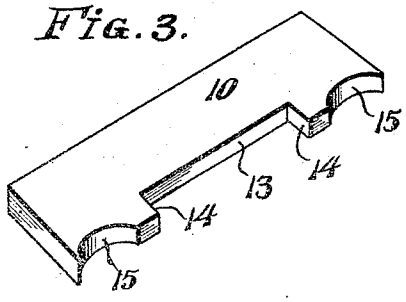



Fig. 3.




Witnesses

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# UNITED STATES PATENT OFFICE.

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## SWITCH CONSTRUCTION.

946,157. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed June 5, 1909. Serial No. 500,434.

*To all whom it may concern:*

Be it known that I, WILLIAM M. SCOTT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Switch Construction, of which the following is a specification.

My invention relates to the construction of electric switches and relates more particularly to flush switches such as are commonly mounted in a wall of a building and flush therewith. In installing switches of such character, it is common to mount the switch in position, without the usual finish plate, before the plastering of the building is begun or completed. As a result plaster or other material lodges in the box or receptacle inclosing the switch mechanism, so as to clog or otherwise render it inoperative. And it has been customary when the plastering of a building has been completed to go over all the switches to remove the plaster or other material which has lodged within the switch receptacle before attaching the finish plates. At best, however, this can only be imperfectly done and at relatively great expense.

It is the object of my invention to prevent plaster or other foreign material finding its way into the switch receptacle, and to this end I provide closure members secured in place at the time the switch is assembled, these closure members being held in place by switch elements and entirely closing the switch receptacle or box, so that the switch mechanism and contacts are substantially entirely inclosed, whereby plaster, or other foreign material, cannot be lodged within the receptacle.

For an illustration of one of the forms my invention may take, reference is to be had to the accompanying drawing, in which:

Figure 1 is a top plan view of a two button snap switch of the flush type, the usual finish plate being omitted. Fig. 2 is a sectional view, partly in elevation, of the switch shown in Fig. 1. Fig. 3 is a perspective view of a closure member.

In the drawing, R is the switch box or receptacle, of insulating material, such as molded porcelain, which incloses the usual stationary contacts 1, 1 and the movable contacts 2, 2 mounted upon the spindle 3 supported by the switch supporting members 4 secured to and depending from the top plate 5.

6 and 7 are the usual two buttons extending through the top plate 5 and operating the switch mechanism pivoted upon the spindle 3 for causing the movable contacts 2, 2 to engage or disengage from the stationary contacts 1, 1, as well understood in this art.

The switch mechanism and contacts are mounted within the receptacle R, the top plate 5 extending across the top of the receptacle. This top plate 5 carries the movable contacts and the button operating mechanism, the plate 5 being secured to the receptacle R by the screws 8 which extend upwardly through the enlargements 9 upon the receptacle R. To close the receptacle and thereby entirely inclose the contacts and movable parts of the switch, I provide the closure members 10, of any suitable insulating material, a slightly yielding or resilient insulating material such as asbestos board, micanite, etc., being preferred.

As seen in Fig. 2, the closure member 10 rests upon the upturned lips 11 of the binding post and stationary contact supporting members, and as held between these lips 11 and the under side of the top plate 5, the assembling of the switch by the screws 8 in effect clamping the closure members 10 between these parts. The top plate 5 is provided further with lugs or ears 12 which extend laterally over the closure members 10 to assist in holding them in place. Each closure member 10 is provided with a notch 13 having the shoulders 14 which embrace the switch supporting member 4 which is secured to and depends from the top plate 5. The closure member is recessed also at 15, 15 to closely embrace the buttons 6 and 7, though not preventing their movement.

As thus assembled, the switch is mounted in position in the wall by screws extending through the openings 16 in the top plate 5, the top face of the switch being brought flush with the face of the wall. It follows, therefore, that a building may be plastered or otherwise operated upon after the mounting and connection of the switches and without the lodgment of any plaster or other foreign material within the receptacle to clog the switch parts or to otherwise render it inoperative.

The closure members are simple, efficient, and inexpensive, and save the expense usually incurred by cleaning out the switches and their receptacles after completion of a building and before the finish plates are attached.

What I claim is:

1. In a switch of the class described, the combination with a receptacle and a top plate, of a closure member on each side of said top plate secured under said top plate and between the same and said receptacle, said top plate and closure members entirely inclosing the switch mechanism.

2. In a switch of the class described, the combination with a switch receptacle and a top plate, of a closure member, and a lug upon said top plate extending over said closure member to hold the same.

3. In a switch of the class described, the combination with a switch receptacle and a top plate, of a closure member secured between said top plate and said receptacle, a switch supporting member extending from said top plate, and a recess in said closure member embracing said supporting member.

4. In a switch of the class described, the combination with a switch receptacle and a top plate, of a closure member secured between said top plate and said receptacle, a switch supporting member extending from said top plate, a recess in said closure member embracing said supporting member, and a lug upon said top plate extending over said closure member.

5. In a switch of the class described, the combination with a switch receptacle and a top plate, of a switch supporting member secured to said top plate, a button extending through said top plate, a closure member, and recesses in said closure member adapted to receive said button and said switch supporting member.

6. In a switch of the class described, the combination with a switch receptacle and a top plate, of binding post members secured within said receptacle, and a closure member resting upon said binding post members and held by said top plate.

7. In a switch of the class described, the combination with a switch receptacle and a top plate, of binding post members secured within said receptacle, a closure member resting upon said binding post members and held by said top plate, a switch supporting member secured to said top plate, and a recess in said closure member embracing said switch supporting member.

8. In a switch of the class described, the combination with a switch receptacle and a top plate, of binding post members secured within said receptacle, a closure member resting upon said binding post members and held by said top plate, a switch supporting member secured to said top plate, a button movable through said top plate, and recesses in said closure member adapted to receive said switch supporting member and said button.

In testimony whereof I have hereunto affixed my signature in the presence of the two subscribing witnesses.

WILLIAM M. SCOTT.

Witnesses:

ELEANOR T. MCCALL,

A. E. STEINBOCK.