

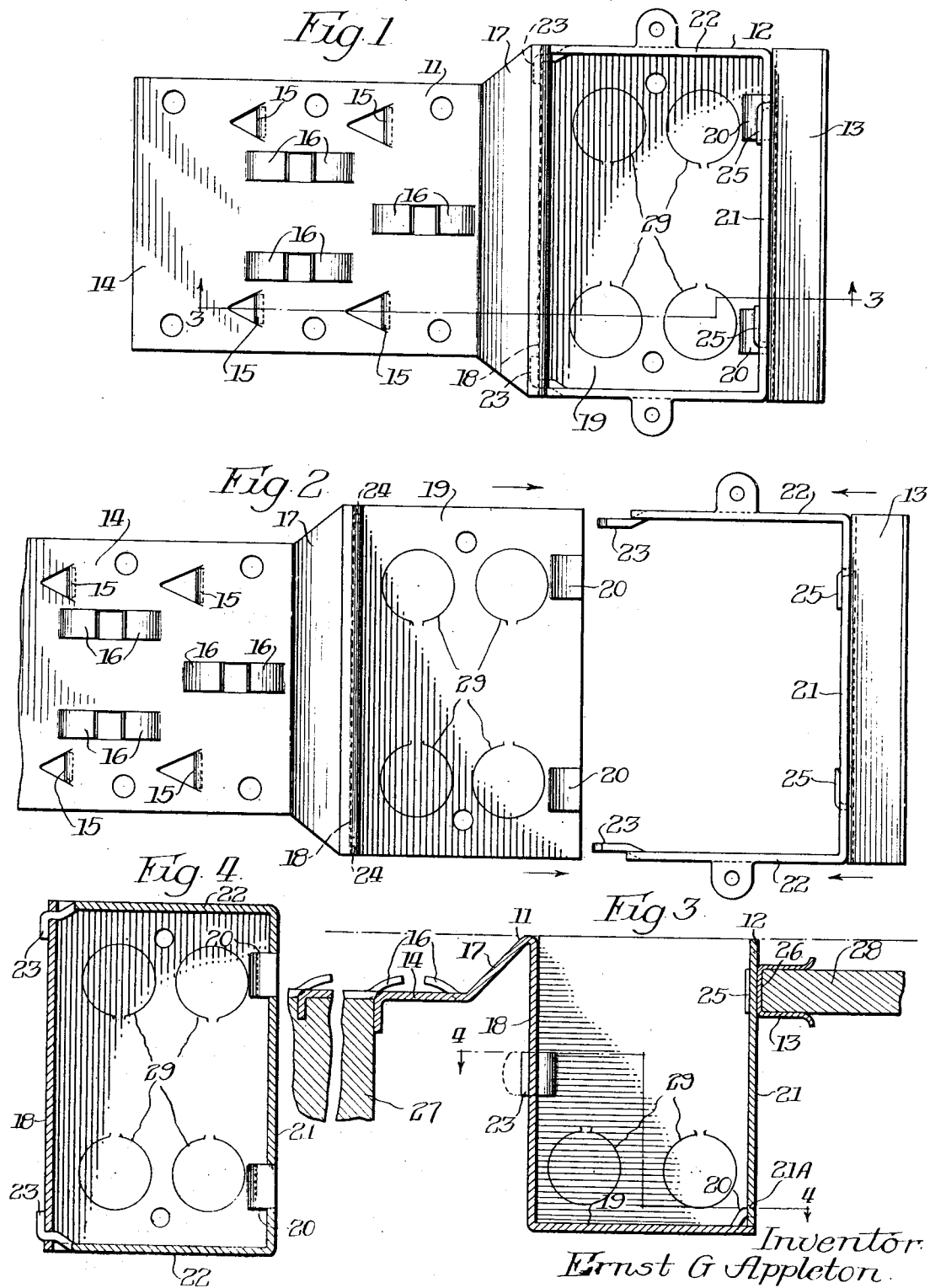
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E. G. APPLETON

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SWITCH BOX

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Inventor:
Ernst G. Appleton.
By William H. Hupley, Byron H. Knight.
Attys

UNITED STATES PATENT OFFICE

ERNST G. APPLETON, OF CHICAGO, ILLINOIS, ASSIGNOR TO ROACH-APPLETON MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

SWITCH BOX

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The present invention relates to switch boxes.

More particularly the present invention relates to boxes for containing switching mechanism, such for example as the ordinary push button switch used in house wiring circuits. The present invention constitutes an improvement over the structure shown in the United States Letters Patent to Thayer
10 #982,193.

An object of the present invention is to provide an improved switch box adapted to be secured to the studding or a similar device as ordinarily provided in house building
15 which switch box is adapted to support the lath which must be interrupted when said switch box is mounted in place.

A further objects is to provide an improved switch box which is sturdy in construction and which may be manufactured at a minimum expense.

A further object is to provide an improved switch box which may be made up of a minimum number of parts, which parts may be
25 metal stampings, and which is well adapted for a commercial production on a large scale.

Further objects will appear as the description proceeds.

Referring to the drawings—

30 Figure 1 is a plan view of one embodiment of the present invention;

Figure 2 is a view similar to Figure 1, but showing two parts of the illustrated embodiment of the invention separated from one
35 another;

Figure 3 is a sectional view taken along the plane 3—3 of Figure 1; and

Figure 4 is a sectional view taken along the planes indicated by the arrows 4—4, Figure 3.
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The improved switch box, which is indicated as a whole by the numeral 10, comprises three major parts indicated by the numerals 11, 12 and 13. The part 11 of the switch box
45 comprises a sheet metal member bent into a plurality of planes. One part 14 of the member 11 comprises a generally flat portion, times 15—15 being downwardly struck therefrom and plaster keys 16—16 being upwardly
50 struck therefrom. At one extremity of the

part 14 is the part 17 disposed in angular relationship with the part 14, said angularly disposed part 17 being located on the same side of the part 14 as are the plaster keys 16—16. At the inner extremity of the part 17 is the
55 part 18 disposed in substantially right angular relationship with the part 14. Said part 18 forms one wall of the switch box 10. At the lower extremity of the part 18 is the part 19, which is disposed in a plane substantially
60 parallel with the plane of the part 14. The outer edge of the part 19, which lies in a plane substantially parallel to the plane of the part 18, has fingers 20—20 struck up therefrom, the outer extremities of which fingers
65 extend in a direction substantially parallel with the part 19. Part 19 comprises the bottom wall of the switch box 10.

The major member 12 of the switch box 10 comprises a sheet metal member bent in substantially U-form, the bottom of which U-form is comprised by the part 21, having the slots 21A—21A adapted to receive the extremities of the fingers 20—20. The two legs
70 of the member 12 of U-form are comprised by the parts 22—22. Extending outwardly of the free edges 22—22 are fingers 23—23, the extremities of which fingers are disposed in planes disposed slightly inwardly of the parts 22—22. Said fingers 23—23 are adapted
75 to be inserted into slots 24—24 in the part 18.

The third major member 13 of the switch box 10 comprises a lath support made up of sheet metal of relatively light gauge, said lath
80 support 13 having tongues 25—25 struck from the bottom wall 26 thereof, said tongues being adapted to enter corresponding slots in the part 21 of the major member 12 and to be riveted over, whereby the lath support 13
85 is rigidly secured to the part 21.

Figure 3 shows the part 14 of the major member 11 secured to a wall stud 27. Said figure also shows a lath 28 disposed within the lath support 13. It will be clear that the
90 lath support 13 will be so disposed relative to the part 14 that the inner faces of the lath supported by the lath support 13 will be in substantially the same plane as the outer face of the wall stud 27. Moreover, the part 14
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will be so disposed relative to the front edge of the box that when said part 14 is secured to a wall stud, said front edge of the box will lie substantially in the plane of the plaster covering the lath 28. Expressed in other language, the lath support 13 will be so located relative to the part 14 that the interrupted lath supported by the member 13 will be held in their normal planes, and the member 14 will be so disposed that the inner face thereof is displaced from the outer or front edge of the switch box 10 a distance substantially equal to the usual thickness of lath and plaster. The usual knock-outs are indicated by the numerals 29—29.

The assembling of the switch box above described is very simple. The lath supporting member 13 may be secured to the major member 12 in a preliminary operation, the fingers 25—25 being riveted over into rigid holding relationship with the part 21 of said major member 12. The major members 11 and 12 are applied to one another in the direction of the arrows in Figure 2, either with a straight line or a rocking movement. As said major members 11 and 12 are moved together, the fingers 23—23 extending from the members 22—22 will locate themselves within the slots 24—24 in the member 18. The fingers 20—20 extending from the member 19 will locate themselves within the slots 21A—21A in the member 21. Figure 3 shows the major members 11, 12 and 13 in assembled relationship with one another, the fingers 23 being indicated in dotted lines in the positions they assume before being bent over upon the outer face of the part 18. After said parts 23—23 are bent or riveted over, major members 11 and 12 will be rigidly secured to one another, a straight withdrawal of the member 12 from the member 11 being impossible due to the riveted over fingers 23—23 and withdrawing of the member 12 from the member 11 by a rocking movement being impossible by reason of the engaging of fingers 20—20 within the slots 21A—21A.

Though a preferred embodiment of the present invention has been described in detail, many modifications will occur to those skilled in the art. It is intended to cover all such modifications that fall within the scope of the appended claims.

What is claimed is:

1. A switch box comprising two major members, one of said major members comprising two plane portions in right angular relationship with one another comprising a side wall and the bottom wall of said switch box and a third portion extending from the top of said side wall intermediate of the length of said side wall and including a plane part extending in right angular relationship with said side wall, the other of said major members comprising a U-shaped member having portions riveted over said side wall and

having a portion interfitting with said bottom wall.

2. A switch box comprising two major members, one of said major members comprising two plane portions in right angular relationship with one another comprising a side wall and a bottom wall of said switch box, and a third portion extending from the top of said side wall and including a plane part extending intermediate of the length of said side wall in right angular relationship with said side wall, said bottom wall being provided with fingers, the other of said major members comprising a U-shaped member, the legs of said U-shaped member being provided with fingers having riveted relationship with said side wall, the bottom of said U-shaped member having slots for receiving said fingers of said bottom wall.

3. In a switch box, in combination, a pair of major members, one of said major members comprising two portions in right angular relationship with one another comprising a side wall and the bottom wall of said switch box and a stud engaging portion extending from the top of said side wall intermediate of the length of said side wall integral with said other portions, said stud engaging portion including a plane part displaced from the front edge of said side wall a distance substantially equal to the normal thickness of lath and plaster, the second of said major members being a U-shaped member, the bottom of which U-shaped member comprises the other side wall of said switch box and the two legs of which U-shaped member comprise the two end walls, said two major members having interfitting portions for holding same in rigid relationship with one another.

4. A switch box comprising two major members, one of said major members comprising two plane portions in right angular relationship with one another comprising a side wall and the bottom wall of said switch box, and a third plane portion in right angular relationship with said side wall and extending from the top of said side wall intermediate of the length of said side wall, said third plane portion being displaced from the face of said box a substantial amount, the other of said major members comprising a U-shaped member adapted to interfit with the side wall and bottom wall of said first major member to form three other walls of said switch box.

5. A switch box comprising two major members, one of said major members comprising two plane portions in right angular relationship with one another comprising a side wall and the bottom wall of said switch box, and a third plane portion in right angular relationship with said side wall and extending from the top of said side wall intermediate of the length of said side wall, said

third plane portion being displaced from the face of said box a substantial amount, the other of said major members comprising a U-shaped member adapted to interfit with the side wall and bottom wall of said first major member to form three other walls of said switch box, said major members having cooperating fingers and slots, said fingers being adapted to be riveted over to hold said major members in rigid relationship with one another.

Signed at Chicago, Illinois, this 5th day of March, 1928.

ERNST G. APPLETON.

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