Sept. 15, 1925. 1,553,696

F. S. KAY

SWITCH BOX SUPPORT

Filed July 3, 1922

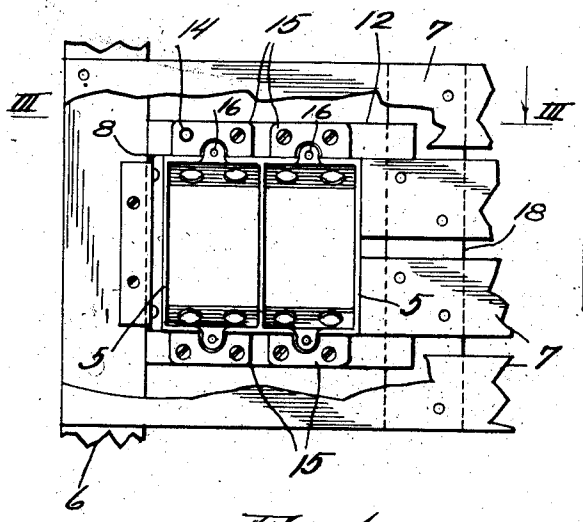


Fig. 1

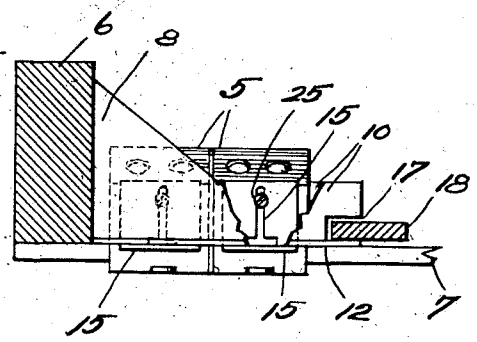
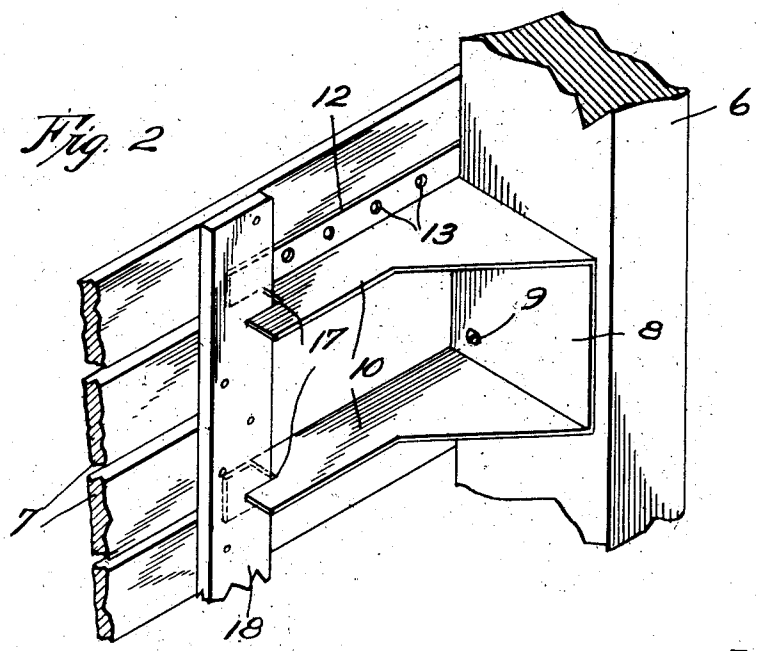


Fig. 3

Fig. 2



Witness:

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UNITED STATES PATENT OFFICE.

FREMONT S. KAY, OF MORLAND, KANSAS.

SWITCH-BOX SUPPORT.

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To all whom it may concern:

Be it known that I, FREMONT S. KAY, a citizen of the United States, and resident of Morland, county of Graham, State of Kansas, have invented a certain new and useful Improvement in Switch-Box Supports (Case A), of which the following is a complete specification.

The present invention relates to supporting means for electric switch boxes, adapted for use where switch boxes are being installed inside the walls or partitions of a building, and aims to provide a novel and improved device which may be conveniently installed in position for properly supporting a switch box in connection with either old or new building structures.

Accordingly, I have devised a construction which comprises a supporting member to which the switch box is adapted to be conveniently applied, the supporting member being adapted for convenient attachment to one of the studs or joists of the wall or partition, and also provided with means for affording secure retaining engagement with a lath strip associated with the usual horizontal laths of the wall or partition.

More specifically, the invention comprises a supporting member formed as a housing adapted to partially enclose the switch box, and having provision at one side of the housing for attachment to the adjacent joist or stud, while at the opposite side of the housing the same is formed with one or more elements adapted for retaining engagement with a vertical lath strip secured to the horizontal laths of the wall.

It is also sought to provide a practical, compact and efficient device for fulfilling the desired functions, and one which may be manufactured at comparatively small expense for both work and material.

With these general objects in view, the invention will now be described by reference to the accompanying drawing illustrating one form of construction which I have devised for embodying the proposed improvement, after which those features deemed to be novel will be particularly set forth and claimed.

In the drawing—

Figure 1 is a face view of a portion of a building wall structure equipped with a device constructed in accordance with the present invention, and showing a switch box in position preparatory to the application of the plastering;

Figure 2 is a perspective view, looking at the structure from the rear; and

Figure 3 is a section taken on the line III—III of Figure 1.

Referring now to the drawing in detail, this illustrates the improved device in its operative relation to a wall structure, which may be either one of the outside walls or a partition wall of a building, composed of the usual horizontal laths 7 attached to a stud or upright joist 6. Where the switch boxes 5 are located before the plastering is applied to the wall, it is customary to make use of a board which is cut with an opening for accommodating the switch box, and then nailed in place in the required position between two studs or joists, some of the lath strips 7 being removed for this purpose. Other expedients have been employed as substitutes for such a board construction, but have not been found sufficiently practical or have proved too complicated, and I have therefore devised a supporting member which is adapted to be conveniently stamped out of sheet metal to form a housing bracket of somewhat U-form, the intermediate portion 8 of which is designed to be secured by means of screws 9 to the adjacent stud or joist 6, the parallel leg portions 10 being spaced apart and thus adapted to accommodate one or more box units 5. These boxes 5 are of common construction, adapted to be assembled side by side and connected together in a well known manner. The leg portions 10 of the supporting member are also provided with marginal vertical flanges 12 provided with bolt or screw openings 13 for the purpose of registering with similar openings 14 in the attaching plates 15 carried by the box 5. Each of the box units 5 is also provided with the usual screw sockets 16 for the attachment of the customary face plate (not shown) flush with the finished plastered surface. Since the attaching plates 15 are formed with slots 15' and thereby adjustably secured to the box units 5 by the usual attaching screws 25, it is apparent that the boxes 5 may be shifted in or out with reference to the supporting member, according to the requirements of either old or new wall construction; that is to say, the device is adapted for use whether the plastering has been applied to the laths or not, the adjustment of the plates 15

adapting the outer edge of the box to be brought flush with the plastered surface in either case.

The legs 10 of the supporting device are provided with terminal notches or recesses 17, thereby forming forks adapted for engagement with a vertical strip of lath 18 designed to be nailed in the position illustrated, for securely holding and bracing the free ends of the legs 10. Two of the horizontal laths 7 are of course cut away the required distance, according to the number of box units 5 to be supported, and a pair of screw openings 13 being provided in each of the flanges 12 for each box unit to be carried. The vertical lath strip 18 is tacked to about four of the horizontal laths 7, said vertical strip being snugly fitted into the recesses 17 of both of the leg members 10, as illustrated in Figure 2.

The principal function to be served by a device of this character is not merely to allow the box 5 to be located in the desired position, but to firmly and securely support the same against any downward sagging tendency and also against the stresses which are applied in the plastering operation as well as later in the use of the electric switch or any pressure which might be casually exerted against the finished surface of the wall. All of these requirements are fully met in the present device, as is apparent from a mere inspection of Figure 2 of the drawing. Obviously, the supporting member cannot yield materially in a backward direction on account of the engagement of its forked terminals with the lath strip 18 carried by the horizontal laths 7, and also on account of the braced character of the leg portions 10 extending on a diagonal with reference to the intermediate portion 8; likewise, there can be very little tendency toward downward sagging, after the switch boxes are in position, since the supporting member is formed as a housing for the boxes which are fitted between the leg portions of the housing, and the intermediate portion of the latter is nailed flat and securely to the face of the stud or joist 6.

While I have illustrated and described what I now regard as one practical and efficient form of the construction, I desire to reserve the right to make all such changes or modifications as may fairly and properly fall within the scope of the appended claims.

What I claim is:

1. A supporting structure for switch boxes comprising, in combination with a stud, horizontal laths terminating short of said stud to provide space for said box, a vertical lath strip secured to the ends of said horizontal laths, and a supporting member having a contour conforming to the outlines of the switch box for embracing the same and having one side of said member secured to said stud, the other side of said member being provided with a retaining element in engagement with said vertical lath strip, said supporting member being formed with a flange resting against the rear face of a horizontal lath and having means of attachment to said box.

2. A supporting structure for switch boxes comprising, in combination with a stud, horizontal lath terminating short of said stud to provide space for said box, a vertical lath strip secured to the ends of said horizontal laths, and a U-shaped housing member partially enclosing the box, the intermediate portion of said housing being attached to said stud and the end portions of said housing terminating in forks engaging said vertical lath strip.

In witness whereof I hereunto affix my signature.

FREMONT S. KAY.