May 8, 1923. 1,454,722

L. BOUTIN

SWITCH BOX

Filed May 29, 1922

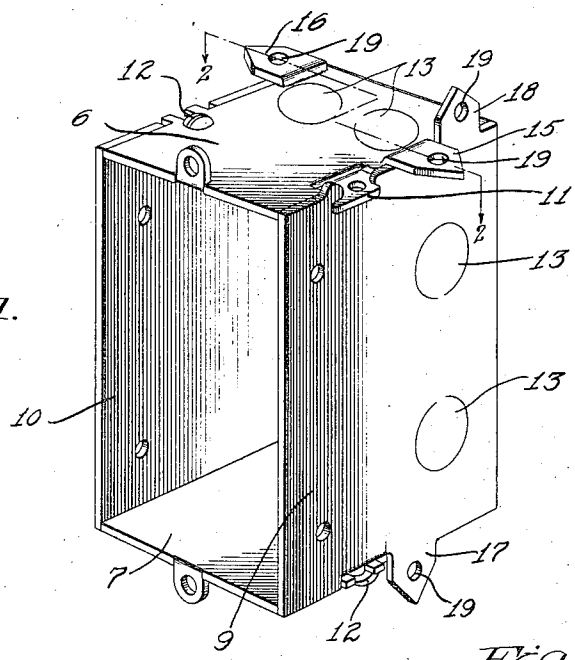


Fig. 1.

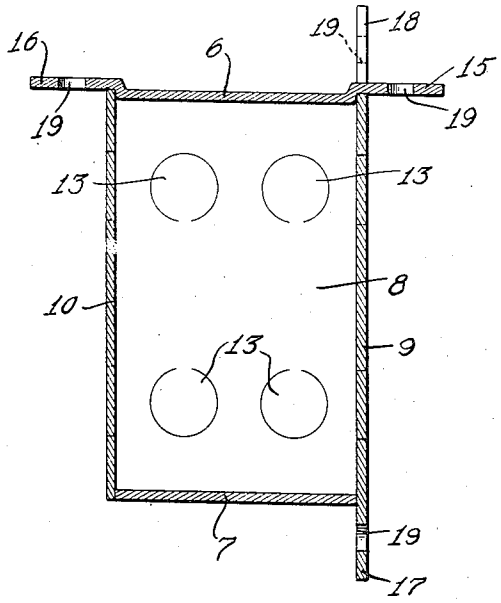
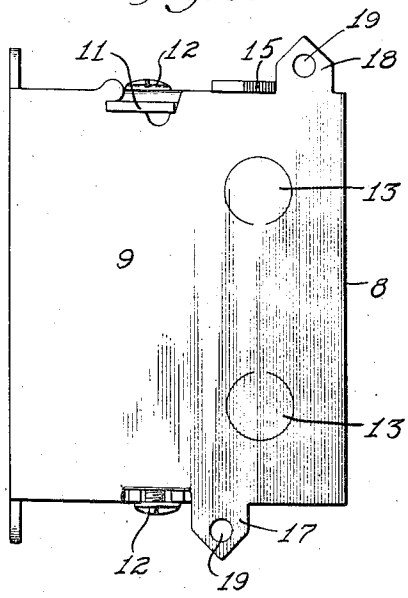


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

LEO BOUTIN, OF NEW YORK, N. Y.

SWITCH BOX.

Application filed May 29, 1922. Serial No. 564,365.

To all whom it may concern:

Be it known that I, LEO BOUTIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Switch Boxes, of which the following is a specification.

This invention relates to electric switch boxes for house wiring, and particularly to the means used for fastening such boxes in place.

Heretofore it has been the usual practice to fasten these boxes in position by means of screws which are inaccessible and difficult to insert so that the time required to mount such boxes has been unduly great. I avoid the difficulty formerly encountered by providing one side and one end of the box, each with a pair of pointed perforated spurs. These spurs lie in two planes at right angles to each other, and the box may be mounted against a vertical wooden stud or against a horizontal wooden member, extending, for example, between two studs, by driving one of the pointed spurs into the stud or horizontal member and then driving two nails, one through each of two others of the spurs. The nails are easily driven and the spur which enters the stud or brace serves to position the box and hold it in place while the nails are being driven, so that there is no danger that the box will shift as the nails are driven.

One practical embodiment of the invention is shown in the accompanying drawings, in which:—

Fig. 1 is a perspective view of the box.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a side elevation of the box, looking from the right with respect to Fig. 1.

The particular mode of connecting the sides and ends of the box together, and the the location of knock-outs, clips, screw holes for attaching the cover plate, and similar details, will obviously vary, and are not features of the present invention. I have chosen to illustrate the invention as applied to a well known commercial type of box, but recognize that it may be embodied in other boxes.

In the drawings, the box is shown as constructed of three pieces, a U-shaped plate which forms the ends 6 and 7 and the back 8, all in one piece, and two side plates 9 and 10. Each side plate is connected by an interlocking lug 11 and a clamp screw 12 to opposite ends of the box. For convenience in manufacture, each end has one lug connection and one screw connection. For example, as is clearly shown in Fig. 1, the top end 6 is connected by an interlocking lug 11 to the side 9, and by a screw connection 12 to the side 10, while the end 7 is connected by a screw connection 12 to the side 9. The connection of the end portion 7 to the side 10 is not visible in Fig. 1, but is made by means of an interlocking lug similar to the lug 11 above mentioned. The side plates 9 and 10 may have knock-outs 13 and the back 8 may also be formed with such knock-outs, this being a common construction in the art.

One end, 6, is formed with two laterally extending pointed spurs 15 and 16. These spurs are offset with reference to each other, and also are offset slightly from the plane of the end 6 so as to pass over the edges of the side plates 9 and 10. This last is merely for convenience in constructing the box. Similarly one side plate 9 is formed with two pointed spurs 17 and 18 at its opposite ends and these spurs also are offset with reference to each other. The spurs 15, 16, 17 and 18 are provided each with one nail hole, indicated by the numeral 19.

The offsetting of the two spurs on the side with reference to each other, and the similar offsetting of the two spurs on the end, accomplishes a number of useful purposes. It permits a series of similar boxes to be assembled in a line close to each other. For instance, where series of boxes are arranged in a horizontal line, the intervening space between the boxes is only the length of one spur, since in this relation the spur 16 of one box may lap past the spur 15 of the next. A similar advantage may be obviously be had where the boxes are mounted in vertical alinement by causing the spur 17 of one box to lap past the spur 18 of the next. This arrangement also offers a convenient means for permitting the spur 18 on the side and the spur 15 on the end of a single box to lap past each other. An incidental advantage of secondary importance is the fact that the offset relation of the nail holes 19 reduces the tendency for the nails to split the wood into which they are driven.

Since the box is reversible end for end, it may be attached to either side of a joist by driving the spur 15 into the joist and then driving nails through the holes in the spurs 17 and 18. Similarly the box may be at-

tached to the upper or lower side of a horizontal member by driving the spur 18 into the horizontal member and then driving nails through the holes in the spurs 15 and 16. This operation can be very quickly performed.

Obviously the invention is susceptible of embodiment in a number of specifically different forms, but the one illustrated clearly shows the inventive principle and is preferred because it conforms quite closely to the present standards.

To avoid any implied limitations, I wish specifically to call attention to the fact that the invention is not restricted in its utility for switch boxes, but may be used in any similar receptacle, such as a junction box or the like, customarily mounted in a wall and supported by a wooden stud or the like.

It is to be noted also that many of the advantages of the invention can be secured in a box having only two spurs, particularly those numbered 15 and 18 and located at the junction of two sides. While I have shown the spurs as mounted in the planes of the sides and ends of the box, for the reason that these are the two faces of the box which are customarily applied to the stud or brace when the box is mounted in position, the invention may be applied to any two walls of the box and, by describing it as applied to the side, I do not mean to exclude the possibility of applying the same idea to the end and back conjointly or to the side and back conjointly, for obviously this arrangement might be used where the back of the box is mounted against the supporting member. In certain of the claims, I use the term "wall" as a generic expression to include sides, ends and back or any boundary wall of the box.

What is claimed is:—

1. A switch box or the like provided with spurs projecting from the external surface thereof, said spurs being so formed and arranged as to be capable alternatively of being driven into a support, or of being engaged by a nail.

2. A switch box or the like provided with spurs projecting from the surface thereof, said spurs being formed with nail holes, and so arranged as to be capable alternatively of being driven into a support, or of receiving an attaching nail.

3. A switch box or the like formed with spurs projecting from two adjacent external surfaces of the box, and so formed and arranged that one spur may be driven into a support and another be engaged by a nail driven into said support.

4. A switch box or the like formed with spurs projecting from two adjacent external surfaces of the box, and so formed that either spur may be driven into a support, and the other be engaged by a nail driven into said support.

5. A switch box or the like formed with spurs projecting substantially in the planes of adjacent walls of the box, at the junction of said walls, said spurs being so formed and arranged as to be capable alternatively of being driven into a support, or of receiving an attaching nail.

6. A switch box or the like having two walls at right angles with each other, said walls being formed with spurs projecting substantially in the planes of the walls beyond the line of junction of the walls.

7. A switch box or the like having two walls at right angles with each other, said walls being formed with spurs projecting substantially in the planes of the walls beyond the line of junction of the walls, said spurs being pointed and apertured whereby they may alternatively be driven into a support or receive an attaching nail.

8. A switch box or the like formed with spurs projecting substantially in the planes of two adjacent walls of the box, said spurs projecting from both extremities of said adjacent walls and being provided with nail receiving apertures, and the spurs adjacent the junction of said walls being so formed and arranged as to be capable of being driven into a support.

9. A switch box or the like formed with spurs projecting substantially in the planes of two adjacent walls of the box, said spurs projecting from both extremities of said adjacent walls, and being provided with nail receiving apertures, the spurs at opposite extremities of each wall being offset relatively to each other, and the spurs adjacent the junction of said walls being so formed and arranged as to be capable of being driven into a support.

10. A switch box or the like formed with spurs projecting substantially in the planes of two adjacent walls of the box and formed integrally with the respective walls, said spurs projecting from both extremities of said adjacent walls, and being provided with nail receiving apertures, the spurs at opposite extremities of each wall being offset relatively to each other, and the spurs adjacent the junction of said walls lapping past each other and being so formed and arranged as to be capable of being driven into a support.

In testimony whereof I have signed my name to this specification.

LEO BOUTIN.