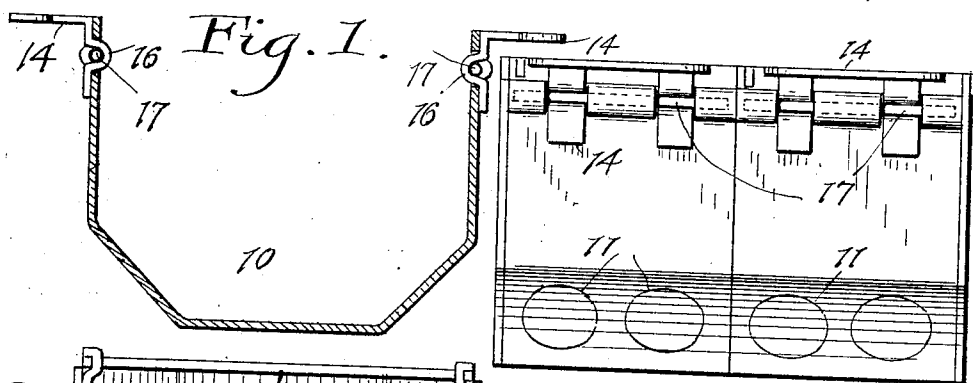
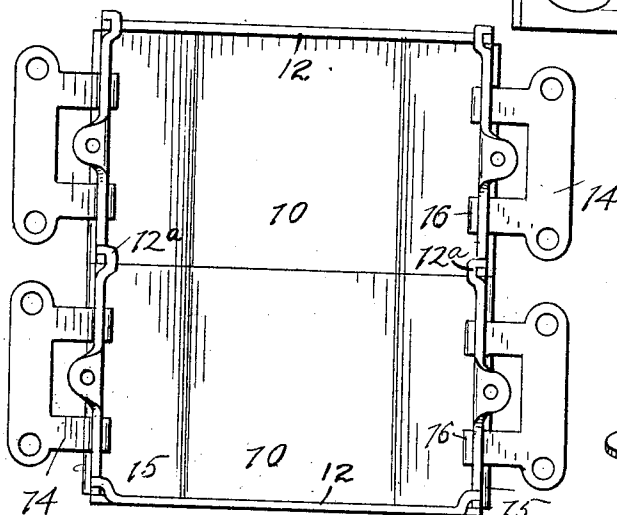
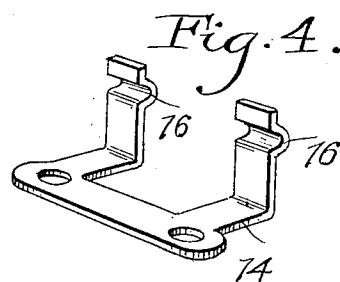
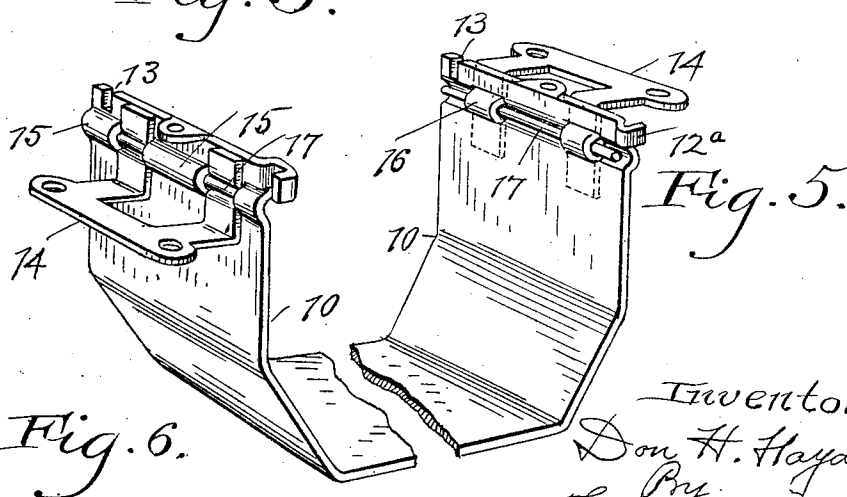


D. H. HAYDEN.
 SWITCH BOX.
 APPLICATION FILED DEC. 18, 1918.

1,328,993.

Patented Jan. 27, 1920.



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UNITED STATES PATENT OFFICE.

DON H. HAYDEN, OF CLEVELAND, OHIO.

SWITCH-BOX.

1,328,993.

Specification of Letters Patent.

Patented Jan. 27, 1920.

Application filed December 18, 1918. Serial No. 267,226.

To all whom it may concern:

Be it known that I, DON H. HAYDEN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Switch-Boxes, of which the following is a full, clear, and exact description.

This invention relates to certain new and useful improvements in wall or switch boxes.

A switch box is composed of one or a plurality of body units assembled or fastened together at their edges, and two end plates. This box, as is well known, receives a wall switch and is set into the wall, and the box is fastened to the wall by a series of brackets secured to the sides of the box by small screws.

As these boxes are usually made in large quantities, it is important that the number of operations in producing and assembling them, and the time required in the assembly be reduced to the greatest possible extent, and that the box be so designed that the waste of material is reduced to a minimum.

It is the principal object of the present invention to provide an improved construction involving the fastening to the sides of the box of the brackets which are utilized in fastening the box to the wall. More specifically considered, the invention aims to do away with the necessity for the fastening screws so as to eliminate the tapping of holes and the tedious and time consuming labor of threading the screws into place and tightening them.

This object is attained by my invention wherein the provision for holding the brackets in place is made when the brackets and body pieces of the box are stamped from the sheet metal, this being done in such a manner that the bracket can be fastened in place by a wire or brad.

The invention may be briefly summarized as consisting in certain novel details of construction and combinations and arrangements of parts which will be described in the specification and set forth in the appended claims.

In the accompanying sheet of drawings illustrating the preferred form of my invention, Figure 1 is a vertical sectional view through a box; Fig. 2 is a side view of a two-unit box; Fig. 3 is a plan view of the

same; Fig. 4 is a perspective view of one of the brackets; and Figs. 5 and 6 are fragmentary perspective views of the box showing two ways in which the brackets may be positioned with the same fastening or securing means.

The box is composed of one or any number of body units 10, which are usually substantially U-shaped, with knock-out plugs 11 for the conductors, and two end plates 12. The sections may be fastened together in any suitable manner, but preferably by means of interlocking integral lugs 12^a and notches or openings 13 arranged at the corners and at the bottom of the adjoining parts whether the adjoining parts are counterpart body units or a body unit and end plate. The particular manner of fastening together the different sections of the box herein illustrated, constitutes the subject matter of a companion application filed by me January 12, 1917, Serial No. 141,920.

To secure the box to the wall, brackets 14 are utilized, these brackets being in the main of customary construction, though departure is made from the customary construction to enable these brackets to be attached to the box in the manner constituting the subject matter of this invention.

In accordance with my invention, the box and the bracket are, when stamped from the sheet metal, provided with bowed or displaced portions, and the box is notched to receive the displaced portion or portions of the bracket so that when the bracket is placed up alongside the box a wire or brad may be inserted through the displaced portions in front of one and behind the other in such a manner as to fasten the bracket in place. The number and arrangement of the displaced portions on the bracket and box may be varied, and may be other than herein shown, but in practice I prefer the arrangement or design illustrated in the drawings.

It will be seen that in the present embodiment of the invention each body unit 10 has near each top edge three outwardly bowed or displaced portions 15, and is notched out between these portions, the distance between the displaced portions 15 being equal to the width of the legs of the bracket, and so positioned that the legs of the bracket will be received between the outwardly bowed portions 15. Likewise the two legs of the brackets are provided near their free ends

with bowed or looped portions 16 which are designed to be extended into the notches between the bowed portions 15 of the switch box unit, when the bracket is placed against the outer side of the latter, so that when the brackets are placed in position, the axes of the bowed portions are in alinement. Then to fasten the bracket to the box it is only necessary to insert endwise through the opening formed by the interlocking or inter-fitting parts of the bracket and box respectively, a securing pin 17 which may be a wire or a brad. This securely fastens the bracket to the box, and when the box is once assembled, the adjoining parts thereof prevent the pin being displaced in an endwise direction, though ordinarily the pin fits so tightly that there is no tendency for endwise movement.

This construction admits of the bracket being secured to the box with its top face flush with the top of the box, as illustrated in Figs. 1, 2, 3 and 5, or to be inverted so that its face which is designed to engage the wall is some distance below the top of the box, as illustrated in Fig. 6. It will be understood that whether the brackets are to be secured as in Fig. 5, or as in Fig. 6, will depend upon whether the brackets are to go inside or outside of the plastering.

As is obvious, the brackets may be secured on each side of each of the body units 10, or to only part of them, as circumstances require.

As before stated, the displaced pin-receiving portions of the box and brackets are formed when the parts are stamped from sheet metal, so that no separate or special operation is required, and the construction is such that the parts may be assembled and the brackets secured in place very quickly, and as a result, these boxes can be produced and assembled at less cost than those wherein the brackets are secured in place by screws.

As before stated, modifications or changes may be made in the details of the fastening, such for example, as the arrangement and number of displaced portions of the box and bracket, and I aim in my claims to cover all modifications which do not involve a departure from the spirit and scope of my invention in its broadest aspect.

Having described my invention, I claim:

1. In a switch box, a wall bracket extending alongside the box, one of the parts having an opening and the other part having a looped or displaced part projecting through the opening, and a fastening pin extending parallel to the side of the box, through the

looped portion, and holding the bracket in place.

2. A switch box having a wall bracket, the box having an opening, and the bracket having a displaced or looped portion projecting through the opening, and a pin extending alongside the box through the looped portion to fasten the bracket in position.

3. A switch box having a plurality of wall brackets, the box having a pair of spaced openings and the bracket having a pair of spaced displaced portions extending through the openings, and a fastening pin lying alongside the box in front of one part and behind the other through the displaced portions of the bracket.

4. A switch box having a wall bracket, the box and bracket having matching displaced portions with the displaced portion or portions of one part projecting through the wall of the other part, and a fastening pin extending alongside the box and extended in front of and behind the displaced portions of the box and bracket to fasten the latter to the box.

5. A switch box having a wall bracket, the side of the box having a plurality of spaced outwardly bowed portions, and openings between the bowed portions, the bracket having a plurality of inwardly bowed portions extending into said openings, and a fastening pin extending in front of and behind the bowed portions respectively to fasten the bracket to the box.

6. A switch box, having a wall bracket, the side of the box having an opening and the bracket having a portion extending along the outer side of the box and provided with a displaced or looped portion extending through the opening, and a pin extending along the inner side of the box through the displaced or looped portion to fasten the bracket in position.

7. A switch box, having a wall bracket, the side of the box having outwardly displaced portions and openings between the same, the bracket extending along the outer side of the box and having displaced portions extending through said openings, and a fastening pin on the inner side of the box and engaging the inner sides of the displaced portions of the box and the outer sides of the displaced portions of the bracket.

In testimony whereof I hereunto affix my signature.

DON H. HAYDEN.