Aug. 4, 1931. T. R. MARTIN 1,817,573

TERMINAL BOX MOUNTING FOR ELECTRIC SWITCHES

Filed April 9, 1928

Fig. 1.

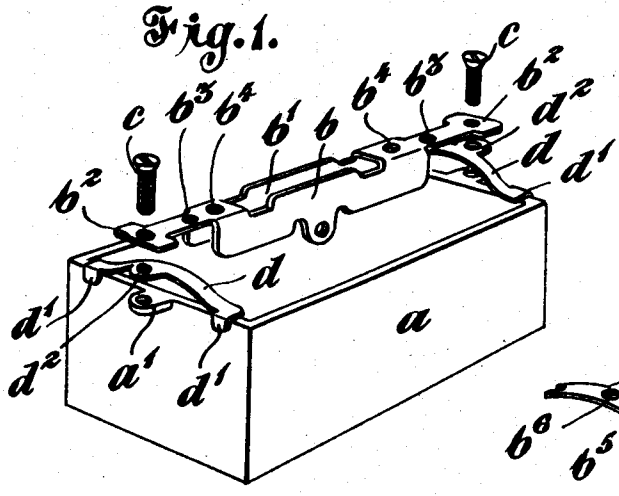


Fig. 2.

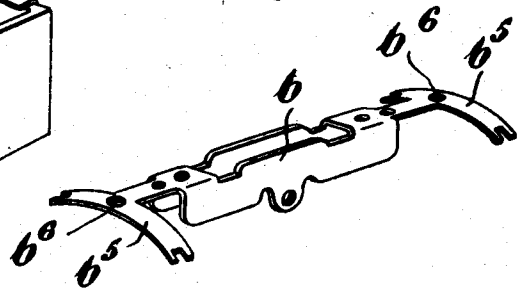


Fig. 3.

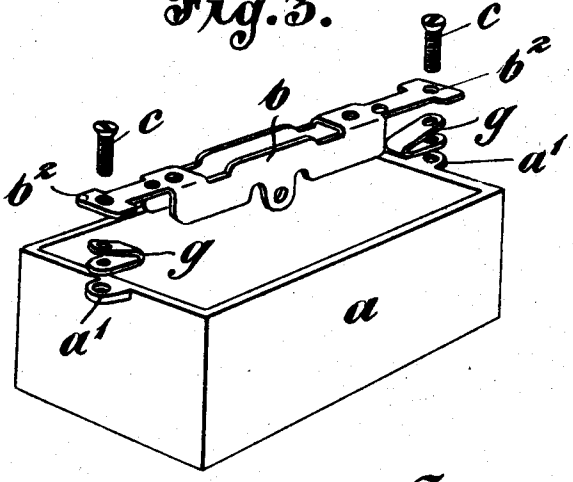


Fig. 4.

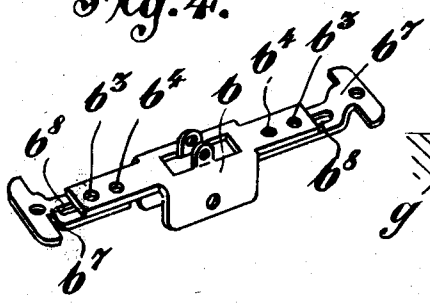
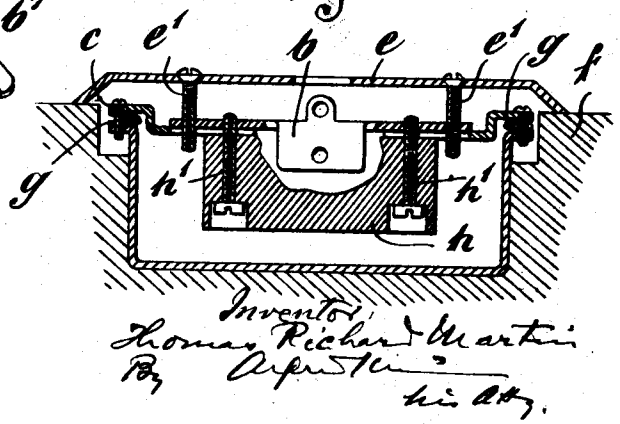


Fig. 5.



Inventor:
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UNITED STATES PATENT OFFICE

THOMAS RICHARD MARTIN, OF TYSELEY, BIRMINGHAM, ENGLAND

TERMINAL BOX MOUNTING FOR ELECTRIC SWITCHES

Application filed April 9, 1928. Serial No. 268,648.

My invention has relation to a terminal box mounting for an electric switch, more particularly a mounting of the type wherein the switch mechanism is adapted to be suspended from a bridge member which is adjustable in relation to the box, and to which a cover plate is adapted to be attached, the said bridge by its adjustment providing for the corresponding adjustment of the cover plate in relation to the box, for obtaining a proper setting of the former in relation to the adjacent wall surface.

According to the present invention, there is provided a terminal box mounting for an electric switch having resilient media incorporated between the extremities of the bridge and adjacent parts of the box, in association with screws or screw members adapted to positively adjust the bridge in relation to the box, the said adjustment being maintained by the spring media.

The spring media may be separate from or independent of the bridge proper, and may be of arc or U-shaped formation, adapted to bear upon the underside of the bridge and upper edge or adjacent part of the box. Or, alternatively, said spring media may be integral with the bridge, as for instance, lateral arc-shaped arms incorporated at the bridge extremities adapted to bear on the upper edge of the box, or U-shaped extensions may be provided adapted to come between the bridge and adjacent upper edge of the box. The adjustment screws are adapted to pass through apertures in the bridge into threaded apertures provided in lugs at or adjacent the upper edge of the box. The bridge may be longitudinally adjustable to accommodate itself to boxes of differing longitudinal dimensions.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended illustrative sheet of drawings, upon which:—

Figure 1 is a perspective view of a box, showing the bridge and associate components about to be assembled.

Figure 2 is a perspective view of a modified form of bridge.

Figure 3 is a perspective view corresponding to that aforestated with reference to Figure 1, only showing slightly modified components.

Figure 4 shows in perspective a bridge having longitudinally adjustable characteristics.

Figure 5 is a vertical sectional elevation showing the box installed within a wall, an adjustable bridge, and cover plate in position.

In the drawings *a* is the box and *b* the bridge, stamped into channel shape, having an aperture *b*1 wherein the actuating mechanism of the switch is adapted to operate in well known manner. The extremities *b*2 of the bridge are of T formation, and provided with plain perforations to receive screws *c* adapted to engage tapped apertures in lugs *a*1 on the box *a*. *d* are arcuate blade springs having tongues *d*1 adapted to overlap the edges of the box, and a central lip or tongue *d*2 provided with a plain perforation for the reception of the fastening screws *c*. It will be appreciated that in use when the parts are assembled, the bridge may be adjusted in relation to the box by rotating the screws *c*, and such adjustment is automatically maintained by the springs *d*. The cover plate *e* (see for example Figure 5) is attached to the bridge *b* by means of fastening screws *e*1 engaging apertures *b*3. The switch mechanism is attached to the bridge *b* by screw members engaging the tapped apertures *b*4.

Further, it will be appreciated that by adjusting the bridge *b* in relation to the box *a*, the cover plate may be ultimately set in correct relation to the adjacent wall surface *f* (see particularly Figure 5).

In the modification shown in Figure 2, arcuate spring members *b*5 are provided integral with the extremities of the bridge member *b*, and are forked at their extremities to engage the upper edge of the box *a*. The screws *c* pass through the plain apertures *b*6 into the tapped apertures in the box *a*.

In the modification shown in Figure 3, the bridge *b* is adapted to be resiliently spaced from the box *a* by means of U-shaped spring members *g*, the limbs of which are provided with plain apertures for the passage of the screw members *c*.

Alternatively, instead of providing separate or independent members *g*, such members may be formed integral with the extremities of the bridge *b*. Coil springs may be used encircling the screws *c* for the purpose of this invention.

In the arrangement shown in Figure 4, the bridge *b* is of a three-part character involving a centre main part (indicated by the reference letter *b*) and terminal extremities *b7*, capable of being slid or displaced longitudinally in relation to the centre part *b* for adjustment of the overall length of the bridge. When the fastening screws *h1* (Figure 5) associated with the switch base *h* are tightened, the elements *b5 b7* (Fig. 4) are drawn together in their position of adjustment, the said parts *b5* having elongated slots *b8* within which the pins *h1* are adapted to operate.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A terminal box mounting for an electric switch, comprising a bridge member having apertures at its extremities, a box for accommodating the switch mechanism screws adapted to engage the apertures in the bridge member and threaded apertures in ends of said box, arcuate spring arms integral with the bridge member adapted to co-operate with the upper edges of the ends of the box, and means for connecting a cover plate to said bridge member.

2. A switch box, a switch supporting bridge member, fastenings connecting the bridge member with the switch box and permitting movement of the former toward and from the latter, and a spring yieldably supporting said bridge member upon said switch box, said spring being in the form of a normally bowed leaf formed integrally with the bridge member.

3. A switch box, a switch supporting bridge member, fastenings connecting the bridge member with the switch box and permitting movement of the forwer toward and from the latter, and a normally arched leaf spring engaged at its ends with the switch box and engaged medially with the bridge member whereby the bridge member is yieldably supported upon the switch box.

4. A switch box, a switch supporting bridge member, fastenings connecting the bridge member with the switch box and permitting movement of the former toward and from the latter, and a normally arched leaf spring engaged at its ends with the switch box and engaged medially with the bridge member whereby the bridge member is yieldably supported upon the switch box, the ends of said leaf spring being provided with formations for cooperation with the switch box to prevent lateral movement of the spring relative to the switch box.

In witness whereof I have hereunto set my hand.

THOMAS RICHARD MARTIN.