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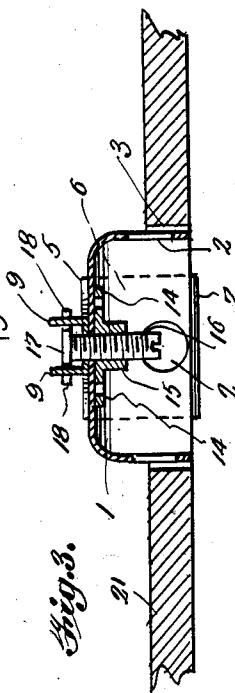
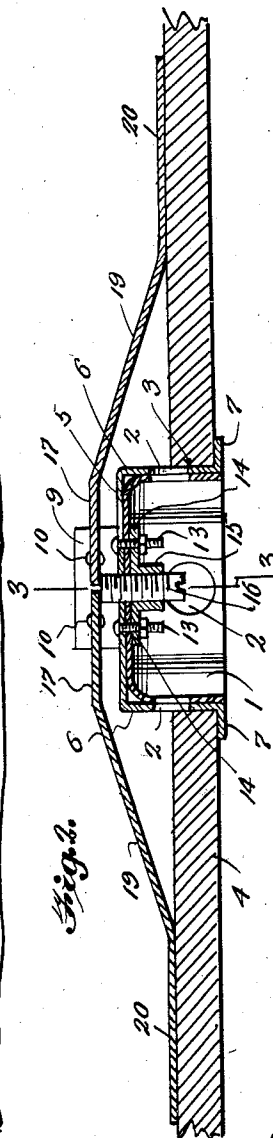
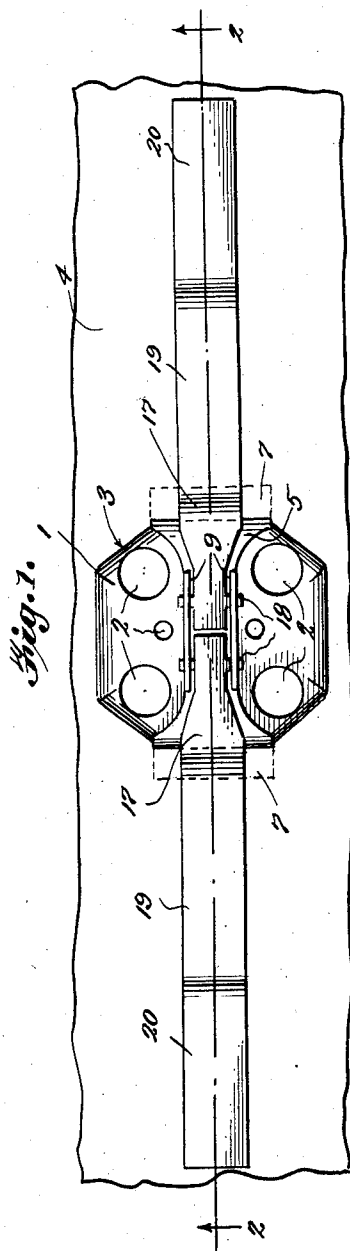
E. H. LINDSTROM

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OUTLET BOX SUPPORT

Filed May 15, 1944

2 Sheets-Sheet 1



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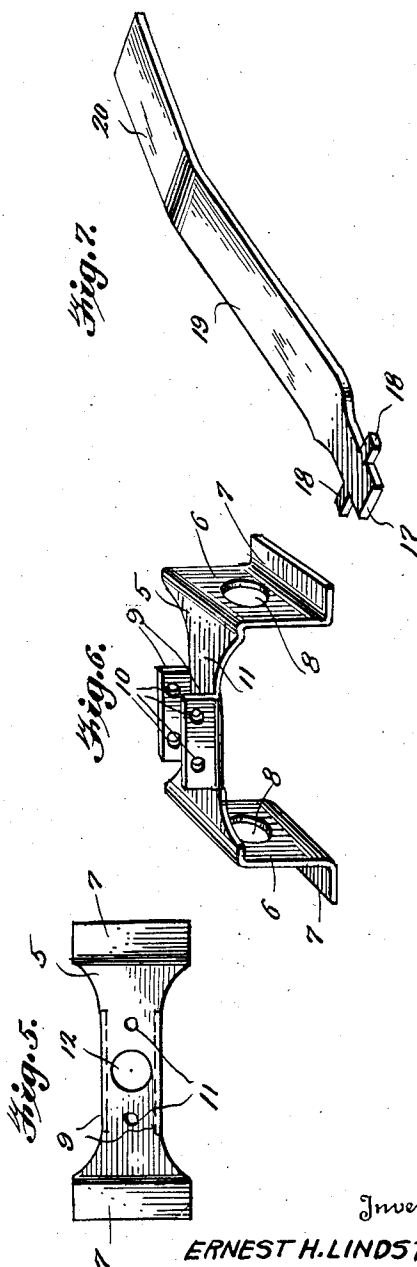
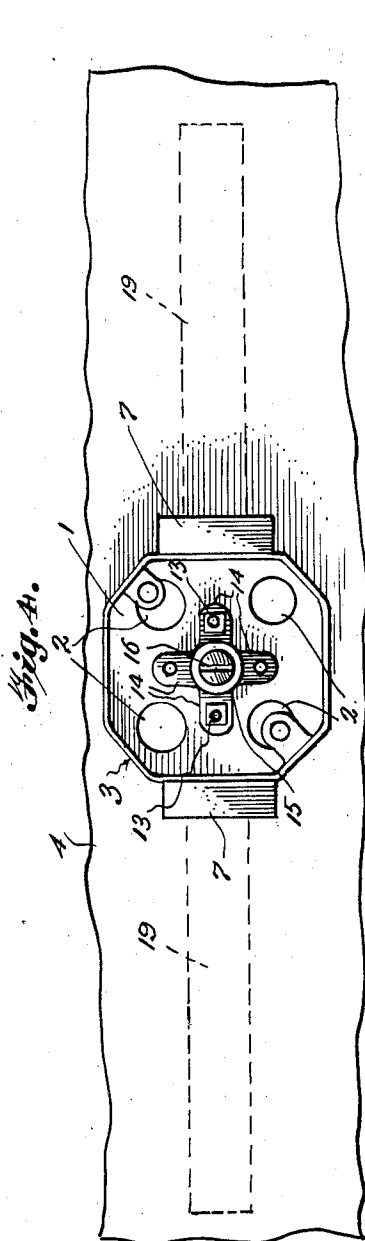
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OUTLET BOX SUPPORT

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6 Claims. (Cl. 220—3.6)

This invention relates to an outlet box of the type used for installing electric wiring in a house or other building, and it is one object of the invention to provide an outlet box with supporting means of such construction that the box may be mounted through an opening in a ceiling or wall of a room with its lower or outer end flush with the ceiling or wall.

Another object of the invention is to provide the outlet box with mounting means including arms which are pivotally mounted so that they may be swung to a folded position allowing the arms and box to be thrust through an opening into place and the arms then swung to operative position transversely of the box for bearing against the upper surface of a ceiling or inner surface of a wall at opposite sides of the box where they serve to firmly hold the box in place.

Another object of the invention is to provide the box with a screw or equivalent member mounted for movement to a position in which it will engage inner ends of the arms and tilt the arms to a position in which they will firmly hold the box in place until the screw is loosened to permit removal of the box.

Another object of the invention is to provide securing means of such construction that it may be applied to an outlet box of conventional construction, thus making it unnecessary to provide a box of special construction in order to use the improved securing means.

Another object of the invention is to provide securing means which is simple in construction, easy to apply to an outlet box, and capable of being manufactured at small cost.

In the accompanying drawings:

Fig. 1 is a top plan view showing an outlet box mounted through an opening in a ceiling by the improved securing means.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken at right angles to Fig. 2, on the line 3—3 thereof.

Fig. 4 is a bottom plan view of the outlet box and securing means.

Fig. 5 is a bottom plan view of a yoke which straddles the outlet box and carries securing arms.

Fig. 6 is a perspective view of the yoke.

Fig. 7 is a perspective view of one arm.

The outlet box 1 to which the improved securing means has been shown applied is of conventional formation and provided with the usual weakened portions 2 which are to be selectively removed in order that conductor wires or cables

may enter the box. The box, when in use, is passed through an opening 3 formed in a ceiling or wall 4, where it is held flush with the lower or outer surface of the ceiling or wall by the improved supporting means.

This supporting means includes a yoke 5 formed of sheet metal and has arms 6 terminating in outstanding feet or flanges 7 and of such length that when the yoke is disposed in straddling relation to the box, the feet will project laterally from opposite sides of the box flush with the open lower end thereof. Openings 8 are formed in the arms to register with the weakened portions of side walls of the box along which the arms extend and allow wires to be passed through the arms and into the box when portions 2 of the box which register with the openings 8, are knocked out. Flanges 9 extend upwardly from opposite sides of the bridge of the yoke midway the length thereof and these flanges are formed with openings 10. Openings 11 are formed through the bridge of the yoke adjacent opposite ends of the flanges 9 and between the flanges the yoke is formed with an opening 12 for registering with an opening formed centrally of the head or closed end of the box.

When the yoke is applied to the box 1, it straddles the box and is held in place thereon by bolts 13 which pass through the openings 11 and also through openings formed in the head of the box with their inner end portions passing through openings in opposite arms 14 of a socket 15. This socket, which is internally threaded, is aligned with the opening 12 formed midway the length of the bridge of the yoke 5 and since these openings register with an opening formed centrally of the head of the box, an adjusting screw 16 may be threaded through the sleeve or socket 15 with its upper portion protruding through the opening 12 of the yoke for engagement with inner ends of arms 17. These arms are formed of stiff metal and are disposed in opposed relation to each other and provided, near their inner ends, with side ears or pins 18 which pass through the openings 10 of the flanges 9 and mount the arms or bars for swinging movement from a raised or folded position to an extended position in which they are aligned and project from opposite sides of the outlet box. When the bars 17 are folded they extend longitudinally from the outlet box and will pass through the openings 3 in the ceiling as the box is thrust upwardly through the opening. As the box is thrust upwardly into place and the feet 7 of the yoke engage the outer face of the ceiling, the arms or bars drop to the extended

position, and since the bars are bent so that portions 19 thereof extend diagonally, as shown in Fig. 2, the outer free end portions 20 of the bars will have flat contacting engagement with the upper or inner face of the ceiling. The set screw 5 16 is then turned upwardly through the sleeve or socket 15 and, as its upper end engages inner ends of the bars 17, the bars will be tilted about their pivots and cause the ceiling to be firmly 10 gripped between the feet 7 of the yoke and the ceiling-engaging portions of the bars. Therefore, the outlet box will be firmly secured flush with the outer surface of the ceiling. If it is desired to remove the outlet box, it is merely necessary to unscrew the set screw and the box may 15 be drawn downwardly through the ceiling opening, the bars 17 tilting upwardly during this movement of the box.

Having thus described the invention, what is claimed is:

1. An outlet box for passing through an opening in a ceiling, a mounting member carried by said outlet box and having abutments projecting laterally from the outlet box in position to engage the lower surface of a ceiling, arms pivoted to said mounting member and movable from folded position longitudinally of the box to extended position in which they project laterally from sides of the outlet box, and means operating through the outlet box in position to engage inner ends of said arms and swing the arms to a position 30 to clamp the upper surface of the ceiling between the arms and said abutments and firmly holding the outlet box in place.

2. An outlet box for passing through an opening in a ceiling, said box having side walls and a head at one end, a yoke straddling said box and having a bridge extending across the head of the box and arms extending along walls thereof and provided with outstanding flanges projecting from opposite sides of the box in position to engage the under surface of a ceiling, bars pivoted adjacent their inner ends to said yoke and movable from folded position longitudinally of the box to extended position in which the arms project laterally from the box in position to clamp the upper surface of the ceiling, and an adjusting screw passing through the head of the box in position to engage inner ends of the arms and swing the arms toward the clamping position. 40

3. An outlet box for passing through an opening in a ceiling, said box being open at one end and having a head and side walls, a yoke straddling said box and having a bridge and side arms 55 provided with outstanding feet projecting from sides of the box, bearing members extending upwardly from the bridge intermediate the length thereof, said bridge being formed with an opening between the bearing members registering with an opening in the head of the box, bars pivotally mounted between the bearing members and having inner ends disposed over the opening of the bridge, said bars being movable from raised position to lowered position and when 60 lowered extending in alinement and projecting from opposite sides of the box, an internally

threaded sleeve mounted in said box in alinement with the openings in the yoke and the head of the box, and a screw threaded through said sleeve and passing through the alined openings of the box and yoke and when screwed upwardly engaging inner ends of said bars and tilting the bars and moving free outer end portions thereof into position to engage the upper surface of a ceiling and clamp the ceiling between the arms and the feet of the yoke.

4. An outlet box for passing through an opening in a ceiling, said box having a head and side walls, a yoke straddling said box and provided with feet projecting externally from the box in position to engage the lower face of a ceiling at sides of an opening through which the box passes, flanges at opposite sides of said yoke projecting upwardly therefrom and formed with openings spaced from each other longitudinally thereof, the yoke being formed with an opening located between said flanges and alined with an opening in the head of the box, an internally threaded socket in said box registering with the opening in the head of the box, fasteners passing through the yoke and the head of the box and through portions of the socket and firmly securing the yoke and socket to the head of the box, bars having inner end portions disposed between said flanges and provided with laterally extending pins spaced from their inner ends and engaged in the openings of the flanges and pivotally mounting the bars for movement from an extended position in alinement with each other to folded position in which they extend upwardly from the box, and a set screw threaded through said socket with its upper end passing through openings in the yoke and engaging the inner ends of said bars to tilt the bars and move the free ends of the bars downwardly to an extended position to clamp a ceiling between the bars and the feet of said yoke and firmly hold the box in place through the opening in the ceiling.

5. An outlet box, a yoke carried thereby and having abutment members in position to engage the lower surface of a ceiling at sides of an opening through which the box is passed, bars pivoted to said yoke movable from a folded position in which they extend upwardly from the box to extended position in which the arms project laterally from the box in position to engage the upper face of a ceiling, and means operable from within said box for releasably securing said bars in extended position.

6. An attachment for an outlet box comprising a yoke of dimensions adapting it to straddle a box, said yoke being provided with outstanding abutments to engage the under face of a ceiling at opposite sides of an opening through which the box is passed, bars pivoted to said yoke and movable from folded position in which they extend upwardly from the box to extended position in which they project laterally from the yoke and the box, a socket adapted to be mounted in the box, and a set screw threaded through said socket and engaging inner ends of said arms to secure the arms extended.

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