May 3, 1932. W. H. OWEN 1,856,356

ADJUSTABLE OUTLET BOX HEADER

Filed May 27, 1930

Fig. 1.

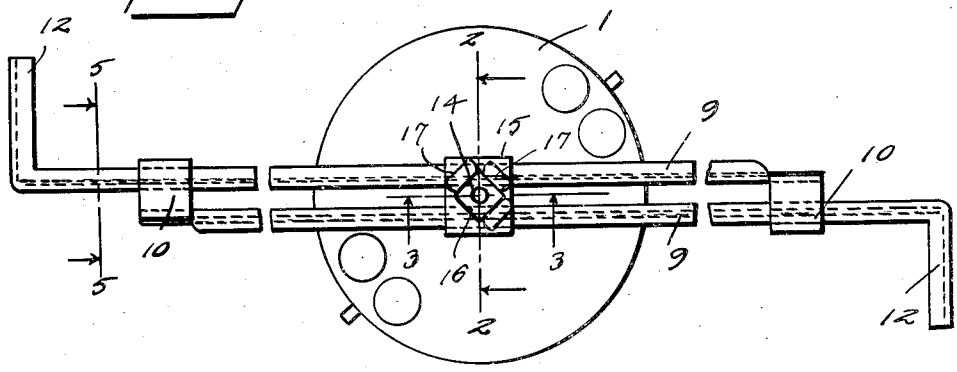


Fig. 2.

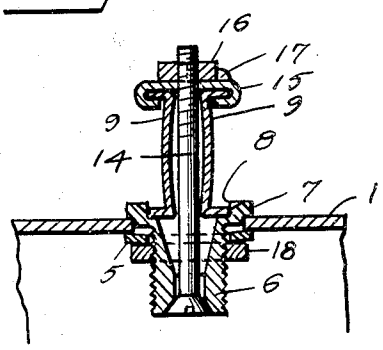


Fig. 3.

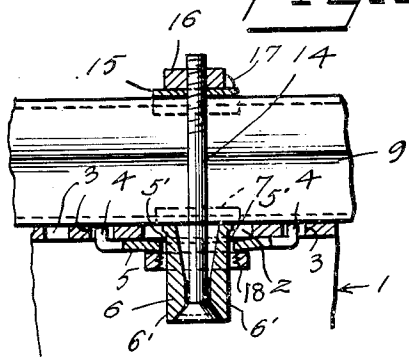


Fig. 4.

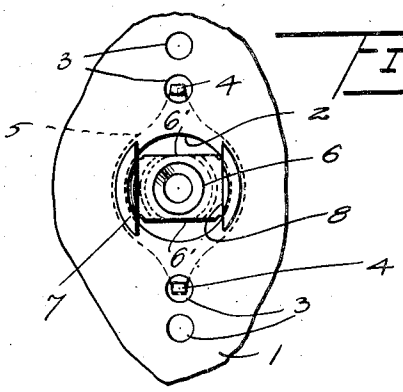
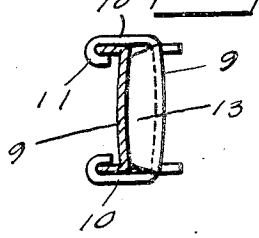


Fig. 5.



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UNITED STATES PATENT OFFICE

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ADJUSTABLE OUTLET BOX HEADER

Application filed May 27, 1930. Serial No. 456,244.

This invention relates to improvements in mounting or supporting means for electric outlet boxes.

The primary object of the present invention is to provide an improved means for mounting an outlet box in position between a pair of joists or a pair of studding, the said mounting means being so designed that it may be readily adjusted to the space between the joists or studding and after such adjustment and after the device has been mounted in position the outlet box may be shifted thereon over a relatively wide range, to locate it at the desired point between the structures which support the device.

Another object of the invention is to provide a device which is of simple, strong and durable construction and which employs a small number of parts.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a rear view of the device embodying the present invention showing the manner in which an outlet box is attached thereto.

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

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a plan view of the top of an outlet box showing the particular form of stud employed for coupling the box and the support together.

Figure 5 is a sectional view taken on the line 5—5 of Figure 1.

Referring more particularly to the drawings wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates generally an outlet box of the usual round construction, which box is of standard type and in itself forms no part of the present invention. These boxes, as is, of course, well known, have a punch-out plug in the center thereof which, when removed, forms the central aperture 2. At opposite sides of this aperture there are formed the small apertures 3 each of which engages a laterally turned ear 4 of a washer 5 placed upon the inside of the casing and overlying the aperture 2.

There is extended through the aperture 2 and through the washer 5, from the outside of the box, a threaded tubular stud 6, the outer end of which is provided with a relatively large head 7 which is cut out to form a wide kerf 8. As shown in Figures 2 and 4 the head 7 of the stud 6, being too large to pass through the aperture 2 engages the outside of the box so that the bottom of the kerf 8 is in substantially the same plane as the outer surface of the box. As is also shown in Figures 2, 3 and 4, the stud has two opposed, unthreaded and flat faces 6′ with which similar straight edges 5′ of the washer 5 engage when the latter is in place, so that the stud is held against turning.

Extending transversely of the stud head 7 and lying in the kerf 8, is a pair of shallow steel channel bars, each of which is indicated by the numeral 9. These bars are placed back to back as shown and each has formed at one end and at the upper and lower edges the laterally extending ears 10 which project across the flange of the adjacent bar and are turned back to form an engaging hook 11 which receives the flange of the adjacent bar shown in Figure 5. Each of the bars 9 thus carries a pair of hooked ears which slidably engage the flanges of the adjacent bar so that the two bars are held in longitudinally adjustable relation.

The other end of each bar 9 is bent to extend oppositely from the ears which it carries to form a foot 12. By forming a right angularly directed tongue 13 at the end of each of the bars adjacent the ears 10, which engages against the back of the adjacent bar, the two bars are maintained in spaced par-

allel relation. This permits of the extension therebetween of a bolt 14 which is inserted through the stud 6 from the interior of the box 1 and extends upwardly beyond the upper edges of the bars 9 as shown in Figures 2 and 3.

Slidably mounted upon the upper edges or flanges of the bars 9 is a saddle 15 which carries a nut 16, held against rotation thereon by suitably positioned lugs 17. The stud 6 is threaded as shown and there is engaged thereon a nut 18 which, when drawn up, bears against the washer 5 and thus secures the same and the stud against movement. This stud is of sufficient length to permit of the attachment thereto of a supporting bar forming a part of an electrical fixture so that the header in addition to carrying the outlet box will also carry the electric fixture which is mounted adjacent thereto. It will thus be seen that in the mounting of the outlet box supporting device which may be termed a header, the bars 9 are first placed in the proper position between a pair of studding or a pair of joists after which the back of the outlet box may be placed against the outwardly facing edges of the bars and the bolt 14 extended therethrough to project between the bars in the manner shown in Figures 2 and 3. The threaded end of the bolt is passed through the saddle 15 and the nut 16 is then placed in position upon the saddle between the lugs 17 after which the bolt may be rotated by means of a screw driver or similar instrument so as to be made to engage the nut and thus draw the box into position against the supporting bars, the bars positioning in the kerf 8 formed across the head of the stud 6, in the manner previously described and as shown.

From the foregoing description it will be readily seen that with an outlet box header of the character herein described the outlet box may be easily and quickly placed in the proper position and this work may be done by an inexperienced mechanic because of the simplicity of the construction of the device.

Having thus described my invention, what I claim is:

1. A support for an electric outlet box having an aperture through the top thereof, comprising a pair of channel bars disposed in back to back parallel relation, a pair of ears projecting laterally from one end of each of said bars and extending across and slidably engaging over the flange of the adjacent bar, means carried by each bar adjacent said ears for engaging the back of the adjacent bar to maintain the bars in spaced parallel relation, each of said bars having its other end turned to provide a supporting foot, a stud extensible through said outlet box aperture from the exterior thereof and having a head adapted to engage the edge of said aperture and provided with a broad kerf designed to receive said bars when the same are disposed on edge transversely of the box, a saddle extending across the edges of the bars opposite the box and having sliding engagement with the bars, a bolt extending through said stud and passing between said bars to extend through said saddle, and a securing nut mounted upon the saddle and engaging the bolt.

2. A support for an electric outlet box having an aperture through the body thereof comprising a pair of bar members disposed in spaced parallel relation, means maintaining said bars in said spaced relation and connecting them for relative longitudinal movement, means facilitating the connection of the remote ends of the bars to a support, a threaded longitudinally apertured stud within the box and having one end secured in the aperture in the top thereof, said bars extending across the top of the box and across the aperture, a screw extending through the stud and between the bars, and a saddle mounted to slide on the bars and having the adjacent end of the screw secured thereto.

3. A support for an electric outlet box having an aperture through the top thereof comprising a pair of bar members disposed in spaced parallel relation, means maintaining said bars in said spaced relation and connecting them for relative longitudinal movement, said bars being disposed on edge transversely of the top of the box, means facilitating the connection of the remote ends of the bars to a support, a lateral flange formed along the longitudinal edge of each bar remote from the box, a threaded hollow stud extending into the box through the aperture and having a head engaging the outer edge of the aperture and further having a kerf thereacross receiving said bars, a nut threaded on the stud within the box to secure the stud against movement in the aperture, a saddle mounted on said bars and having opposite inturned flanges slidably engaging said bar flanges, and an elongated member extending through the stud and between the bars and connected with said saddle.

4. A support for an electric outlet box having an aperture through the top thereof comprising a pair of bar members disposed in spaced parallel relation, means maintaining said bars in said spaced relation and connecting them for relative longitudinal movement, said bars being disposed on edge transversely of the top of the box, means facilitating the connection of the remote ends of the bars to a support, a lateral flange formed along the longitudinal edge of each bar remote from the box, a threaded stud within the box and having one end secured in said aperture, a saddle mounted on and connecting said bars and having opposite inturned flanges slidably engaging under said bar flanges, and an elongated member connected to and extending from said stud between the

bars and having connection with said saddle to move therewith.

5. A support for an electric outlet box having an aperture through the top thereof comprising a pair of bar members disposed in spaced parallel relation, means maintaining said bars in said spaced relation and connecting them for relative longitudinal movement, said bars being disposed on edge transversely of the top of the box, means facilitating the connection of the remote ends of the bars to a support, a lateral flange formed along the longitudinal edge of each bar remote from the box, a threaded hollow stud extending into the box through the aperture and having a head engaging the outer edge of the aperture and further having a kerf thereacross receiving said bars, said stud having the threaded portion provided with a smooth flat longitudinally extending surface, a washer surrounding the stud and positioned against the inside of the box and further having a flat inner edge portion engaging the said smooth surface of the stud, and a laterally turned finger at its outer edge engaging in an aperture in the box top, a nut threaded on the stud and bearing against the washer, a saddle mounted on said bars and having inturned flanges slidably engaging said bar flanges, and an elongated member extending from said stud between the bars and connected with said saddle for movement therewith and longitudinally of the bars.

In testimony whereof I hereunto affix my signature.

WILLIAM H. OWEN.