

Oct. 20, 1942.

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2,299,676

BAR HANGER

Filed Feb. 8, 1941

Fig. 1

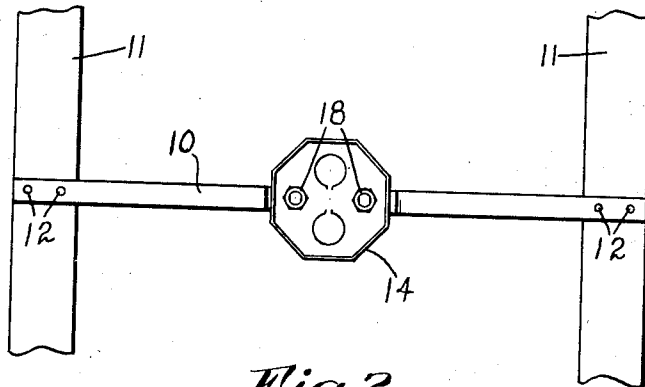


Fig. 2

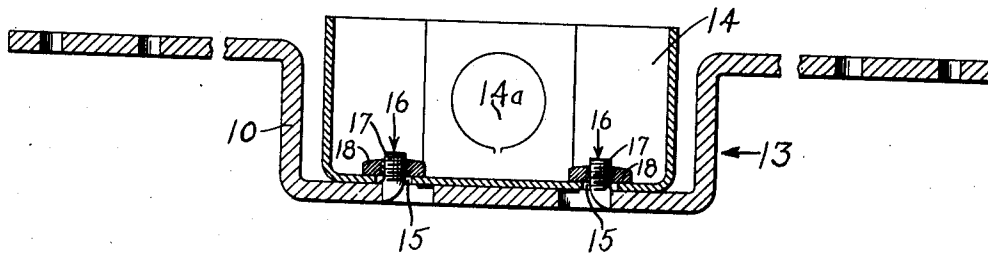


Fig. 3

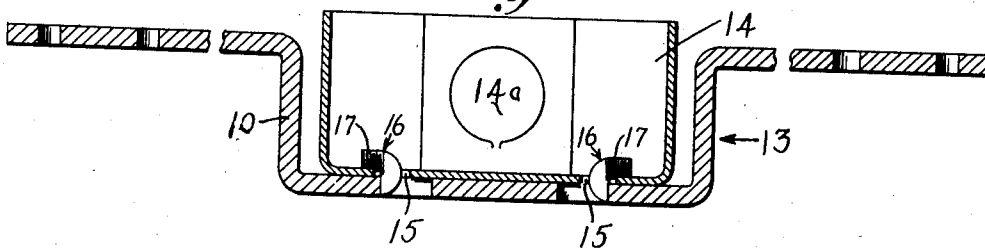
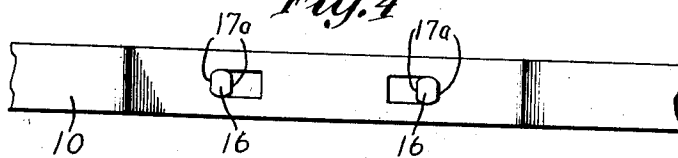


Fig. 4



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2,299,676

BAR HANGER

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Application February 8, 1941, Serial No. 378,098

5 Claims. (Cl. 248—310)

This invention relates to bar hangers and more particularly to the means for securing the outlet or other receptacle to the hanger.

It has heretofore been the practice, in order to secure outlet or the like receptacle to a bar hanger, to provide a bolt and nut by which the outlet can be locked in place, or to provide a tank which can be bent over into locking relation with the outlet. Each of these forms of mounting had a definite place and purpose in the art and fulfilled certain requirements. Thus, it was necessary to have on hand at all times some hangers having each of the types of mounting means.

According to the present invention, this necessity has been overcome by providing a single bar hanger which can be used to fulfill the requirements of either of the prior types of securing means.

This is accomplished by forming a bar hanger with a projecting portion of malleable material and providing the projecting portion with suitable threads. The outlet or the like receptacle can be secured to this bar hanger by means of a nut threaded on the projecting portion after it has been extended through an aperture in the outlet, or, if the condition requires, the threaded projecting portion extending through the aperture in the outlet can be hammered over into tight interlocking relation with the outlet and thus secure the outlet to the hanger.

The bar hanger of the present invention not only eliminates the necessity of having two types of hangers on hand, but, further, removes the danger of the separate bolts being lost, since the bolt is formed integrally with the bar hanger and projects therefrom.

Another advantage of the bar hanger of the present invention is that, in case the nut required to secure the outlet in place is lost or not available, the outlet may still be secured by bending over the projection into interlocked relation.

Other features and advantages of the invention will be apparent from the specification and claims when considered in connection with the drawing, in which:

Figure 1 shows a plan view of one of the bar hangers, with the outlet in position thereon.

Fig. 2 is a longitudinal sectional view of the bar hanger showing the outlet locked in place with the nut.

Fig. 3 is a longitudinal sectional view of a portion of the bar hanger and outlet mounted thereon by bending the projecting portions into locking relation.

Fig. 4 is a plan view of a portion of the bar hanger.

As shown in the drawing, the bar hanger of the present invention comprises a flat strap of metal 10 adapted to extend between a pair of joists 11 and have its ends, which are provided with suitable holes, secured thereto by nails or the like 12.

Intermediate the ends, the strap is bent to provide a saddle 13 for the reception of an outlet or the like receptacle 14 having the usual knock-outs 14a therein, and one or more apertures 15 in the bottom.

The bar hanger of the present invention has portions 16 projecting from the inner face of the seat of the saddle so as to pass through the apertures 15 in the outlet and cooperate with the outlet or the like receptacle to hold the same position on the bar.

While these projections may be formed in many ways, according to the preferred form of the invention, a portion of the strap, which is of malleable material, is lanced out from the middle thereof and bent to substantially right angles to the plane of the strap, as shown in Figs. 2 and 4. As will be noted, the projections, as lanced from the strap, will be somewhat flattened on the sides 17a while the remaining sides are then provided with threads 17 for the reception of a standard nut 18. The extent of the flattened portion will, of course, depend upon the relation of the width of the projection to the thickness of the strap. If a maximum of threaded area is required, the width of the projection will be substantially equal to the thickness of the strap. The threaded projection, which is integral with the hanger, forms a securing bolt which cannot be lost or misplaced.

If the installation requires it, or, if it is desired to mount the outlet box to the bar hanger by a nut and bolt, the outlet box is positioned on the bar hanger with the projection or integral bolt extending therethrough. The nut is quickly run up on the projection, and the outlet clamped in place thereby against the hanger.

The outlet thus secured to the hanger can be readily removed, and can be again quickly installed on the same hanger, or the outlet box can be replaced with other outlet boxes, if desired.

The portions of the strap surrounding the lanced out portion will provide an adequate support against which the outlet can be pressed by the nut and held against movement.

However, if it is not desired to use a nut to lock the outlet box to the bar hanger, as would

be the case where there is a great amount of vibration which would tend to cause the nut to loosen, or even if the nut has been lost, then the outlet can be securely locked in position on the bar hanger of the present invention in the manner shown in Fig. 3 by hammering the malleable projections 17, whereupon the projection is bent or otherwise deformed until the flattened surface 17a is forced laterally into engagement with the inner surface of the outlet to clamp the same tightly to the bar hanger. Outlet boxes thus anchored to the hanger bar will be securely held in place and may be removed only with the greatest of difficulty.

In the broader aspects of the invention, the projections need not be lanced from the center of the bar, but can be lanced or formed from other portions thereof so long as they project sufficiently to pass through an opening in the outlet box, and they need not be bent over in the manner shown in Fig. 3, but may be flattened or otherwise deformed to provide a suitable interlock with the outlet box or receptacle.

Also, the projection need not be of the same material of the strap, but may take the form of a threaded member of malleable material rigidly and integrally secured to the strap and adapted to pass through the apertures in the outlet box and receive a nut or be bent over as required.

When installing the device of the present invention, the outlet box can be secured to the bar hanger after the hanger has been mounted in position or before. If the projections are to be bent over to lock the outlet in position, it may be desirable to secure the outlet box to the hanger before it is mounted by resting the back of the bar on the floor or like support and hammering the malleable projecting portion into engagement with the inner surface of the outlet box or the like receptacle. The thus secured box and bar hanger can then be mounted by having the ends of the bar secured to the joists.

It will be seen that with the bar hanger of the present invention I have produced a simple and inexpensive device which can be readily formed with a minimum of operations, and which will eliminate the necessity of having two types of bar hangers heretofore required as it serves the functions of each.

Variations and modifications may be made within the scope of this invention and portions of the improvements may be used without others.

I claim:

1. A device for supporting an outlet box or the like having a hole therein comprising a mem-

ber of malleable material having a portion of the body thereof projecting therefrom and adapted to pass through the hole in the box, said portion being threaded to receive a nut to lock the box to said member and being deformable so that it may extend over the edge of said hole to clamp the box to the member.

2. A device for supporting an outlet box or the like having a hole therein comprising a flat strap of malleable material having portions lanced from the center of the strap intermediate the ends thereof and bent to project therefrom at substantially right angles to the flat surfaces of the strap and of a sufficient length to pass through the hole in the outlet box, said lanced-out portions being threaded to receive a nut to lock the box to said strap and being deformable so that they may be bent into engagement with the inner surface of the box to clamp the box to the strap, the portions of the strap surrounding the projection providing a supporting surface against which the box may be locked or clamped.

3. A bar hanger for supporting an outlet box or the like having a plurality of openings therein comprising a strap of malleable material to be secured to a support or the like and having a pair of lugs lanced from the body of the strap to project therefrom, said lugs having threads formed thereon and being adapted to extend through a pair of openings in the outlet box and receive nuts to secure the box thereto or to be bent over in opposite directions to lock the box to the hanger.

4. A bar hanger for supporting an outlet box or the like having a plurality of holes therein, comprising a strap to be secured to a support or the like and having a lug lanced from the body of the strap to project therefrom, said lug having threads formed thereon and being adapted to extend through a hole in the outlet box and receive a nut to secure the box thereto.

5. A bar hanger adapted to be secured to extend between a pair of joists for supporting an outlet box having a hole therein, comprising a strap having joist-engaging portions at the ends thereof and an outlet box-receiving saddle portion intermediate the ends, the saddle portion having an integral projection adapted to extend through the hole in the box, said projection being threaded to receive a nut to lock the box in position on said saddle and being of malleable material so that it may be deformed to clamp the box to the saddle portion.

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