Dec. 10, 1957 I. WOLAR 2,815,918

LIGHTING FIXTURE MOUNTING

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Fig. 1.

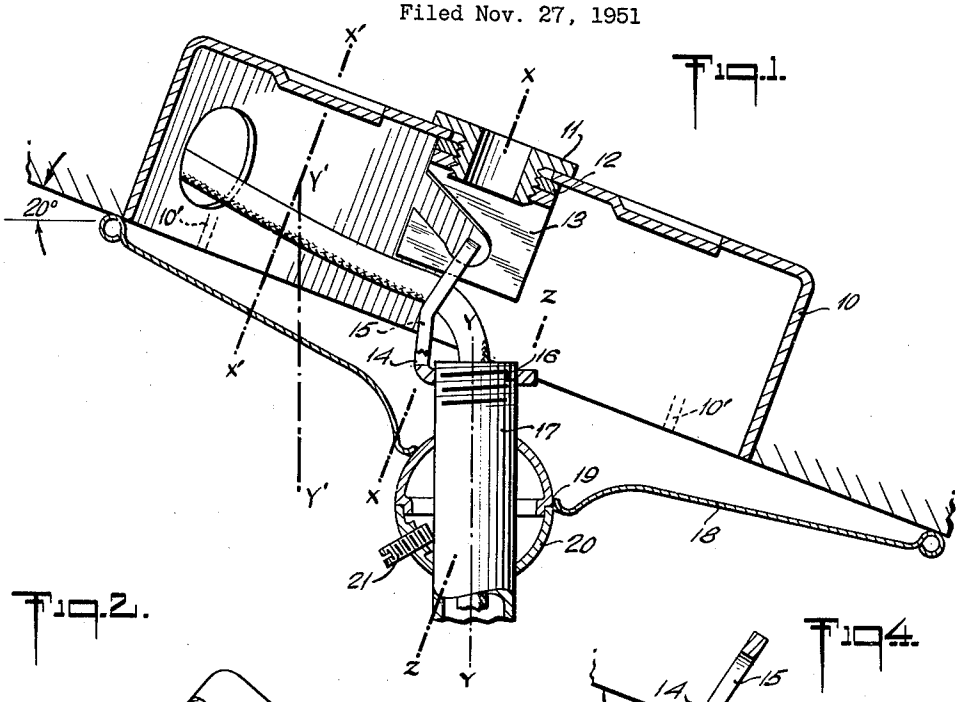


Fig. 2.

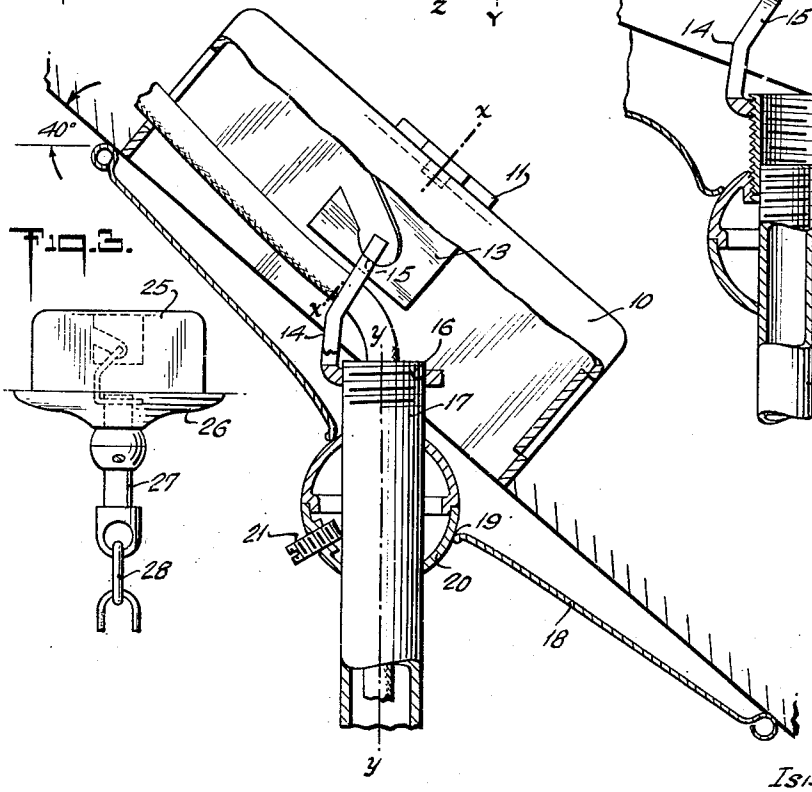
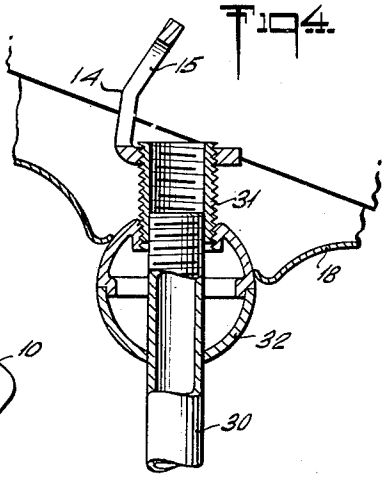


Fig. 3.

Fig. 4.



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LIGHTING FIXTURE MOUNTING

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1 Claim. (Cl. 248—343)

The present invention relates to lighting fixture mountings and is more particularly directed toward lighting fixture mountings suitable for supporting pendent fixtures below the ceiling and for covering the outlet box.

To overcome the misalignment of outlet boxes in the usual horizontal ceiling it has been customary to employ swivel joints which extend below the canopy supporting ring. Such swivels are designed for the purpose of correcting for small misplacement of the box end have limited angle of swing. The stem hangs from the swivel and the canopy is held in place. Such structures require numerous parts and are costly. They are not suitable for use where the ceiling is more than a few degrees out of horizontal. Under these conditions it has been customary to employ chain type of suspensions or to have the outlet box project or to recess it, and arrange about the outlet box a horizontal surface against which the canopy can be brought, thereby to some extent disfiguring the ceiling.

The present invention contemplates mountings whereby the stems can hang pendent without the use of the usual swivel joint, and wherein the canopy is supported from the stem in either the horizontal position or in such sloping positions as occur in practice, and can be held against the ceiling in such position so as to cover the outlet box and wiring.

The structures in which the present invention may be embodied can be used in locations where the conventional swivel joint is used and without change in locations where the swivel is unsuitable; and at a substantial saving in cost per unit.

Other and further objects will appear as the description proceeds.

The accompanying drawings show, for purposes of illustrating the present invention, two embodiments in which the invention may take form, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In these drawings:

Figure 1 is a sectional view through a fixture mounting employing a square outlet box mounted on the diagonal on a ceiling sloping at an angle of 20°;

Figure 2 is a similar view of the same fixture mounting employing the same box and turned 45° mounted on a 40° ceiling;

Figure 3 is a fragmentary elevational view of a fixture support from a flat ceiling and illustrating a relatively smaller outlet box; and

Figure 4 is a fragmentary sectional view through a modified form of construction.

The largest box likely to be employed in ceiling supported fixtures of normal weight is the 4" square box.

Such a box is 5¼" on the diagonal and when horizontal can be covered by a 5¾" or a 6" canopy. Such a box is illustrated at **10**, Figures 1 and 2. In Figure 1 it is shown so mounted that the diagonal slopes at an angle of 20° below the horizontal, and in Figure 2 it is so mounted that the sides extend up and down the ceiling at an angle of 40° below the horizontal.

In each case the outlet box **10** is shown as carrying in the center opening of the top the usual stud **11** and nut **12**. A bent sheet metal hook **13** is secured on the stud. This hook is preferably short and supports a bent strap **14** having a loop **15** to receive the hook and a threaded hole **16**, with its center below the upper end of the loop and usually ⅜" pipe size. This fitting is also preferably made short. A fixture stem **17** is threaded into the strap **14** and hangs down irrespective of the angle at which the box is mounted.

A canopy **18** is placed about the stem. It has a central hole **19** and is large enough to cover the outlet box when held against the ceiling. To hold it against the ceiling the stem **17** is provided with a member **20**, typically a ball of larger diameter than the hole **19**. It may be held in place by a screw **21**.

In Figure 1 the axis of the outlet box is indicated at X—X, the vertical axis of the stem Y—Y and the canopy axis at Z—Z. In the example shown, the stem is therefore farther from the upper corner of the box than from the lower corner. The proportions of the drawing are those for a 4" mounting in a ceiling at 20° and the canopy to cover such an adverse condition is about 7" in diameter. Instead of mounting the stud **11** centrally, it can be shifted off center by attaching the hook **13** to an outlet box strap so that its axis is in the region X'—X' and the stem is at Y'—Y'. This will locate the stem and canopy higher and to the left.

Instead of mounting the box diagonally it would more likely be mounted with the sides extending up and down in which case the upper and lower edges would be at **10'—10'** and a 6" canopy would be ample. Thus for ceilings with slopes of upwards of 20°, the usual 6" canopy can be used with a 4" box whether square or round.

Where the ceiling slopes at much greater angles, such as the 40° ceiling of Figure 2, the displacement of the stem axis *y—y* from the box axis *x—x* is such that a larger canopy is required. In the proportions shown a 7" canopy suffices for the 4" box.

Where the more common smaller box, such as the 3¼" round box, is used a smaller canopy may be employed. Figure 3 illustrates the proportions of a 3¼" round box **25**, and a 5" canopy **26**, the box being mounted horiozntally and the stem **27** being short and supporting a chain **28**.

In Figure 4 the tubing **30** is threaded into a short externally threaded tube **31** carried by the fitting **14**. The ball **32** is threaded at the top and when threaded onto the tube **31** it holds the canopy **18** up as before.

Since it is obvious that the invention may be embodied in other forms and constructions within the scope of the claim, I wish it to be understood that the particular forms shown are but several of these forms, and various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

The combination with an outlet box mounted substantially flush with a ceiling surface of means for mounting a pendant fixture to ceilings of different degrees of slope, said means comprising a fixture stem pivotally secured to and depending from said box, a shallow dish-like canopy including a relatively small central opening, said canopy slidably bearing against said ceiling and a spherically convex member adjustably mounted upon said stem, said member presenting an upwardly convex surface bearing within and against the edge of the canopy opening whereby the canopy is adjustable to fit ceilings of differing slopes and is pressed against the ceiling by said spherical member.

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