Sept. 16, 1952 H. W. VOTE 2,610,816

LIGHTING FIXTURE CLAMP

Filed March 10, 1950

Fig. 1.

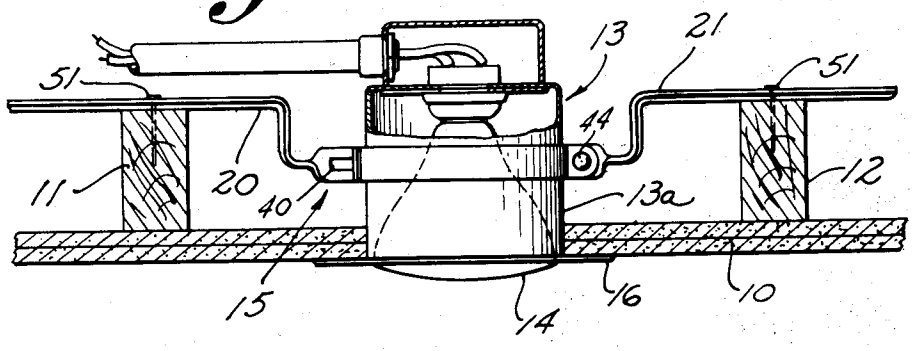


Fig. 2.

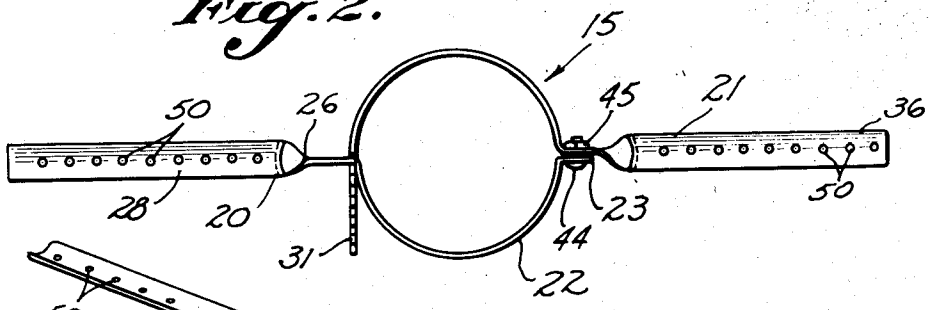


Fig. 3.

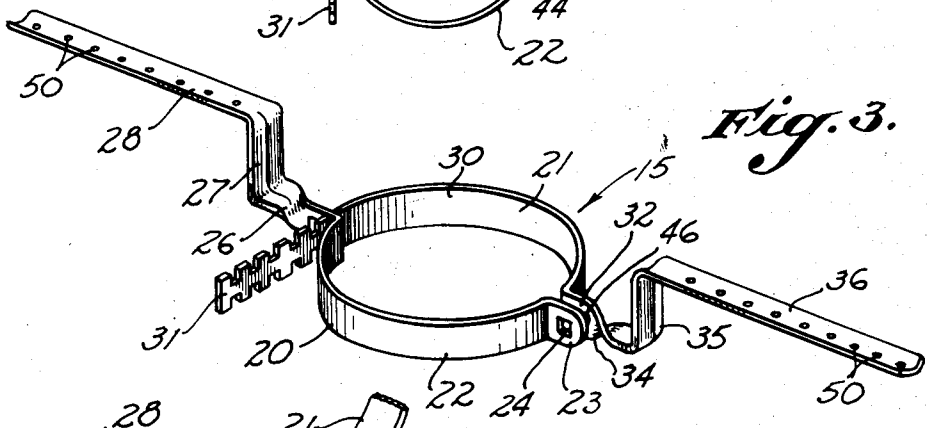
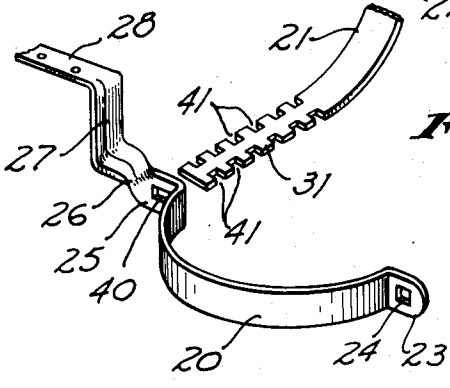


Fig. 4.



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LIGHTING FIXTURE CLAMP

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2 Claims. (Cl. 248—27)

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This invention relates generally to clamps, and more particularly to clamps for electric lighting fixtures.

The clamp of the present invention is especially applicable to a type of recessed lighting fixture having a generally cylindrical or rounded case which is received (for ceiling installations) between a pair of ceiling joists, with its end portion protruding through the ceiling wall in a more or less flush position.

An object of the invention is to provide a simple, improved bracket for installing such a lighting fixture, one which is readily affixed to the adjacent joists, which is readily bent to suit various installation situations, and which, moreover, is itself readily adjustable to accommodate lighting fixtures of different sizes.

The invention will be best understood from the following detailed description of a present illustrative embodiment thereof, reference for this purpose being had to the accompanying drawings, in which:

Figure 1 is a side elevational view of a bracket in accordance with the invention, shown installed in a ceiling structure illustrated in vertical section;

Figure 2 is a plan view of the bracket of the invention;

Figure 3 is a perspective view thereof, with a fastening means removed; and

Figure 4 is a perspective view showing portions of the bracket in an initial position prior to assembly.

In Figure 1 of the drawings, numeral 10 designates generally a ceiling structure of any conventional nature, and 11 and 12 are two adjacent ceiling joists. A lighting fixture 13, having a generally cylindrical case 13a, and shown to contain reflector lamp 14, is positioned between joists 11 and 12 by means of bracket 15. The end of the case 13a protrudes through a suitable aperture in ceiling 10, and a finish plate 16 on the end of the case mounts flush against the ceiling.

The bracket 15 consists of two inter-engaging strap members 20 and 21, each consisting of a strap of bendable metal, of any appropriate nature, e. g., wrought iron, the material employed having some degree of flexibility and resilience. The strap member 20 has a half round or arcuate portion 22, furnished at one end with an ear 23 bent outwardly at right angles and perforated as indicated at 24. Extending at right angles from the other end of the half round or arcuate portion 22 is a portion 25 which is slotted at 25a, and beyond the slot, twisted through 90°,

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as at 26, then bent upwardly at 27, and the upwardly bent portion 27 being bent at right angles to provide a horizontally extending leg portion 28.

The other member 21 of the bracket consists of a half round or arcuate portion 30, from one end of which extends, in a tangential direction, a notched projection 31 adapted to be received in slot 25a, as described in more particular hereinafter. The other end of half round portion 30 is bent outwardly at right angles to form a strap portion 32 which is adapted to oppose the ear 23 of the bracket member 20, and is perforated, as at 32a, in line with perforations 24. This strap portion 32, beyond ear 23, has a 90° twist at 34, an upwardly bent portion 35 beyond said twist, and horizontal leg member 36 bent at right angles to portion 36.

The portion 25 of strap 20 is furnished, as stated, with a slot 25a, and this slot is horizontally elongated and of a size to receive freely the notched end portion 31 of bracket member 21 when said portion 31 is turned parallel to the slot, as indicated in Figure 4. This end portion 31 of member 21 is furnished with pairs of opposed notches 41 spaced longitudinally therealong, and the dimension between the bottoms of the notches 41 of each pair is made slightly less than the vertical height of the slot 25a, so that once the member 31 has been inserted through the slot 25a, and positioned so that there is a selected pair of the notches 41 alined with the strap portion 25, the strap portion 31 can be turned through a right angle to bring the parts into the locked position of Figure 3. At such time, the portion 32 of the member 21 alines with the ear 23, and a suitable fastening means, such as screw 44, and nut 45, can be inserted through the aperture 24 in ear 23 and the aperture 32a in strap portion 32, a nut 45 being used on the screw to secure the members in assembly.

The two leg portions 28 and 36 of the device are furnished with longitudinally spaced perforations 50, permitting nailing to ceiling joists of various spacings, as will be understood by reference to Figure 1.

The bracket is assembled with the casing 13a by fitting the two arcuate portions 22 and 30 around the same, the notched end member 31 of the member 21 being projected through the slot 25a in member 20 sufficiently far as to engage the proper pair of its notches 41 with the strap portion 25 to assure that the two opposed portions 23 and 32 of the members 20 and 21 will either come just to engagement, or be slightly spaced from one another, when the arcuate mem-

bers 21 and 22 have been wrapped tightly about casing 13a. Insertion of the screw 44 and tightening up of nut 45 then clamps the two parts of the device tightly about the casing 13a. The pairs of notches 41 are sufficiently close spaced that a proper pair of said notches can always be selected to assure that the arcuate strap portions will be tightly wrapped about the casing 13a when the portions 23 and 32 have been drawn tightly together by the screw 44 and nut 45.

The bracket being thus assembled about the casing of the lighting fixture, it is readily secured to the frame members of the ceiling assembly by nailing through legs 28 and 36 to the ceiling joists, as indicated at 51.

The leg portions 28 and 36 of the bracket may either be initially bent outwardly into their horizontal positions, or, optionally, they may be supplied to the installer in an unbent condition, i. e., as vertical extensions of the vertical strap portions 27 and 35, it then being left to the installer to bend the legs outwardly at any selected points along the length thereof found most convenient or suitable to the condition or position of the framing members to which they are to be nailed. Ordinarily, however, the device will be fashioned in the factory as illustrated in the drawings, and any adjustment necessary to accommodate the lighting fixture to the ceiling level is made by adjusting the point at which the bracket clamps the casing of the fixture.

It will be seen that the mounting bracket of the invention affords a simple and inexpensive mounting device for an electric fixture of the general type indicated, one which is adapted to meet various conditions as they are encountered in the field, and one which is readily adjustable to a substantial range of fixture sizes.

A preferred embodiment of the invention has now been described in detail, but it will be understood that the drawings and description are for illustrative purposes only, and that various changes in design, structure and arrangement may be made without departing from the spirit and scope of the invention as defined by the appended claims.

I claim:

1. In a mounting bracket for a lighting fixture or the like, the combination of: two strap members each formed with a substantially half-round arcuate portion, said arcuate portions together being adapted to embrace a rounded lighting fixture or the like, said strap members being formed at corresponding ends of said arcuate portions with opposed portions extending outwardly at substantially right angles from said arcuate portions, an extension leg joining one of said opposed portions adapted to be fastened to a support, securing means for drawing said opposed strap portions toward one another, one of said strap members being formed at the opposite end of its arcuate portion with an outwardly bent slotted portion extending at substantially right angles to said arcuate portion, an extension leg joining said outwardly bent slotted portion and adapted to be fastened to a support, the other of said strap members being formed at the opposite end of its said arcuate portion with a substantially tangentially extending locking portion, the slot in said slotted strap portion being elongated in a direction longitudinally of the strap to a dimension greater than the width of said tangentially extending locking portion and having a width dimension substantially greater than the thickness of said locking portion but less than the width thereof, so as to receive said locking portion only when the locking portion is turned substantially into a plane parallel to the direction of elongation of said strap, said locking portion being edge-notched to a depth at least equal to its width less the width of the elongated slot, so as to permit turning said locking portion in said slot into a plane substantially at right angles to the direction of elongation of said slot, with locking shoulder means formed by said edge-notching in engagement with said slotted strap portion.

2. In a mounting bracket for a lighting fixture or the like, the combination of: two strap members each formed with a substantially half-round arcuate portion, said arcuate portions together being adapted to embrace a rounded lighting fixture or the like, said strap members being formed at corresponding ends of said arcuate portions with opposed portions extending outwardly at substantially right angles from said arcuate portions, an extension leg joining one of said opposed portions adapted to be fastened to a support, securing means for drawing said opposed strap portions toward one another, one of said strap members being formed at the opposite end of its arcuate portion with an outwardly bent slotted portion extending at substantially right angles to said arcuate portion, an extension leg joining said outwardly bent slotted portion and adapted to be fastened to a support, the other of said strap members being formed at the opposite end of its said arcuate portion with a substantially tangentially extending locking portion, the slot in said slotted strap portion being elongated in a direction longitudinally of the strap to a dimension greater than the width of said tangentially extending locking portion and having a width dimension substantially greater than the thickness of said locking portion but less than the width thereof, so as to receive said locking portion only when the locking portion is turned substantially into a plane parallel to the direction of elongation of said strap, said tangentially extending locking portion having a pair of opposed edge notches formed in opposite edges thereof, said notches having width dimensions greater than the thickness of the slotted strap portion, and being sunk to depths such that the bottoms of the notches are separated by a distance less than the width of the elongated slot.

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