April 14, 1970 W. WOLAR ET AL 3,506,232

CANOPY HANGER FOR LIGHTING FIXTURES

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Fig. 1.

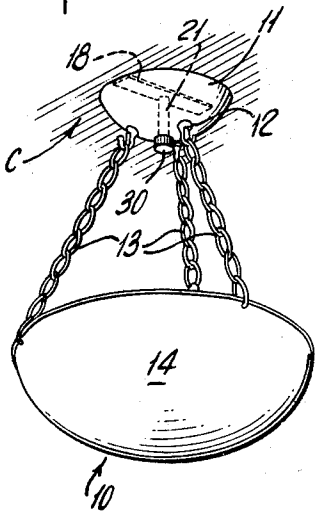


Fig. 2.

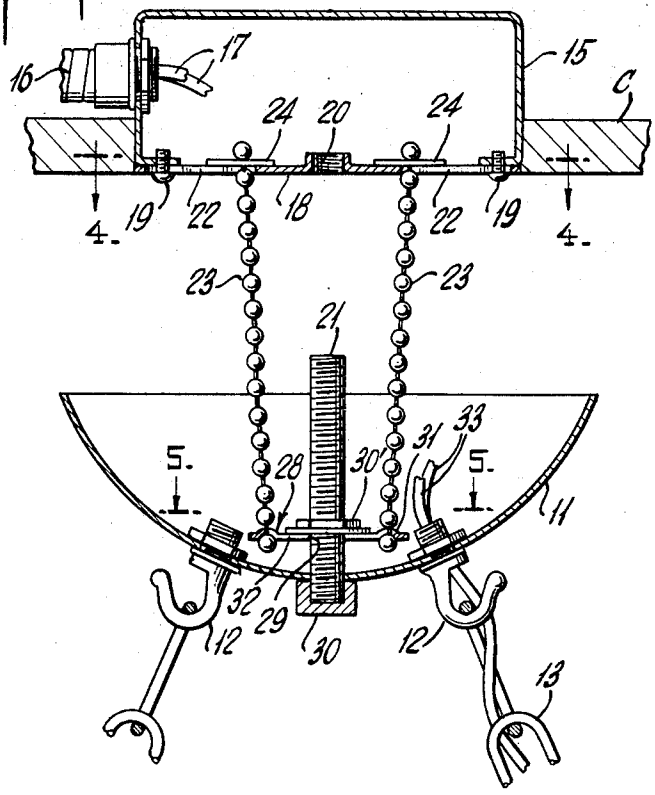


Fig. 3.

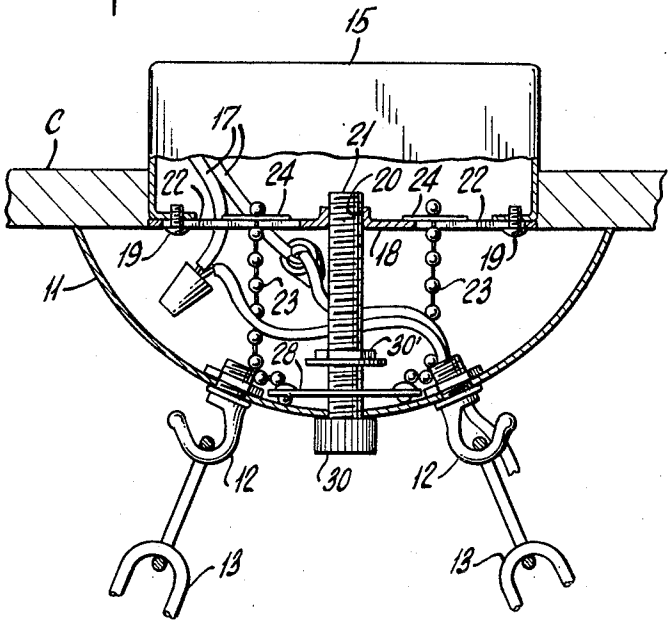


Fig. 6.

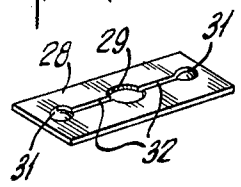
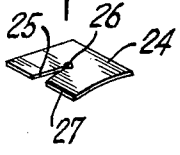


Fig. 7.



INVENTORS
WILLIAM WOLAR
STANLEY WOLAR
BY
ATTORNEY

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Fig. 4.

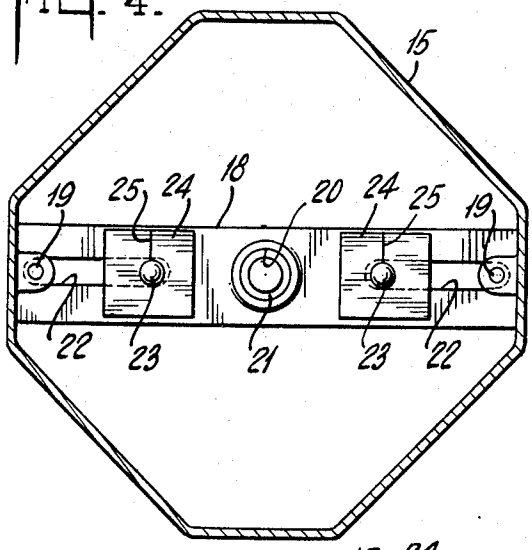


Fig. 5.

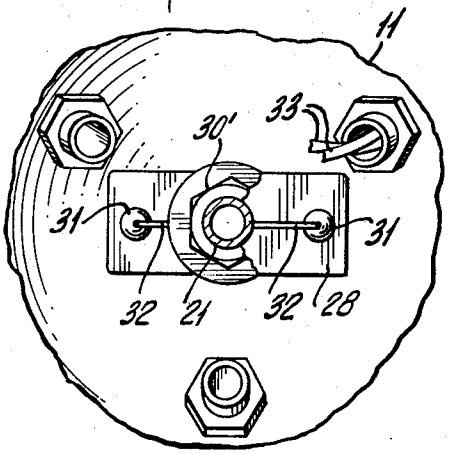


Fig. 8.

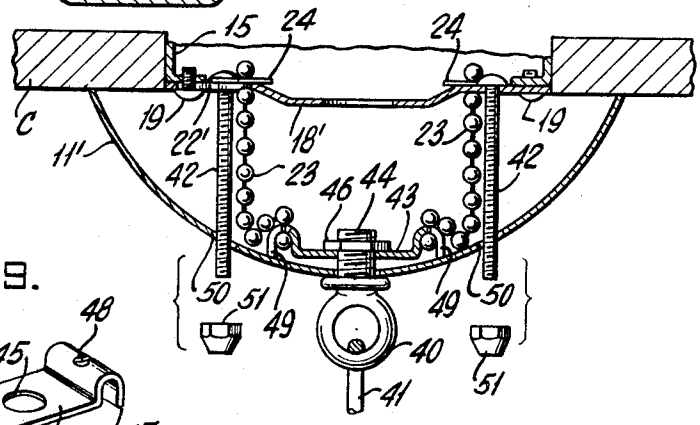


Fig. 9.

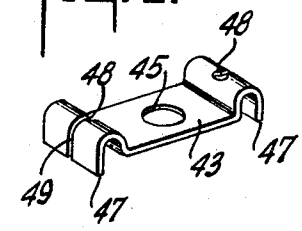
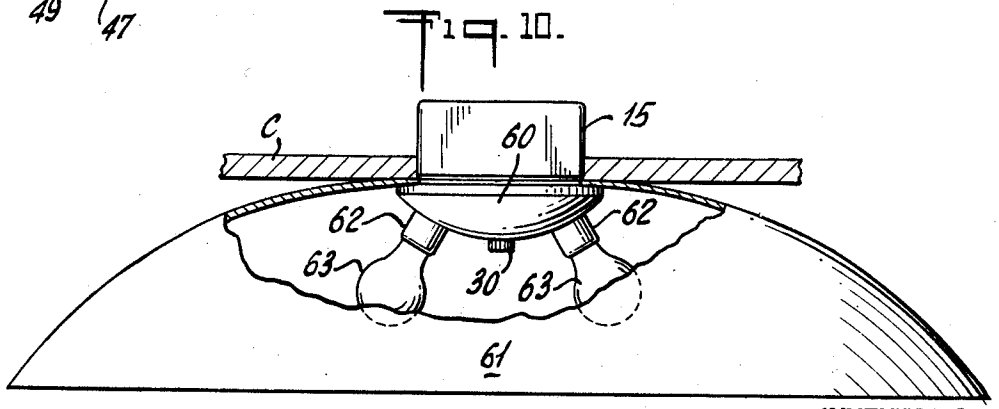


Fig. 10.



INVENTORS
WILLIAM WOLAR
STANLEY WOLAR
BY
ATTORNEY

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3,506,232

CANOPY HANGER FOR LIGHTING FIXTURES

William Wolar, 59 Fremont Road, North Tarrytown, N.Y. 10591, and Stanley Wolar, 45 Shirley Lane, White Plains, N.Y. 10607

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U.S. Cl. 248—320 9 Claims

ABSTRACT OF THE DISCLOSURE

A canopy hanger for lighting fixtures including means for supporting the canopy and the lighting fixture carried thereby at a distance from the ceiling to facilitate wiring, the canopy including means for securing it to a ceiling supported strap upon completion of the wiring.

This invention relates to canopy hangers for lighting fixtures and more specifically to a novel and improved canopy hanger for lighting fixtures embodying means for supporting the canopy at a distance from the ceiling to facilitate wiring while the fixture is supported by the canopy. Upon completion of the wiring, the canopy may then be secured to a suitable ceiling bracket.

Lighting fixtures may be arranged to be supported from a ceiling in a variety of modes. One type of fixture is designed for direct attachment to a ceiling support and has a canopy movable relative to the fixture so that the canopy can be lowered to facilitate wiring of the fixture and then moved into position against the ceiling. Many types of fixtures, however, are carried directly by the canopy and the canopy in turn is provided with means for attaching it to a ceiling support. In the latter case considerable difficulty is encountered since the lighting fixture together with the canopy must be held at a distance from the ceiling in order to connect the lighting fixture with ceiling wiring for energizing the fixture. Many of these fixtures are relatively heavy and some are even formed of fragile materials such as glass and the like. Under these conditions two men are usually required to hang the fixture so that one man can support the fixture in its approximate position while the other completes the electrical wiring. This invention overcomes these difficulties in the installation of canopy supported fixtures and provides a novel and improved arrangement and organization of elements which enables a single individual to hang the fixture without the danger of damaging the fixture or in any way endangering the individual effecting the installation.

Another object of the invention resides in a novel and improved canopy hanger for lighting fixtures which facilitates installation of fixtures supported by the canopy and thus reduces the time and cost of the installation.

A still further object of the invention resides in the novel and improved canopy hanger for lighting fixtures which is characterized by its ease of manufacture, simplicity, and relatively low cost.

The above and other objects of the invention will become more apparent from the following description and accompanying drawings forming part of this application.

In the drawings:

FIGURE 1 is a perspective view of a canopy supported lighting fixture secured in position against a ceiling;

FIGURE 2 is a vertical cross-sectional view of a fragmentary portion of the fixture shown in FIGURE 1 and with the canopy spaced from the ceiling to facilitate wiring;

FIGURE 3 is a cross-sectional view similar to FIGURE 2 with the canopy fixed in position against the ceiling;

FIGURE 4 is a cross-sectional view of FIGURE 2 taken along the line 4—4 thereof;

FIGURE 5 is a cross-sectional view of FIGURE 2 taken along the line 5—5 thereof;

FIGURE 6 is a perspective view of the bracket illustrated in FIGURE 5;

FIGURE 7 is a perspective view of a clip for securing the canopy supporting chains to a ceiling mounted bracket;

FIGURE 8 is a cross-sectional view of a modified form of canopy hanger in accordance with the invention;

FIGURE 9 is a perspective view of the bracket shown in FIGURE 8 to hold the lower ends of the chain to the canopy; and

FIGURE 10 is a fragmentary cross-sectional view of another type of canopy supported lighting fixture with which the invention may be utilized.

Referring now to FIGURES 1 through 6, the canopy supported lighting fixture generally denoted by the numeral **10** includes a canopy **11** having three hooks **12** secured thereto. Chains **13** extend from the hooks **12** and support a dished element **14** containing a suitable light source such as incandescent lamps or the like. It is understood that the lighting fixture illustrated in FIGURE 1 is merely shown for exemplary purposes and it will become apparent as the description proceeds that the invention is applicable to any type of canopy supported fixture.

Lighting fixtures are generally secured to the ceiling by means of an outlet box **15** secured to the ceiling C to which an electrical cable **16** is secured with wires **17** extending into the box **15** for connection to the lighting fixture. While the fixture may be secured to the box **15** in any suitable manner, the illustrated embodiment of the invention utilizes a strap **18** which spans the box **15** and is secured thereto by screws **19** or other suitable fastening means. The strap **18** is provided with a central threaded opening **20** for threadably receiving the elongated threaded nipple **21**. The strap **18** further includes a pair of elongated slots **22** which may in certain applications also accommodate the screws **19** for securing the strap to the box **15**.

A pair of chains **23**, which in the instant embodiment of the invention are in the form of conventional ball chains, are provided to support the canopy **11** at a distance from the ceiling C. The upper end of each chain **23** extends through a slot **22** and is secured to the strap by engagement of a clip **24** with the chain. Each clip is provided with a narrow slot **25** terminating in a central opening **26** as may be seen more clearly in FIGURE 7, which opening has a diameter substantially smaller than the balls on the chains **23**. In the fabrication of the clips **24** one edge **27** is bent downwardly as shown in FIGURE 7 to facilitate engagement of the clip with the chains by insertion of the clip with the portion **27** bearing against the upper side of the strap **18**, the weight of the fixture will displace the clip portion **27** to a position parallel with the remainder of the clip and thus prevent disengagement of the chains **23** from the strap **18**.

The lower ends of the chains **23** are attached to the canopy by means of a bracket **28**. This bracket has a central opening **29** to slidably engage the nipple **21**, the latter having an external cap **30** to secure it to the canopy and a nut **30'** to hold the bracket **28** in position on the nipple. The bracket **28** is provided with relatively small openings **31** spaced from each end of the bracket and narrow slots **32** extending from the central opening **29** to the openings **31**. In actual practice the pair of chains **23** would be placed in engagement with the openings **31** before assembly of the bracket on the nipple **21** whereupon insertion of the nipple **21** locks the chains in place.

With this arrangement installation of the fixture is accomplished by assemblying the bracket **28**, the chains **23** and the nipple **21** on the canopy **11**. The canopy **11** is then secured to the supporting strap **18** by sliding the

chains **23** through the slots **22** and placing the clips **24** in position as described. This operation can be accomplished without assistance whether the fixture has been previously secured to the canopy or is secured to the canopy after the latter is in position as shown in FIGURE 2. If desired, the chains **23** can be first secured to the strap **18** and then the lower ends attached to the canopy. With the canopy **11** in the position as shown in FIGURE 2, the wires **33** from the lighting fixture may then be connected with the supply conductors **17** whereupon the entire fixture can be lifted to the position shown in FIGURE 3 for engagement of the nipple **21** with the threaded opening **20** to hold the canopy tightly to the ceiling C.

FIGURES 8 and 9 illustrate another embodiment of the invention wherein the canopy **11'** includes a single fixture supporting element **40** to which a chain **41** carrying the fixture is attached. The outlet box **15** in the ceiling C includes a strap **18'** having a pair of bolts **42** extending through and downwardly of the strap **18'**. The upper ends of the ball chains **23** pass through slots **22'** in the strap **18'** and are secured in position by clips **24** as previously described.

The lower ends of the chains **23** are attached to a bracket **43** connected to the canopy **11'** by the fixture supporting means **40** which has a nipple **44** extending through the canopy and through a central opening **45** in the bracket **43** to hold the latter in position on the canopy.

The bracket **43** has U-shaped end portions **47** with each end portion including an opening **48** having a diameter smaller than the balls of the chain **23** and a slot **49** leading from the opening to the lower edge of the U-shaped portion **47**. When the ball chains are placed in engagement with the openings **48** on the bracket **43** and the latter is secured to the canopy **11'** as illustrated in FIGURE 8, the ball chains are locked in position and cannot accidentally become disengaged from the bracket **43**.

The canopy **11'** as illustrated in FIGURE 8 further includes a pair of openings **50** which register with the bolts **42** and the canopy is held in place against the ceiling by cooperating nuts **51**. Thus it is evident that this form of the invention affords the same advantages as the form of the invention previously described.

FIGURE 10 illustrates another form of lighting fixture which may utilize the invention as previously described. In this illustration the lighting fixture includes a canopy **60** which is held in place by a nipple corresponding to the nipple **21** in FIGURE 2 and a nut **30** which is identical to the nut **30** of FIGURE 2. A dished element **61** overlies the top of the canopy **60** and is held in place against the ceiling when the canopy **60** is engaged with the ceiling support. The lighting means may of course take any suitable configuration such as a plurality of sockets **62** which are secured to the canopy and carry incandescent lamps **63**.

While only certain embodiments of the invention have been illustrated and described, it is apparent that alterations, modifications and changes may be made without departing from the true scope and spirit thereof.

What is claimed is:

1. A canopy hanger for ceiling supported lighting fixtures comprising supporting means secured to said ceiling, a canopy, means releasably securing said canopy to said supporting means, and chain-like means secured at one end to said canopy and at the other end to said supporting means, said chain-like means supporting said canopy at a distance from said ceiling when said securing means is released and fixture attaching means on the outer surface of said canopy for carrying a lighting fixture to be supported by said ceiling.

2. A canopy hanger according to claim **1** wherein said chain-like means are ball chains, said supporting means comprises a bracket having at least one opening therein for engagement with said releasable securing means and means connecting said ball chains thereto.

3. A canopy hanger according to claim **1** wherein said means securing said chain-like means to said canopy comprises an elongated bracket secured to said canopy and having at least one opening for engagement with said chain-like means.

4. A canopy hanger according to claim **3** wherein said chain-like means is a ball chain and said bracket includes a slot extending from one edge of said bracket to said opening, the last said opening being smaller than the balls on said ball chain and means locking said ball chain in engagement with said opening.

5. A canopy hanger according to claim **1** wherein said chain-like means comprises a pair of ball chains, said supporting means includes openings for slidably receiving the ends of said chains and slotted clips engaging the ends of said chains and interlocked therewith to secure said chains to said supporting means.

6. A canopy hanger according to claim **1** wherein said releasable means securing said canopy to said supporting means comprises an elongated threaded element and said means securing said chain-like means to said canopy comprises an elongated bracket carried by said threaded element and having openings for engagement of said chain-like means.

7. A canopy hanger according to claim **6** wherein said bracket further includes a central opening for engaging said threaded element and slots connecting the central opening with the first openings and said chain-like means comprise ball chains, said ball chains being moved through said slots and into engagement of said threaded element with said central opening prevents disengagement of said ball chains.

8. A canopy hanger according to claim **5** wherein said releasable means securing said canopy to said supporting means comprises an elongated threaded element and said means securing said chain-like means to said canopy comprises an elongated bracket carried by said threaded element and having openings for engagement of said chain-like means.

9. A canopy hanger according to claim **8** wherein said bracket further includes a central opening for engaging said threaded element and slots connecting the central opening with the first openings and said chain-like means comprise ball chains, said ball chains being moved through said slots and into engagement with the first said openings whereupon the engagement of said threaded element with said central opening prevents disengagement of said ball chains.

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ROY D. FRAZIER, Primary Examiner

J. FRANKLIN FOSS, Assistant Examiner

U.S. Cl. X.R.

240—78; 248—345