C. W. BIHLER.

FASTENING DEVICE FOR ELECTRIC FIXTURES.

APPLICATION FILED DEC. 4, 1911.

1,076,186. **Patented Oct. 21, 1913.**

Fig. 1.

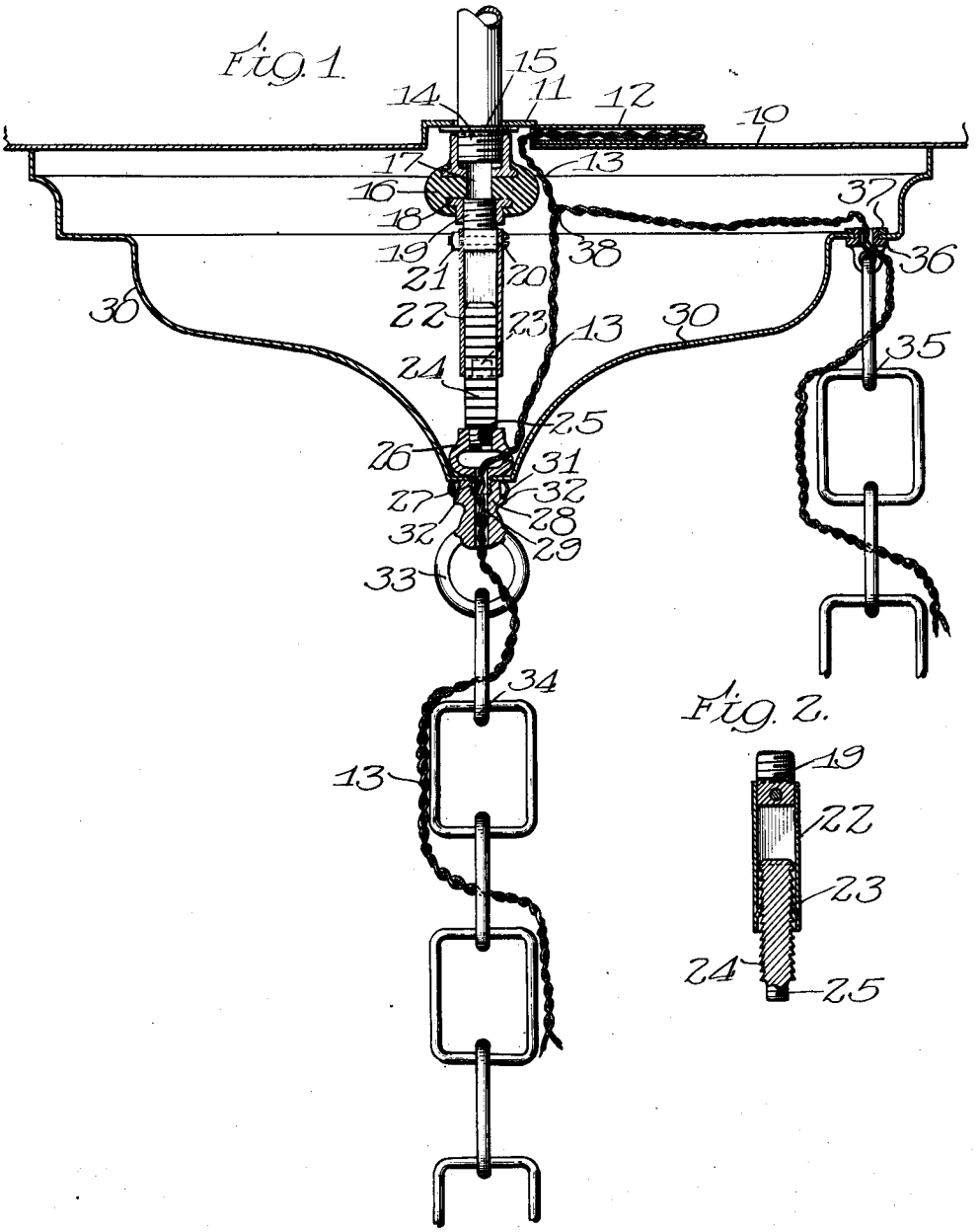


Fig. 2.

Witnesses:
H. C. Bucaccus Jr.
R. Burkhardt.

Inventor:
Carl W. Bihler
By: Brown Hopkins
Attys:

UNITED STATES PATENT OFFICE.

CARL W. BIHLER, OF CHICAGO, ILLINOIS.

FASTENING DEVICE FOR ELECTRIC FIXTURES.

1,076,186. Specification of Letters Patent. Patented Oct. 21, 1913.

Application filed December 4, 1911. Serial No. 663,825.

To all whom it may concern:

Be it known that I, CARL W. BIHLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fastening Devices for Electric Fixtures, of which the following is a specification.

This invention relates to electric fixtures, and is more particularly described as a wall or ceiling fixture from which lamp chains or cords may extend or be suspended.

The principal object of the invention is to provide a device of the class described which may be quickly applied, which is simple, strong, and efficient and effective in operation.

Another object of the invention is to provide means to support the fixture dome, as well as to support the lamps.

A further object is to provide means whereby the canopy or dome may be positioned with respect to the wall and the wires threaded through the drum without rotating the fixtures and thereby twisting the wires.

Another object is to provide a readily applicable device of the class described in which parts of the fastening device may be placed on the dome and other parts on a fastening stem in the wall before the dome is positioned, and whereby the dome may thereafter be quickly and firmly secured in position with out rotating either the dome or the fastening.

For the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts generally shown in the drawing and described in the specification, but more particularly pointed out in the appended claims.

In the drawing Figure 1 is a side elevation mostly in section of an electric fixture of the class described, constructed in accordance with the principles of the invention; Fig. 2 is a detail sectional view of the locking sleeve shown in Fig. 1.

In hanging electric fixtures of the class in which a large ceiling canopy or dome is used, it has previously been the practice to position the dome with respect to the wall by means of a threaded sleeve, which must be adjusted and cut to the proper length before the dome can be properly positioned. This method is not only inconvenient to apply, but also it takes considerable time to position the dome. Furthermore, with the construction previously employed it was necessary first to thread the electric light wires through the dome and through the suspending nut, and then to turn the nut up upon a threaded sleeve. This construction necessitates the turning of the nut upon the sleeve after the wires have been threaded through the nut, thereby twisting the wires and rendering them liable to abrasion, impairing the insulation about the wires, which may result seriously.

The present invention has for its principal object to obviate these difficulties and to provide the construction in which the dome may be readily and positively positioned with respect to the wall or ceiling, and without rotating the wires after they have been connected and threaded through the dome.

Referring now more particularly to the drawing, the reference numeral 10 designates generally the wall, ceiling or support to which a device of the class described is to be attached. The present exemplification of the invention is intended to represent the device as applied to the ceiling in which a pull box 11 for electric wires is positioned in any suitable manner. Extending to the pull box 11 is a conduit 12 in which conductors 13 are disposed. This pull box 11 is commonly provided with a fixture stem secured to the box; or if a combination gas and electric fixture is employed, the end of a gas pipe preferably extends through the bottom of the box as shown at 14 in Fig. 1. This end of the gas pipe is threaded and is retained in position in any suitable manner, as for example, by means of a lock nut 15, and although, in the present exemplification of the invention, the end of a gas pipe is shown extending through the bottom of the pull box, this extending portion will be referred to as a fixture stem, as it has this function whether the stem portion 14 is a section of gas pipe or a fixture stem and secured to the pull box. An insulating joint 16 is threaded upon the stem 14, being provided with an opening 17 through the insulating joint. This insulating joint is also provided with an internally threaded member 18, in which a plug 19 may be inserted. This plug 19 is adapted to close the opening 17, and if it is desired to use the fixture

only as an electric fixture, it will be effective to close the end of the gas pipe which extends through the pull box. Secured to the plug 19 in any suitable manner, as for example, by means of the screw 20 and nut 21, is a sleeve 22. This sleeve may be made of any suitable material, such as sheet metal or the like, and is preferably square in shape, although it may be formed in any desired irregular or rectangular shape. At the lower end of the sleeve are inwardly projecting tongues 23, which are preferably pressed from the metal itself, and are of sufficient length to be resilient. Slidable within the sleeve 22 is a toothed member 24, having teeth disposed to be engaged by the inwardly projecting tongues 23. This toothed member 24 is preferably square but may be irregular or rectangular, corresponding to the shape of the sleeve 22, the object being to prevent the rotation of the toothed member with respect to the sleeve. The tongues and the teeth are preferably disposed so that the toothed member will be permitted to slide over the tongues when the member is inserted within the sleeve, and to engage the teeth to prevent removal of the member from within the sleeve. The outer end of the toothed member 24 is provided with a threaded portion 25.

Positioned upon the threaded portion 25 of the toothed member 24 is a member known in the trade as a "hickey" 26, having a hollow threaded tip 27. Upon this tip 27 a nut 28 is threaded, which is also provided with a passage 29 which communicates with the opening in the hollow tip of the hickey.

Disposed between the hickey 26 and the nut 28 is the dome 30, which is provided with an opening preferably at its center, large enough to permit the tip 27 of the hickey to be inserted through the dome. When the nut 28 is rotated upon the tip 27 the dome is clamped between the two members and is held in position thereby. A washer 31 is preferably provided, which rests against the shoulder 32 on the nut 28, and is preferably shell-like in form, so that it may be slightly compressed when the nut is rotated up against the dome.

A dome of any form or shape may be positioned by this fastening device, but in the present exemplification of the invention a circular dome with a depending central portion is shown. Suitably connected to the nut 28 is a supporting swivel 33 by means of which the lamp supporting chain 34 may be suspended.

In practice, the application of this fastening device is very simple, and consumes a minimum of time, for the reason that there are no adjustments to be made when the dome is to be positioned. In positioning the dome the fixture stem is already in position in the ceiling. The insulating joint 16 to which is connected the sleeve 22 by means of the plug 19 is threaded upon the stem 14, and the nut 28 and the hickey 26, together with the toothed member 24, are secured to the dome 30. After the wires 13 are suitably connected they are threaded through the hickey 26, and through the passage 29 in the nut 28. To position the dome 30 with respect to the wall, it is now necessary only to insert the toothed member 24 within the sleeve 22, and to press the dome upwardly the teeth will be caught by the tongues 23 and will hold the dome firmly in place, from which it cannot be removed by pulling the dome in the reverse direction without breaking the sleeve. From this description it will be evident that it is not necessary to rotate either the dome or any of the parts of the fixture to position the dome against the wall, and therefore there is no danger of the electric wires being stripped of their insulation or the insulation injured by the twisting action. All of the necessary adjustments and the connections may be made before the dome is placed in position, it being necessary only to thread the wires through the proper opening, and to press the dome upwardly into position. When it is desired to remove the dome for any cause it is only necessary to remove the nut 28, whereupon the dome 30 may be easily and quickly removed as desired.

It is customary to provide a central suspending chain 34, as shown in Fig. 1, and other chains 35 depending from the dome at a distance from the center. In the present exemplification of the invention a suspending nut 36 is shown, which is held in place by a lock nut 37 disposed inside of the dome. This, however, constitutes no part of the present invention, and the position of the chain 35 is pointed out for the purpose of showing that it may be necessary to make an electrical connection between the wires at 38 within the dome. With this construction it will be seen that the central chain 34 is suspended directly from the fixture stem in the ceiling, and that no strain whatever is placed upon the dome 30.

While I have thus described the preferred embodiment of my invention, it is evident that others skilled in the arts to which this appertains may make various changes in the construction, combination and arrangement of the several parts without departing from the spirit and scope of the invention.

What I claim is:

1. In combination, an electric wall fixture dome, a fixed member in the wall, a device comprising two members one secured to the dome at its center and one to the fixed wall member slidable one within the other and non-rotatable with respect to each other, and means in connection with the two members of the device to engage one with the other.

2. In combination, an electric wall fixture dome, a fixed member in the wall, and a device comprising telescoping members non-rotatable with respect to each other having engaging portions to permit relative movement of the members in one direction but not in the other, one of the members being secured to the center of the dome and the other to the fixed member in the wall.

3. The combination with an electric wall fixture dome, of a wall stem, and inter-engaging telescopic members separately secured to the stem and to the inside of the dome at its center non-rotatable with respect to each other and adapted to permit the movement of the dome only in the direction of the wall.

4. The combination with an electric wall fixture dome, of a fixed wall stem, and telescopic rectangular members separately securable one to the inside of the dome and the other to the stem, one of the members being provided with teeth and the other with resilient tongues to engage the teeth to allow the members to be moved in one direction with respect to each other to hold the dome non-rotatably at any distance from the wall and to permit the dome to be moved toward the wall and to prevent its retraction.

5. In an electric fixture, the combination with a dome having an aperture, of a hickey having a threaded tip to extend through the aperture, a nut with a chain suspension swivel mounted upon the said threaded tip, the said tip being provided with an opening to permit a wire to be threaded through it, and means in connection withe the hickey to secure the dome to the wall or support.

6. In an electric fixture, the combination with a dome having an aperture, of a hickey placed inside the dome, a nut to provide suspending means disposed without the dome and secured in position by engagement with the hickey before the dome is positioned, the said parts being apertured to permit wires to be threaded through them, and means to secure the dome in position by moving it in an axial direction whereby the wires will remain untwisted.

7. In a device of the class described, the combination with a stem secured to the wall, an insulating member threaded on the stem, a plug for the said member, a sleeve secured to the plug at one end and having spring tongues cut from the sleeve and extending inwardly adjacent the other end, a member slidable in the sleeve and having teeth in the face thereof which are engaged by the tongues; the said teeth being formed and disposed to permit the said member to be inserted and to prevent the removal thereof, the outer end of the member being threaded, a hickey threaded on the end of the member and having a hollow threaded tip, a nut for the threaded tip, a metallic dome having a perforation through which the tip extends, the said nut being movable upon the tip to bind the dome between it and the hickey, the said nut being provided with suspending means, the said dome and the toothed member being movable toward the wall to position the dome against the wall, the hollow tip being adapted to permit a wire or wires to be threaded through the dome.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of November, A. D. 1911.

CARL W. BIHLER.

Witnesses:
K. W. WOURSELL,
C. H. SEEM.