Feb. 12, 1929. 1,701,935

F. T. RYAN

ELECTRIC FIXTURE OUTLET

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Fig. 1

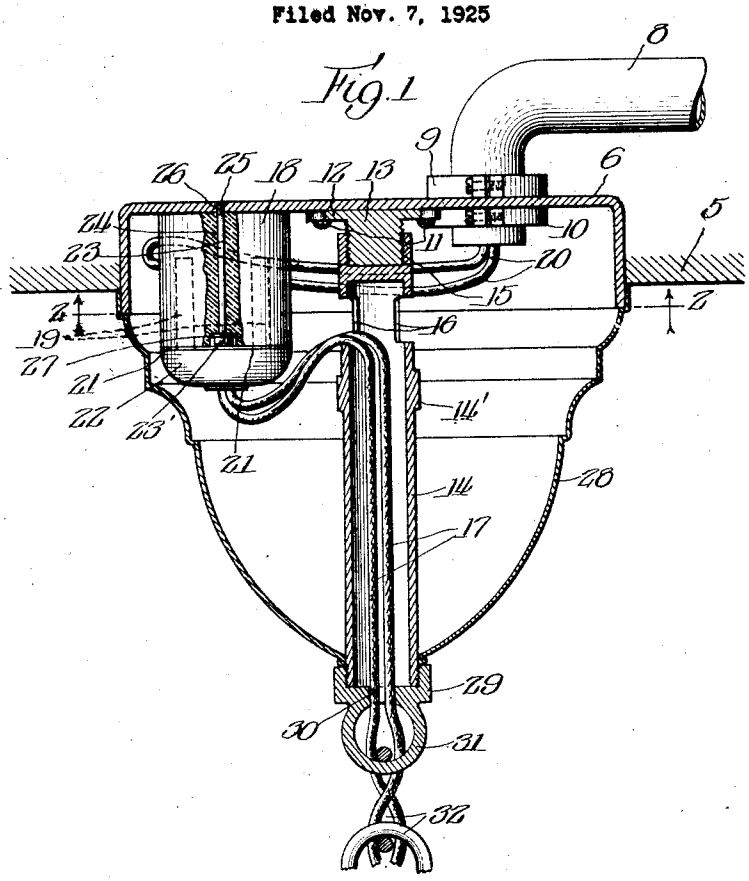
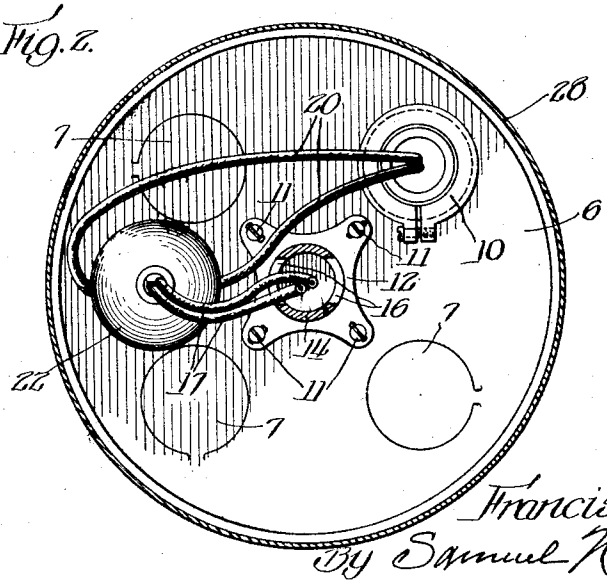


Fig. 2.



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ELECTRIC-FIXTURE OUTLET.

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This invention relates to the art of electric fixture outlets such as are commonly employed in ceilings and walls for the support of electrical fixtures and the separable connections of the circuit and fixture lines.

Devices of this character commonly employ what is known as a ceiling or wall box set into the ceiling or wall, means for suspending the rod or chain of a fixture therefrom, means for introducing the circuit wires into the box and thence into and downwardly through or along the fixture rod or chain, and a canopy detachably connected to the rim or flange of the box and formed with a hole in its lower end for the passage therethrough of the rod or chain. In some fixtures of this type, the circuit lines are extended continuously from the ceiling or wall into and through the fixture and thence downwardly through or along the rod or chain to the lamp sockets of the lighting fixture, and when the fixture is removed or replaced it is necessary to cut the wires and subsequently reconnect and wrap them. To avoid this latter operation, it has heretofore been proposed to introduce a socket and plug in the circuit lines, the same being located at various points and secured in various ways within the box and canopy, so as to be concealed.

My present invention relates to an improvement in fixtures of the latter type, and has for its main object to simplify and cheapen previous constructions and render them more practical. Another more specific object is to provide a new, simplified and improved means for securing the socket within the box, which will involve in its application a minimum of alteration of the standard box.

Other objects and attendant advantages of the invention will be apparent to persons skilled in this art as the same becomes better understood by reference to the following detailed description, taken in connection with the accompanying drawing wherein I have illustrated one practical and approved embodiment of the invention, and in which—

Fig. 1 is a vertical sectional view of an outlet fixture embodying my invention and shown as mounted in a ceiling; and

Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1.

Referring to the drawing, 5 designates a fragment of the ceiling, in which is mounted and secured by the usual or any suitable means a round ceiling box 6 of ordinary construction, the bottom being formed with the usual knock-outs 7 for the introduction and attachment of the usual BX tubing 8 carrying the circuit lines; the tubing being attached to the box by the usual upper and lower clamp collars 9 and 10.

Attached to the under side of the bottom of the box 6 at the center of the latter by screws 11 is a plate 12 formed with an integral depending threaded stud 13. To this stud is detachably connected a tube 14 formed at its upper end with a tapped socket 15 that screws onto the stud 13. In the side of the tube 14 is formed one or more openings 16 to accommodate the passage of the fixture wires 17, and on the tube may be formed a squared portion or wrench hold 14′.

18 designates a round socket member formed with the usual holes or sockets 19 in the bottoms of which the terminals of the circuit wires 20 are secured and which receive the terminal pins or prongs 21 of the removable plug 22 through which the fixture lines 17 extend. The socket member 18 is attached to the bottom of the box 6 at a point between the central stem 13 and the rim of the box preferably by means of a bolt 23 passed through a central hole 24 in the socket member 18 and formed with a threaded end 25 screwing into a tapped hole 26 in the bottom of the box. The lower end of the hole 24 is preferably countersunk to provide space for a washer 27 and the head 23′ of the bolt.

28 designates the usual canopy, the upper end of which encircles the portion of the rim of the box 6 that extends below the surface of the ceiling and is attached thereto by any suitable means (not shown). The lower end of the tube 14 extends through the lower end of the canopy 28 and, in the instance shown, is closed by a cap 29 formed with an aperture 30 for the passage of the fixture wires 17 and with an integral eye 31 for the attachment of a fixture suspension chain 32.

For the installation of my improvement in a standard ceiling or wall box such as that herein shown, it is necessary only to form a single countersunk hole centrally through the socket member 18 for the accommodation of the bolt 23, form a single tapped hole through the bottom of the box 6, apply and fasten the socket member by an ordinary screw driver, and connect the ends of the circuit wires 20 into the pin sockets 19. When the fixture requires to be removed and replaced, the for-

mer is readily done by unscrewing the cap 29, detaching and lowering the canopy 28, pulling out the plug 22, and unscrewing the tube 14 from the stud 13. The replacement of the fixture is manifesty effected by reversing the above operations in the reverse order.

From the foregoing it will be apparent that my invention involves no alteration or change in the standard ceiling or wall fixture beyond the forming of the tapped hole 26 in the bottom of the box, and the forming of a central hole through the socket member; and it requires no additional equipment other than the bolt 23. Hence, it is capable of production and use at a trifling cost of material and labor, thereby rendering detachable circuit line connections for ceiling and wall outlet boxes thoroughly practical.

In the appended claim I refer to the box 6 as a wall box, but it is to be understood that the term "wall" is used in a generic sense to include either a side wall, a top wall or ceiling, or a bottom wall or floor.

I claim—

In an outlet fixture of the character described, the combination of a wall box, a threaded stud rigidly attached to and depending from the bottom wall of said box, a tube having a tapped socket at its upper end engaged with said stud, said tube formed with a lateral opening, a socket member attached directly by a single central bolt to the bottom wall of said box at one side of said stud, circuit wires led through said box into said socket member, a plug co-operating with said socket member, fixture wires leading from said plug through said lateral opening and thence downwardly through said tube, and a canopy at its upper end encircling said box and at its lower end encircling said tube.

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