June 1, 1926. 1,586,709

A. I. SCHWINGER

ELECTRIC FIXTURE COUPLING

Filed July 8, 1922

Fig. 1.

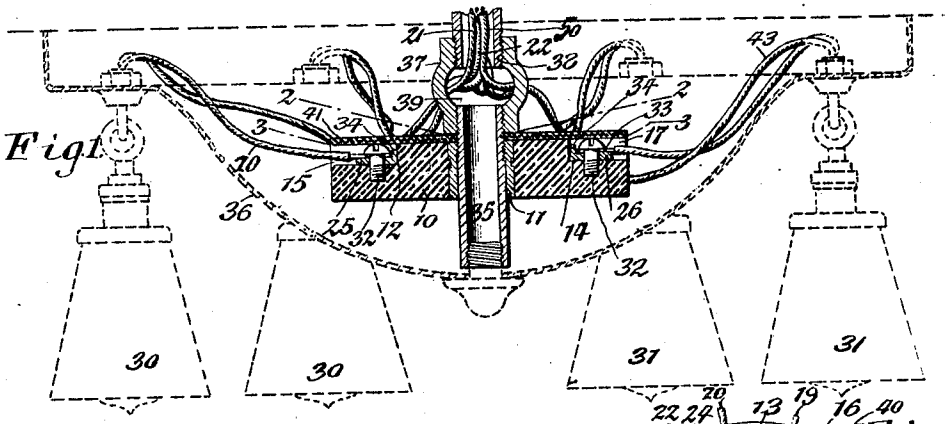


Fig. 2.

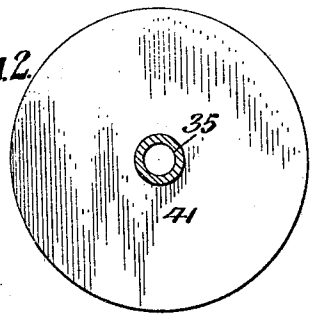


Fig. 3.

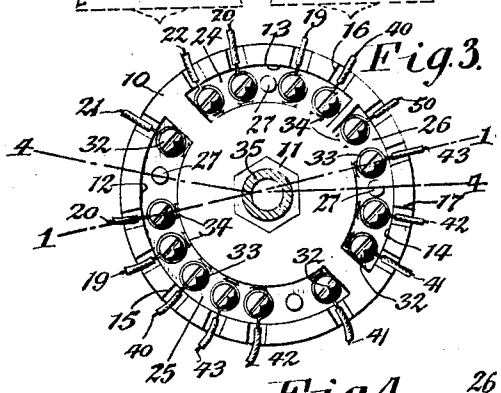


Fig. 4.

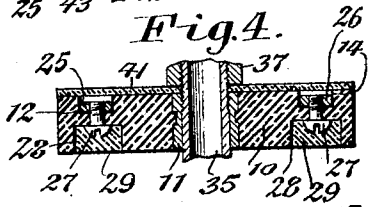


Fig. 5.

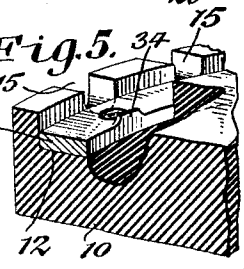
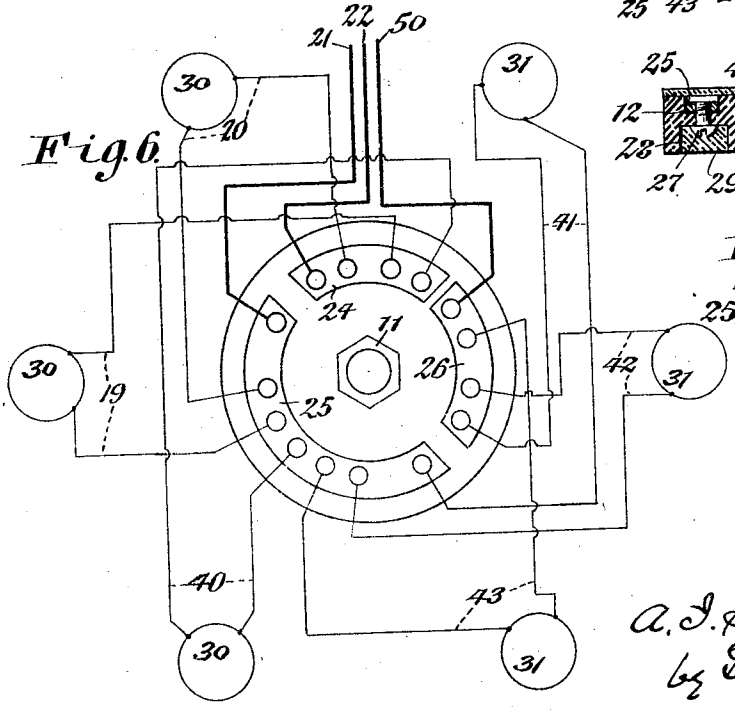


Fig. 6.



Inventor
A. I. Schwinger
by Egan & Popp
Attorneys

Patented June 1, 1926. 1,586,709

UNITED STATES PATENT OFFICE.

ABRAHAM I. SCHWINGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ELLIS J. JANOWITZ, OF BUFFALO, NEW YORK.

ELECTRIC-FIXTURE COUPLING.

Application filed July 8, 1922. Serial No. 573,693.

This invention relates to a coupling for electric fixtures which permits of conveniently wiring such fixtures before mounting the same in a building and has for its object the production of such a coupling which is simple in construction, low in cost, reliable in operation and permits of conveniently and expeditiously connecting the house wires with the fixture wires for completing the electrical connections.

In the accompanying drawings:—

Figure 1 is a sectional elevation showing one form of my invention used for mounting an electric lighting fixture on the ceiling of a room, the section being taken on line 1—1, Fig. 3. Figures 2 and 3 are horizontal sections taken on the correspondingly numbered lines in Fig. 3. Figure 4 is a vertical section taken on line 4—4, Fig. 3. Figure 5 is a fragmentary sectional perspective view of the coupling. Figure 6 is a diagrammatic view, showing one form of wiring capable of being used in connection with my invention.

Similar characters of reference indicate corresponding parts throughout the several views.

My improved coupling may be varied as to details and used in connection with either multiple or series wiring and applied to fixtures of various forms and the organization shown in the drawings is therefore to be regarded as only one example of a suitable installation. As there shown, the coupling comprises a body or block 10 of insulating material which has the form of a circular disk made of fibre or other approved material of this character. In the center of this body is arranged a bushing 11 of metal which is preferably anchored in the body by placing the bushing in a suitable mold and casting the plastic material for the body around the bushing so that the latter will be secured in the body when the plastic material has become dry and hard.

On one side of this body, preferably its upper side, the same is provided with a plurality of grooves, three of such grooves 12, 13, 14, being shown for example in the drawings, and each of these grooves being curved concentrically with the axis of the body, although not necessarily so. On the same side of the body which contains the grooves and extending outwardly from the same to the periphery of the body are a plurality of notches 15, 16, 17, which are adapted to receive the fixture wires 19, 20, 40, 41, 42, 43 and the house wires 21, 22 and 50, which are to be coupled.

Arranged on the bottom of the grooves 12, 13, 14 are a plurality of coupling plates 24, 25, 26 of metal which are curved to conform to the grooves and which are held in place therein by fastening screws 27 passing upwardly through openings in the body and engaging their threaded upper ends with threaded openings in the plates and having the heads at their lower ends arranged in countersunk recesses 28 which are filled with an insulating material 29 such as rosin for the purpose of covering the heads of these screws and preventing accidental contact therewith, as shown in Fig. 4.

The wiring in the drawings is intended for connecting the house or supply wires with one or two lighting circuits, so as to illiminate all or some of the lamps of a fixture. For this purpose, the three house wires are connected respectively with the coupling plates 24, 25, 26, and two sets of lamps 30, 31 are employed, one fixture wire of each lamp 30 being connected with the plate 24 and the companion wire with the plate 25, and one fixture wire of each lamp 31 being connected with the plate 25 and the companion wire with the plate 26, as shown in the diagram in Fig. 6. By means of this wiring, a closing of the circuit, which includes the wires 21, 22, will light only the lamps 30 while a closing of the circuit including the wire 21 on one side of the circuit and the wires 22, 50 on the other side of the circuit, will light all of the lamps and thus permit of either a partial or full illumination of the fixture, as desired.

Each of the house and fixture wires is preferably connected with its respective coupling plate by a binding screw 32 which engages its threaded shank with a threaded opening in one of the plates and which is adapted to clamp a turn 33 of the respective wire between its head and the adjacent coupling plate. It has been found in practice that the turns 33 of these wires are liable to slip from underneath the heads of the binding screws upon tightening the latter and thus produce imperfect connections. To avoid this, the coupling plates are provided adjacent each binding screw opening with a stop lug 34 which is preferably struck up

from the metal of the same in such position that the turn 33 of the wire around the adjacent binding screw will engage this stop so that upon tightening the screw its head will bear firmly against the same and produce a good electrical connection.

The electric coupling is preferably mounted on the fixture by engaging the internal screw thread of the bushing with an externally threaded fixture pipe 35, as shown in Fig. 1. On the lower end of this fixture pipe, the canopy 36 of the fixture may be mounted, and this canopy may carry the several lamps 30, 31, but the disposition of the lamps and the manner of mounting the same may be varied widely to suit the particular design of fixture and the use for which the same is intended.

The upper end of the fixture pipe is preferably connected by a hickey 37 with the conduit 38 containing the house wires 21, 22, 50, this hickey having its lower end connected by a screw joint with the fixture pipe and its upper end connected with the house conduit by a screw joint, while its intermediate part is provided with an opening 39 through which the house wires pass to the binding screws.

In order to conceal the binding screws and prevent accidental contact therewith which otherwise might cross the electric wires and endanger the building, a cover 41 of insulating material such as sheet fibre, is arranged over the top of the body so as to close the upper sides of the grooves and notches therein, as best shown in Figs. 1 and 4. This cover may be held in place by any suitable means, for instance, by clamping its central part between the upper side of the body and the lower or inner end of the hickey.

An electric fixture coupling embodying these improvements is simple and compact in construction and can not only be manufactured economically but the same also facilitates the mounting of electric lighting fixtures and renders the wiring of the same perfectly safe.

I claim as my invention:—

An electric fixture coupling comprising a body of insulating material provided on one side with concentric grooves and radial notches extending from said grooves to the periphery of the body and adapted to receive electric wires, curved metal coupling plates arranged in said grooves, means for connecting the wires to said plates, a metal bushing anchored in said body and having an internal screw thread adapted to receive an externally threaded conduit, a hickey secured to one end of said conduit, and an insulating cover arranged over said grooves and notches and engaging underneath the inner end of said hickey.

ABRAHAM I. SCHWINGER.