

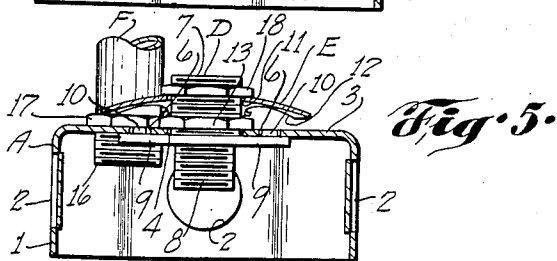
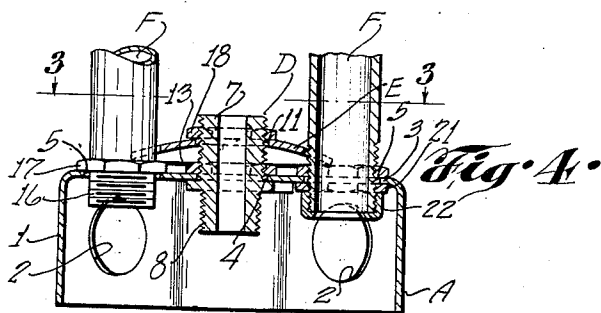
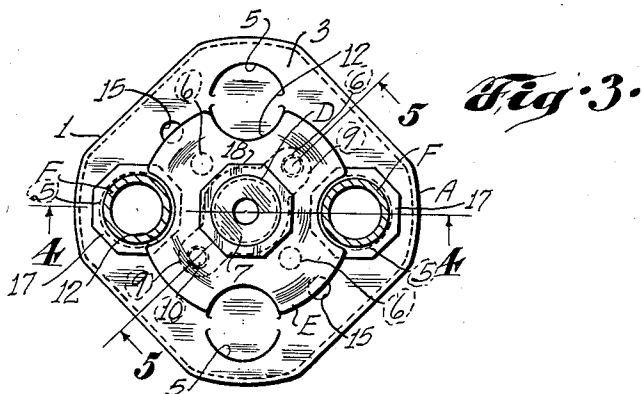
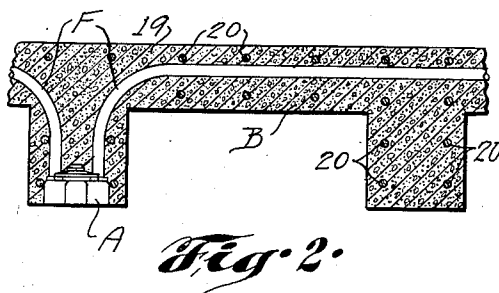
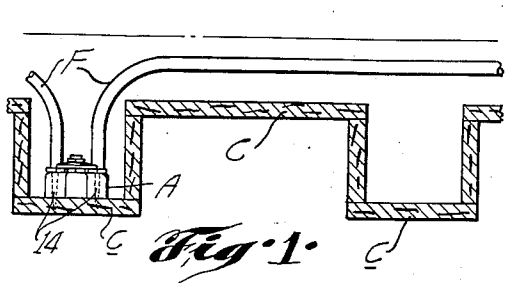
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F. G. ROHN

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ELECTRIC CONDUIT SECURING DEVICE

Filed March 13, 1929



INVENTOR
Frederick G. Rohn.
By *Carph Niles*
ATTORNEY

UNITED STATES PATENT OFFICE

FREDERICK G. ROHN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO DANIEL R. COHEN, OF ST. LOUIS, MISSOURI

ELECTRIC CONDUIT SECURING DEVICE

Application filed March 13, 1929. Serial No. 346,567.

This invention relates generally to the installation of and connection between electric conduits and junction boxes and, more particularly, to a certain new and useful improvement in devices especially adapted for securing the conduits and box together.

Under present day conditions, methods, and devices, so far as I am aware, great inconvenience and considerable labor and loss of time are experienced in the connected installation in concrete structures of the electric wiring conduits and junction boxes; and my present invention has for its prime object the simplification of such methods and the improvement generally of such devices, whereby the connected-installation of the conduits and junction-box may be completed with convenience and facility, resulting in a saving both in labor and time.

And with such object in view, my invention resides in the provision of a junction box so equipped with conduit-engaging and securing means that the conduit may, without requiring or necessitating any manipulation of the box, be readily engaged therewith prior to pouring of the concrete and thereafter firmly held in proper position both during the pouring and setting of the concrete, and in the novel features of form, construction, arrangement, and combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawings,—

Figure 1 illustrates a junction-box and its associate parts of my invention in course of installation in a building or other such structure;

Figure 2 illustrates the junction-box and its associate parts in installed position in the building or structure;

Figure 3 is an enlarged sectional plan view taken approximately on the line 3—3, Figure 4; and

Figures 4 and 5 are transverse sectional views taken approximately along the lines 4—4 and 5—5, respectively, Figure 3.

Referring now more in detail and by reference characters to the drawings, which illustrate a preferred embodiment of my invention, A designates a junction-box of any

standard or approved type, the same being of suitable dimensions, preferably of approximately rectangular contour with rounded corners, formed as is usual in its side wall 1 with a plurality of "knock-outs", as at 2, 2, formed centrally in its one end wall 3 with a preferably circular aperture, as at 4, and formed also as is usual in its end wall 3 with a plurality of suitably located "knock-outs", as at 5, 5. Also provided in the box end-wall 3, in preferably diametrically opposite pair relation, are openings 6, 6, for purposes presently appearing.

B designates a fragment of a finished combined ceiling and floor of a re-inforced concrete structure. My present junction-box A and its associated parts are especially adapted, though not restricted, for use with such structures, in the formation of which, as is well-known, suitable wooden forms C are commonly employed.

D designates a threaded stud, a portion 7 of which is of a diameter to preferably more or less snugly fit the aperture 4, and projecting longitudinally from the stud-portion 7 is an integral preferably reduced concentric and also threaded extension 8. Intermediate its portions 7, 8, the stud D also preferably integrally includes a pair of diametrically opposed arms 9, 9, each formed upon a side-face with a boss 10 of a diameter to, in turn, more or less snugly fit the openings 6.

E designates a clamping-disc which is of suitable diametrical dimension relatively to the box end-wall 3 and its series of "knock-outs" 5, which is provided centrally with an opening or aperture 11 of dimensions to accommodate the stud-portion 7, and which marginally or peripherally is formed with a plurality of preferably arcuate notches 12 corresponding in number with the number of the "knock-outs" 5, and with which "knock-outs" 5 the several notches 12 are adapted, when the disc E is in operative position upon the box A, as presently appears, to respectively register. Preferably, though not necessarily, the disc E is of concavo-convex formation, as shown, for purposes soon developing.

In use, a stud D is projected at its portion 7 through the box-apertures 4, its arms 9 en-

gaging the under or inner face of the box end-wall 3 with the bosses 10 seated in a pair of the diametrically opposite end-wall openings 6. A lock-nut 13 is then threaded down upon the stud-portion 7 to engage the upper or outer face of the box end-wall 3, and the stud D thereby rigidly secured in operative position upon and in relation to the box A, its portion 7 being outwardly presented and its portion 8 being inwardly presented relatively to box A.

A box A so equipped with a stud D is now suitably located, preferably upon one of the beam-portions c, of the forms C and temporarily or initially secured or fixed thereto, as by nails 14 passed into the forms C through additional openings 15 provided for the purpose in the box end-wall 3.

One or more suitably formed conduits or pipes F, each threaded, as at 16, and provided thereupon suitably adjacent its end with a spacing-nut 17, is disposed at its end 16 through one of the "knock-outs" 5, with its washer or nut 17 resting upon the outer face of the box end-wall 3. Thereupon, the disc E is fitted at its opening 11 upon the stud-portion 7 and to engage at one of its notches 12 upon the nut or nuts 17 of the seated conduit or conduits F, as shown. A disc-lock-nut 18 is now threaded down upon the stud-portion 7 to securely retain the disc E in conduit-clamping position, the disc E, through its preferred concavo-convex formation lending itself, as the nut 18 is screwed down thereupon, to yieldingly increase the clampwise binding engagement between the nut or nuts 17 and the box A. Thus in a simple, but most efficient and convenient manner, and without manipulation or upsetting of the box A, and with a considerable saving in labor and time, the several conduits F are firmly maintained in proper upstanding relation for facilitating completion of the floor and ceiling structure B, which is now accomplished by suitably disposing upon the forms C the usual concrete or other cementitious mass 19 and its interspersed re-inforcing bars 20.

The structure B having set and hardened, the forms C are removed, thereby leaving exposed through the open end of the box A not only the stud-portion 8 for the convenient engagement therewith of the desired electric or other fixture, but also the several conduit-ends 16 for facilitating proper disposition of the wiring, as will be well understood, the installation being completed by clipping off the temporary securing nails 14 and by disposing upon the ends 16 of the respective conduit F an additional securing nut 21 to engage the under face of the box end-wall 3 and then the usual finishing end-wall-apertured cap 22.

It is to be understood that changes and modifications in the form, construction, arrangement, and combination of the several

parts of my new conduit and junction box securing means may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In combination, a junction-box having an end wall provided with an aperture, a stud upon the box having a portion presented outwardly of and at an angle to said end wall, an apertured clamping-disk disposed over said end wall and fitting at its said aperture upon the stud for securing-connection with a conduit projected into the box through said end wall aperture, and a nut threaded upon the stud into engaging relation with the disk for securing the same in conduit-clamping engagement.

2. In combination, a junction-box having an end wall provided with an aperture, a stud upon the box having a portion presented outwardly of and at an angle to said end wall, a peripherally notched apertured clamping-disk disposed over said end wall and fitting at its said aperture upon the stud for securing connection at a peripheral notch with a conduit projected into the box through said aperture, and a nut threaded upon the stud into engaging relation with the disk for securing the same in conduit-clamping engagement.

3. In combination, a junction-box having an end wall provided with an aperture, a stud upon the box having a threaded portion presented outwardly of and at an angle to said end wall, a peripherally notched apertured clamping-disk of concavo-convex formation disposed over said end wall and fitting at its said aperture upon the stud for securing connection at a peripheral notch with a conduit projected into the box through said aperture, and a nut threaded down upon the stud into engaging relation with the disk for securing the same in conduit-clamping engagement.

In testimony whereof, I have signed my name to this specification.

FREDERICK G. ROHN.