

July 19, 1960

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2,945,705

FITTING FOR CONCRETE SLAB

Filed Sept. 20, 1957

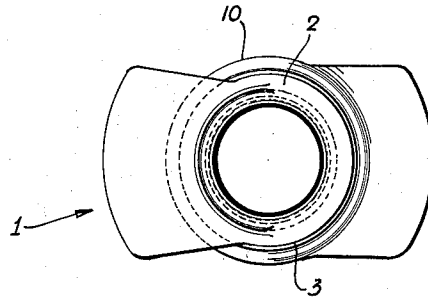


Fig. 3

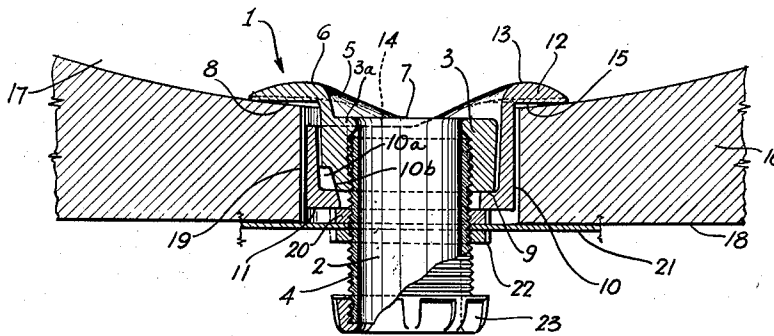


Fig. 1

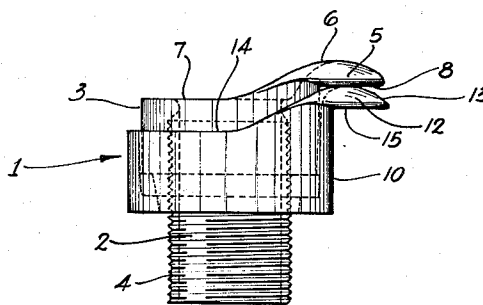


Fig. 2

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FITTING FOR CONCRETE SLAB

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Filed Sept. 20, 1957, Ser. No. 685,095

2 Claims. (Cl. 285-18)

This invention relates to fittings for electrical wire and the like.

It is common practice to employ cellular concrete slabs in the formation of floors or ceilings particularly in industrial commercial and public buildings. The passages in such slabs are frequently employed for the reception of electrical and other service wires. The tapping of such slabs to provide access to the wire containing passages and the provision of an acceptable fitting through which the wires may be led is difficult and expensive. Usually, a large hole is drilled through the slab into the passage therein, a tubular fitting positioned in the opening and the remainder of the opening filled with grouting or concrete to secure the fitting in place in the slab. In addition to being a costly operation, it is time-consuming and wasteful.

It is an object of this invention to provide a tubular fitting for passage of wires from a cellular concrete slab which is simple in structure and convenient to manufacture, and which may be placed directly in a drilled hole in said slab and rigidly positioned therein without the use of concrete, grouting or the like.

The fitting, in accordance with the invention, comprises a tubular member having a first ring in screw-threaded engagement with one end thereof, and a wing extending laterally from said first ring, and a second ring encircling said tubular member and having a shoulder engageable with said first ring, said second ring also having a laterally extending wing and being rotatable with respect to said tubular member to place said wings in overlapping position or in diametrically opposed relation.

The fitting will be described with reference to the accompanying drawing, in which

Figure 1 is a side elevation, partly in section, of a fitting in accordance with the invention,

Figure 2 is a side elevation of the fitting in a different position thereof, and

Figure 3 is a plan view of the fitting.

In the drawing, 1 is a fitting in accordance with the invention and comprises an externally threaded tubular member 2, and a ring 3 in screw-threaded engagement with one end thereof and having an internal annular rib 3a adapted to overlie the end edge of member 2. Ring 3 has a laterally extending wing 5. As shown, wing 5 has a curved top surface 6 which projects slightly upwardly from the adjacent plane end surface 7 of the ring but merges gradually thereinto, and a flat bottom surface 8 which is in substantially the same plane as end surface 7. It will be apparent that an annular shoulder 9 is constituted by the lower end of the ring 3.

A second ring 10 encircles the first ring 3 with just sufficient clearance to permit ease of rotation of ring 10 with respect to ring 3. Ring 10 has an internally extending annular shoulder 11 at one end for engagement with the annular shoulder 9. Ring 10 has a wing 12 extending laterally from its other end. Wing 12 also has a curved top surface 13 which projects slightly upwardly

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from the adjacent plane end surface 14 of the ring 10 but merges gradually thereinto, and a flat bottom surface 15 which is in substantially the same plane as surface 14.

In use, the fitting is adapted to be applied to a concrete slab 16 having a passage 17 therein to which access is desired from the outer face 18 thereof. A hole 19 is drilled through the slab from face 18, such hole being of a diameter approximately equal to or slightly larger than the exterior diameter of ring 10. The ring 10 is rotated with respect to tubular member 2 to place wing 12 in underlapping relation to wing 5. In this position of the fitting, by slightly tilting it, the ring 3 with encircling ring 10 may be placed in the hole 19 with the wings 5 and 12 projecting laterally of the edge thereof within the passage 17. Such placing of the rings is rendered possible because the width of each ring, as clearly shown in Figure 3, is not greater than the external diameter of ring 10. The tubular member 2 with ring 3 is now rotated relatively to ring 10 to place wing 5 in diametrically opposite relation to wing 12, as shown in Figure 1. Preferably, the ring 10 carries, on its interior surface, a stop 10a which is adapted to enter a recess 10b in the shoulder 9 when the wings are in diametrically opposite relation. A locknut 20 is now applied to the lower end portion 4 of tubular member 2 to lock the ring 10 in such position to member 2. It will be observed that, in the latter position of wings 5 and 12 their bottom surfaces 8 and 15 are in substantially the same plane and are arranged to seat upon the surface of passage 17 adjacent hole 19, the axial extent of ring 10 and ring 3 with locknut 20 being approximately equal to the depth of the hole 19 whereby the end surface of locknut 20 is about flush with the face 18 of the slab.

An outlet box, fixture or like device 21 may now be applied to the fitting and secured thereto as by an additional locknut 22, the box engaging the outer face 18 of the slab, whereby the entire assembly is firmly secured in position. A ring 23 is applied to the outer end of the tubular member to complete the fitting.

I claim:

1. A building slab fitting for passage of electrical wires and the like comprising an externally threaded tubular member, a ring threadedly mounted on one end portion thereof and having an annular rib engageable with the end edge of said tubular member, said ring also having a laterally extending wing, said wing having a slab-engageable surface lying in a plane spaced outwardly from the plane of said end edge of said tubular member, and a second ring encircling said first ring and having an annular shoulder engaging the end edge of said first ring, said second ring also having a wing extending laterally therefrom and being rotatable to vary the position of said wings with respect to each other, said second wing having a slab-engageable surface lying in a plane spaced outwardly from the plane of said end edge of said tubular member, each said wing having a width not greater than the external diameter of said second ring, and means for locking said rings against rotation with respect to said tubular member.

2. In a building slab having a passage therein, a fitting providing access to said passage for electrical wires and the like comprising an externally threaded tubular member, a ring threadedly mounted on one end portion thereof and having an annular rib engageable with the end edge of said tubular member, said ring also having a laterally extending wing, said wing having a slab-engageable surface lying in a plane spaced outwardly from the plane of said end edge of said tubular member, and a second ring encircling said first ring and having an annular shoulder engageable with the end edge of said first ring, said second ring also having a wing extending laterally

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therefrom and being rotatable to vary the position of
said wings with respect to each other, said second wing
having a slab-engageable surface lying in a plane spaced
outwardly from the plane of said end edge of said tu-
bular member, each said wing having a width not greater
than the external diameter of said second ring, said slab
having a hole extending into said passage, one end of
said fitting with said wings being insertable through said
hole when said wings are in underlapping relation to
each other, and means for locking said rings to said tu-
bular member.

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References Cited in the file of this patent

UNITED STATES PATENTS

1,785,709	Campau	Dec. 16, 1930
1,878,579	Gober	Sept. 20, 1932
2,403,247	Sullivan	July 2, 1946

FOREIGN PATENTS

955,019	France	June 20, 1949
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