C. H. & H. R. LOUGHRIDGE.

OUTLET BOX.

APPLICATION FILED SEPT. 24, 1915.

1,228,330.

Patented May 29, 1917.

FIG. 3

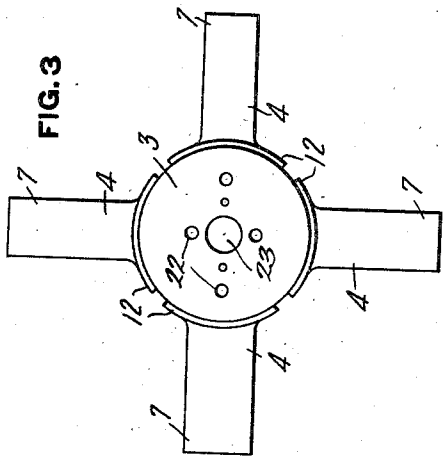


FIG. 1

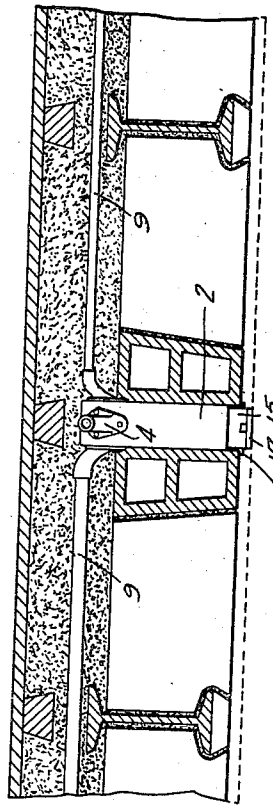


FIG. 2

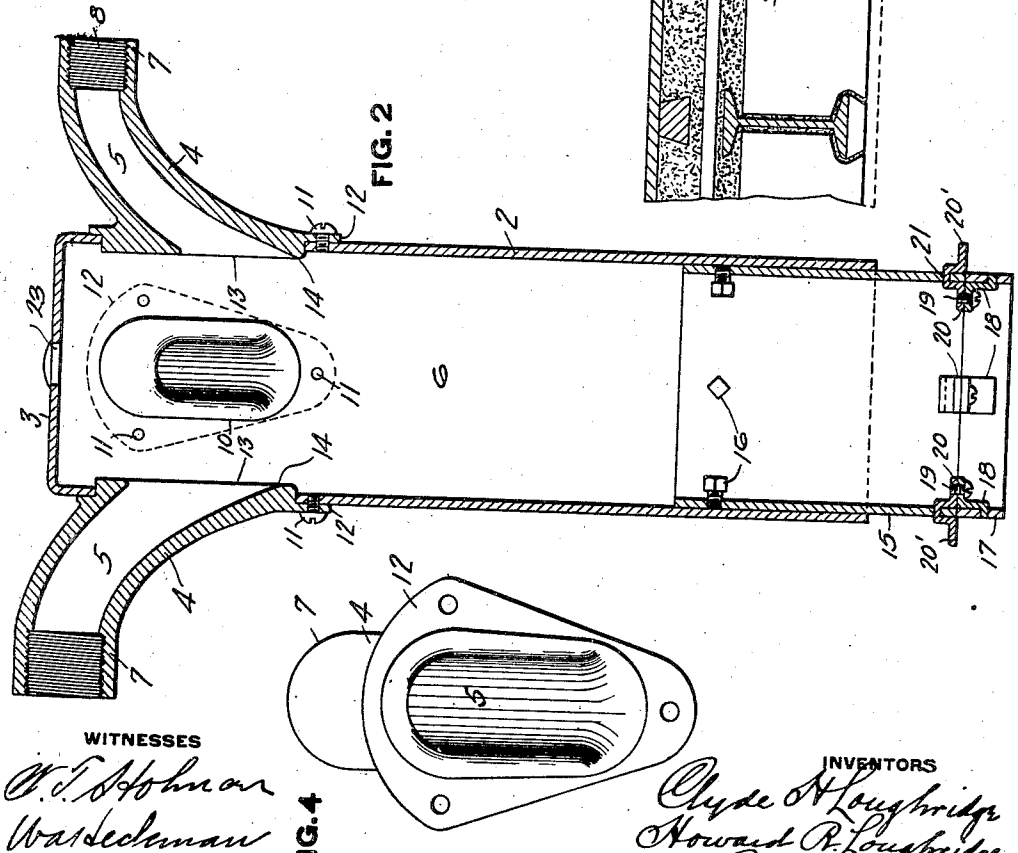


FIG. 4

WITNESSES

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UNITED STATES PATENT OFFICE.

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OUTLET-BOX.

1,228,330. Specification of Letters Patent. Patented May 29, 1917.

Application filed September 24, 1915. Serial No. 52,362.

To all whom it may concern:

Be it known that we, CLYDE H. LOUGHRIDGE and HOWARD R. LOUGHRIDGE, citizens of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Outlet-Boxes, of which the following is a specification.

Our invention relates to improvements in outlet boxes for electrical conductors, and has for its object to provide a box of this type adapted to be incorporated in the floor or wall of a building for distribution of the wiring.

The invention comprises a main casing having at one end portion a plurality of lateral outlet conduits adapted for connection with conduit pipes, of a novel construction, and with its other end so constructed as to adapt it to positioning with relation to the ceiling or wall surface, and connection with any associated mechanism.

One preferred form of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view through a portion of a floor structure, showing the application of our invention.

Fig. 2 is an enlarged vertical sectional view of the outlet box.

Fig. 3 is a plan view of the box.

Fig. 4 is a detail view from the inner side of one of the lateral branch conduit connections.

Referring to the drawing, the main body portion 2 of the box consists of a casing, preferably cylindrical, having a closed top 3 and an open bottom portion. Extending through the side wall of the casing at one or more locations, preferably four, are the laterally directed curved branch or elbow joint members 4. Each of said elbow members has a curved interior 5 leading downwardly into the main interior 6 of the box, whereby to introduce the conductors thereinto in the general direction of its depth, and each elbow is curved outwardly, terminating in a horizontally directed end portion 7, interiorly threaded, as at 8, for connection therewith of an ordinary pipe 9, through which the conductor leads.

The several pipes 9 may be of different sizes, according to the number of wires contained therein, for which reason it is desirable that the several elbow members shall be of corresponding size and adapted to connection with the threaded ends of said pipes. The main body portion of the several elbows 4 may therefore vary in cross section and capacity, as shown, each, however, having the same general curvature from a horizontal toward a vertical direction.

A feature of importance and novelty in the elbow members is that each is of standard size as to its inner or attaching portion, and of the same general construction. Standard sized openings 10 are cut through the wall of the box, of general oval form, at varying positions, as are also screw holes for attaching screws 11. There are preferably three of such screw holes surrounding each opening, and the several elbow members 4 are provided with flanges 12 adapted to fit the curvature of the box, and having corresponding registering holes, whereby the elbow may be securely attached to the side of the shell.

Inwardly beyond the securing flange, the body portion of the elbow extends, as indicated at 13, sufficiently far beyond the inner edge to insure delivery of the conducting wire beyond any possibility of injurious contact with the inner portion of the wall, projecting screws, or other injurious interference.

The inwardly projecting portion 13 thus reinforces the elbow member and provides an exit opening having the surrounding rounded boundary edges 14, over which the wires may be drawn with safety. By this construction it will be seen that elbows of different size may also be inserted in any one of the several openings, irrespective of the particular position of the elbow, and there secured and held.

Extending inwardly of the lower end of the box 2 is the telescoping shell extension 15 having securing set screws 16 adapted to hold the shell 15 in any desired position, and to thereby adjust the operative length of the box to the depth of the floor construction, and with relation to the ceiling below and to whatever additional construction or elements are to be connected therewith, as a cap, or chandelier, or the like.

If desired, a terminal plaster ring 17 is

secured to the end of shell 15 by means of inner lugs 18 and screws 19 engaging lugs 20, as shown. Said lugs are conveniently formed as stirrups made of sheet metal extending bodily through the lower portion of shell 15, as at 21, and bent downwardly and outwardly providing the flanges 20 and 20′, as will be readily understood.

With the construction as thus made, ample provision is had for adapting the distributer box to wall structures of different design and thickness, and the several conductors are easily introduced into the upper portion of the box and then downwardly therethrough and branched, or connected in any suitable manner with various utilizing devices, as lamps, etc.

The upper end of the box, closed as stated, by the integral top 3, may, if desired be provided with suitable holes 22 for connection with a fastening stud or studs, as will be readily understood by those skilled in the art, and with a central hole 23 for a pipe hanger.

The advantages of the invention will be readily appreciated by all those familiar with this class of mechanism.

It obviates the necessity of special fitting, cutting of metal, or other changes, and especially avoids the necessity of bending pipes to a curvature and introducing them down through a ceiling pan, or the like.

A further special advantage is that the box may be set in position in the floor framing and temporarily secured on the underframing or form by toe nailing through the lugs 20′, after which the tiling of the floor may be built in around the box, for permanent mounting. We thus overcome the necessity of any cutting of the tile, and by the telescoping extension, adapt the box to floors of varying depth, thereby obtaining the advantage of standard size boxes.

The size, proportions, or other details of the device may be variously changed or modified by the skilled mechanic, but all such are to be considered as within the scope of the following claims.

What we claim is:

1. In an outlet box, the combination of a cylindrical casing having an integral top provided with perforating openings therethrough for attaching devices, and provided with a plurality of oppositely arranged elongated rounded end openings through its cylindrical wall, and a plurality of laterally arranged connecting tubular elbow members each provided with an individual upwardly and outwardly curved interior conduit and a threaded connecting terminal disposed for connection with a horizontal pipe extension and having a vertically elongated portion extending through one of said openings in the casing wall and beyond the inner face thereof and providing an inner terminal portion of the elbow conduit rounded on its inner edges whereby the curved interior opening leads therethrough downwardly to the interior of the casing, each of said elbow members having a surrounding flange curved to the outer contour of the casing and provided with holding screws engaging the casing, substantially as set forth.

2. An outlet box having a telescoping terminal shell provided with means for adjustably securing it in position, terminal flange devices extending through the terminal shell, and a registering plaster ring having corresponding attaching flanges and screws.

3. In an outlet box, the combination with a cylindrical casing, of a telescoping cylindrical plaster ring terminal provided with interior securing lugs, and securing means therefor consisting of stirrups extending through the lower edge portion of the casing and having inner and outer terminal flanges, and means connecting the inner flanges thereof with the plaster ring lugs.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

CLYDE H. LOUGHRIDGE.
HOWARD R. LOUGHRIDGE.

Witnesses:
W. A. Heckman,
Edwin O. Johns.