Nov. 1, 1932. M. J. DE MASK 1,885,513

MULTIPLE ELECTRICAL CONDUIT RECEPTACLE AND PLUG

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Fig. 1.

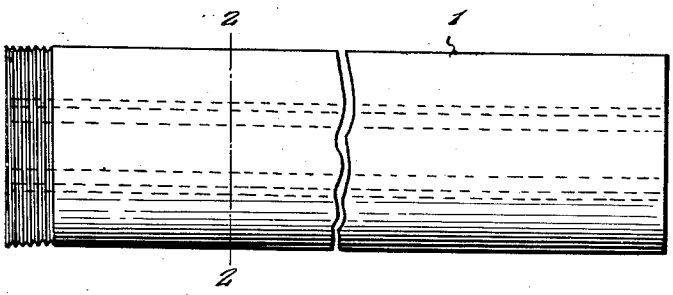


Fig. 2.

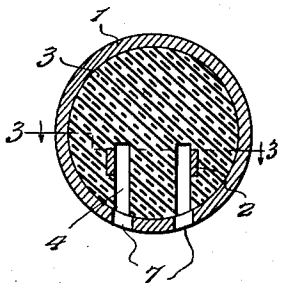


Fig. 3.

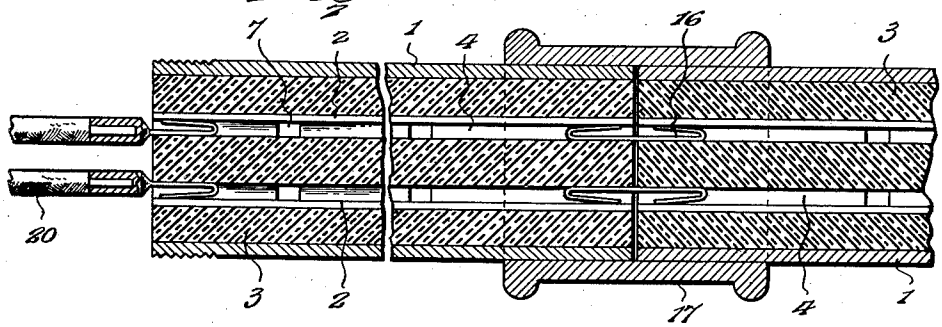
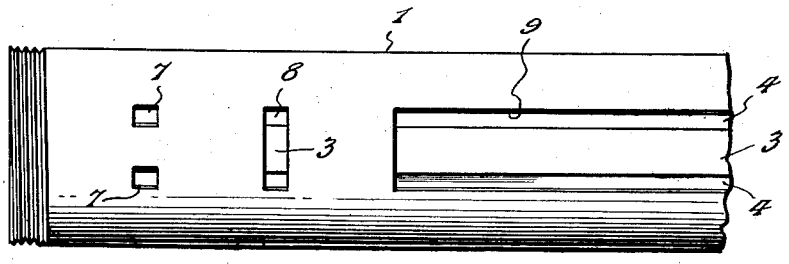


Fig. 4.



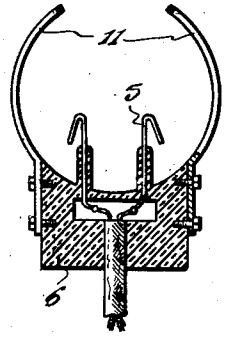


Fig. 5.

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MULTIPLE ELECTRICAL CONDUIT RECEPTACLE AND PLUG

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Fig. 6.

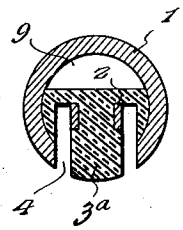


Fig. 7.

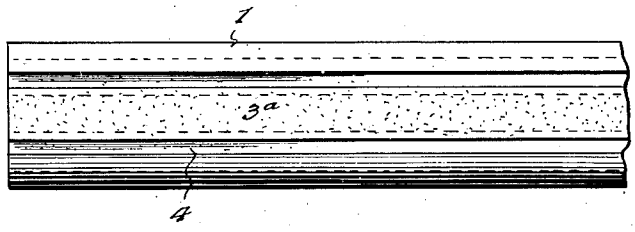


Fig. 8.

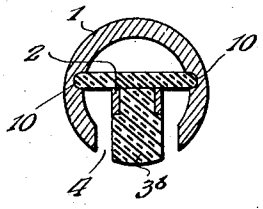


Fig. 9.

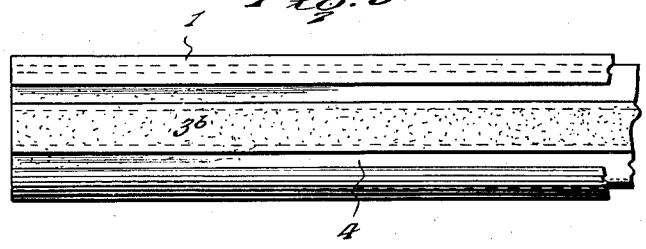


Fig. 10.

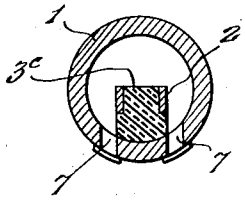


Fig. 11.

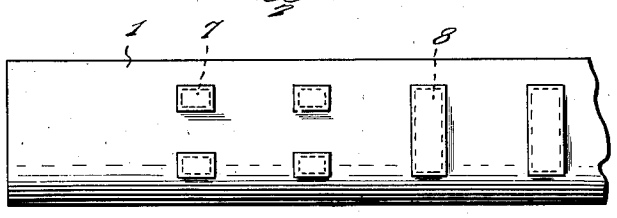


Fig. 12.

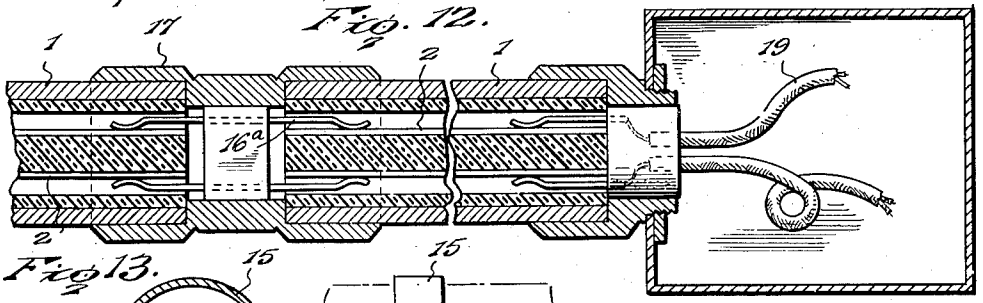


Fig. 13.

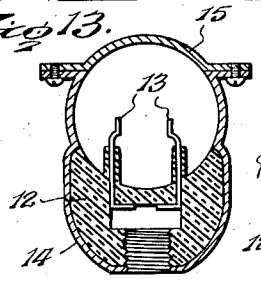
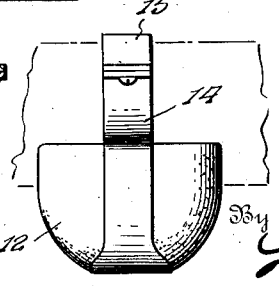


Fig. 14.



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UNITED STATES PATENT OFFICE

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MULTIPLE ELECTRICAL CONDUIT RECEPTACLE AND PLUG

Application filed December 8, 1927. Serial No. 238,633.

This invention provides a conduit receptacle to be applied to the walls or ceilings of factories, garages, shops and like places where it is required to plug in fixtures at different points.

The invention contemplates a core of insulating material, electrical conductors mounted upon the core and maintained in spaced relation thereby and a tubular casing enclosing the core and electric conductors and forming protective and reinforcing means therefor. The conduit receptacle may be of any length, such as ten feet, more or less, and the core may be of any insulating material best adapted for the purpose.

While the drawings illustrate a preferred embodiment of the invention it is to be understood that in adapting the means to meet specific needs and requirements, the design may be varied and changes in the minor details of construction may be resorted to within the scope of the invention as claimed, without departing from the spirit thereof.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and the drawings hereto attached, in which—

Figure 1 is a top plan view of a conduit receptacle embodying the invention, an intermediate portion being broken away.

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

Figure 3 is a horizontal sectional view on the line 3—3 of Figure 2, showing the joint between two lengths of conduit.

Figure 4 is a view of part of a length of conduit as seen from the bottom side.

Figure 5 is a sectional view of a plug.

Figure 6 is a sectional view of a modified form of conduit.

Figure 7 is a detail view of the modification shown in Figure 6, as seen from the bottom side.

Figure 8 is a sectional view of a further modification.

Figure 9 is a view of the modification shown in Figure 8, as seen from the bottom side.

Figure 10 is another modification, as it appears in section.

Figure 11 is a bottom view of the modification shown in Figure 10.

Figure 12 is a longitudinal sectional view of a further modification showing the joint between two lengths and the manner of connecting the conduit to a box.

Figure 13 is a sectional view of a different form of plug.

Figure 14 is a side view of the plug illustrated in Figure 13.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 designates the casing which usually consists of metal of tubular form. This casing may be of any length and is adapted to be secured to the walls and ceilings of the structure to be wired, so that fixtures may be plugged therein at determinate convenient points. A core of insulating material is fitted within the casing 1 and is protected and strengthened thereby. This core may be variously formed as illustrated in Figures 2, 6, 8 and 10 of the drawings, and may consist of any material, such as composition, or fiber. Electric conductors 2 are mounted upon the core and are held in spaced relation thereby. The core 3 shown most clearly in Figures 2 and 3 fills the casing 1 and is formed with parallel channels 4, in the outer walls of which are embedded the electric conductors 2. A side of the casing 1 opposite the channels 4 is cut away for the reception of the prongs 5 of a plug 6 to admit of any fixture being plugged in at any point in the length of the conduit receptacle. The cut away portions of the casing may consist of pairs of openings 7 or a transverse opening 8 or a longitudinal opening 9. The pairs of openings 7 are adapted to receive the prongs 5 of the plug and register with the channels 4. The transverse opening 8 is for a like purpose and connects with both channels 4. The openings 7 and 8 are of a size to receive the prongs 5 and are located at intervals in the length of the conduit. The opening 9 may be of any length, thereby admitting of plugging in a fixture at any point. As indicated in Figures 7 and 9 a portion is re-

moved from the side of the casing 1 and provides an opening coextensive with the length of the casing, thereby admitting of the plug being slid along the length of the conduit if desired, without necessitating the removal of the plug and the replacement thereof and the consequent interruption of current through the fixture. The openings 7 and 8 may be closed by knock-outs, as indicated most clearly in Figure 11. The core 3*a* illustrated in Figure 6 partly fills the casing 1, leaving a space 90 which may be utilized as a way for extra conductors or for any desired purpose. In all other respects the core 3*a* is similar to the core 3, shown in Figures 2 and 3. The core 3*b* shown in Figure 8 is of T-form in cross section and the head portion has its longitudinal edges fitted in grooves 10 formed in opposite sides of the casing 1.

In the modification shown in Figure 10 the core 3*c* consists of a strip and the same is adapted to be secured within the casing 1 in any determinate way.

The plug 6 shown in Figure 5 has spring fingers 11 attached to opposite sides and outwardly curved, so as to embrace opposite sides of the conduit and assist materially in retaining the plug in place. The plug 12 shown in Figures 13 and 14 is of insulating material and the prongs 13 have their ends deflected inwardly so as to engage the electric conductors 2 of the form of conduit shown in Figures 6, 8 and 10, and which conductors are disposed at the inner sides of the openings through which the prongs are introduced when placing a plug in position. A metal strap 14 extends along three sides of the plug 12, and its end portions project beyond the plug and are oppositely curved to fit snug against opposite sides of the conduit receptacle. A strap 15 connects the ends of the strap 14 and extends over the conduit and retains the plug 12 in place.

Connectors 16 and 16*a* are provided for coupling the conductors 2 of adjacent lengths or sections of conduit. The connectors 16 have their end portions recurved to engage the outwardly disposed conductor 2, whereas the connectors 16*a* have their end portions deflected to make positive engagement with the inwardly disposed conductors 2, as shown most clearly in Figure 12 of the drawings. A sleeve 17 provides coupling means for the contiguous ends of adjacent lengths or sections of conduit. The parts are connected by a slip joint which may be made secure in any determinate way. A box 21 has the conduit coupled thereto in any usual or preferred way and the lead in wires 19 may be coupled to the conductors 2 by having their ends slipped into the channels, as will be readily understood. When the box is dispensed with, as indicated in Figure 3, the lead-in wires 20 are introduced into the channels in which are located the conductors 2. The ends of the lead-in wires may be deflected as indicated in Figure 12 or recurved, as shown in Figure 3, depending upon the relative position of the conductors 2.

Having thus described the invention, I claim:

1. A multiple electric conduit comprising a casing constructed with openings in its side to receive plug terminals, a core of insulation within the casing having longitudinal walls registering with the openings in the casing, the core being spaced from the casing at the closed side thereof to form a way, and conductor strips embedded flush in the longitudinal walls of the core.

2. A multiple electric conduit comprising a casing constructed with openings in its side to receive plug terminals and having longitudinal grooves at opposite points of its inner surface, a core of insulation T-shaped in cross section having the sides of the stem of the T registering with the openings in the casing and the edges of the head of the T seating in the longitudinal grooves of the casing, and conductor strips embedded flush in the sides of the stem of the T.

In testimony whereof I affix my signature.

MARTIN J. DE MASK. [L. S.]