O. K. MITCHELL.

ELECTRIC CONDUIT MOLDING.

APPLICATION FILED APR. 30, 1914.

1,182,783. Patented May 9, 1916.

Fig. 1

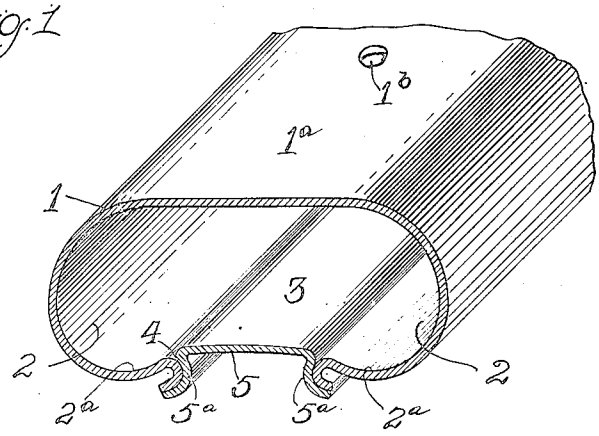
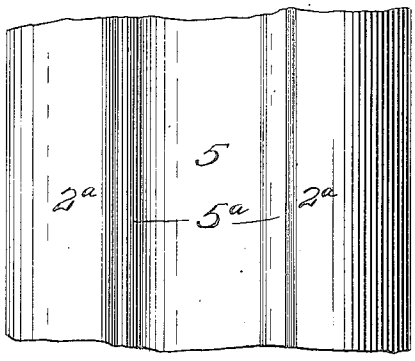


Fig. 2



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ELECTRIC-CONDUIT MOLDING.

1,182,783. Specification of Letters Patent. Patented May 9, 1916.

Application filed April 30, 1914. Serial No. 835,510.

To all whom it may concern:

Be it known that I, OSSIAN K. MITCHELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric-Conduit Molding, of which the following is a specification.

This invention relates to molding of hollow strips adapted to be secured in position to receive and contain electric conductors, and particularly to molding which is constructed of rolled metal adapted to receive insulated conductors.

The object of the invention is to simplify the construction and render the article more suitable for its purpose; and to these ends, the invention consists in the novel features of construction hereinafter fully described in connection with an illustrative embodiment of the invention, and particularly pointed out in the claims.

In the accompanying drawing—Figure 1 is a perspective view of a section of conduit embodying the features of the invention, and Fig. 2 is a plan view of the same.

It is desirable to construct molding conduits, of the class to which the present invention belongs, of sufficient capacity to contain at least three wires, and at the same time to restrict their dimensions as much as practicable, and to these ends it has been proposed to roll the conduit out of sheet metal with an intermediate longitudinally extending opening through which the wires may be separately introduced, and to provide such opening with a closing cap suitably constructed to releasably interlock with the edges of the opening. But such devices as heretofore constructed have been unsatisfactory; some of them because not complying with underwriters' requirements, in that they embodied abrading or cutting edges presented within reach of the insulated wire with possibility of gradually wearing through the insulation under vibration; others because inefficient in confining the wires and retaining the closure in position until necessary to remove it; and still others because they embodied a construction of closure which necessitated longitudinal telescoping movement to put it in place or remove it, which made it impracticable to use the molding in many places. Still others were inconvenient because not adapted to retain an inserted conductor while an additional conductor is being introduced, or to retain the introduced portion of a conductor while following portions are being introduced and before the closing cap is applied. The present invention avoids all of these objections and produces a cheaply constructed, easily installed, conveniently used, and permanently secure conduit molding by rolling a suitable strip of sheet metal to produce a body portion 1, with a pair of laterally disposed longitudinal wire spaces 2, and an intermediate wire space 3, and with an intermediate longitudinal opening 4 adapted to be closed by a cap 5; the confining walls 2^a of the side spaces 2 being extended not only inwardly toward each other, but slightly upwardly to produce trough-like seats for the wire, and at the same time present their inner edges in position to expand the longitudinal opening as they yield inwardly under the pressure of the cap being inserted, but to constrict the opening under pressure tending to displace the cap in an outward direction, and, therefore, developing a more secure grip upon the cap. Again, the inner edges of the confining walls 2^a are rolled outwardly and backwardly for the threefold purpose of removing the edges of the metal from the interior of the conduit; presenting an increased friction surface for the sides of the cap; and removing the said edges from the longitudinal opening of the conduit, so that they will assist in wedging the wire through the opening and will not cut the insulation while the wire is being introduced.

The cap or cover embodies a suitable body-portion 5 provided with flanges 5^a turned backwardly and rolled outwardly to conform to the rolled gripping edges of the longitudinal opening; the form being such that shoulders are provided on the side walls of the cap within the walls of the opening to resist displacement of the cap, either under its own weight or under the weight of the wires, or the pressure under which the wires are left when they are crowded within the conduit. The rolled flanges thus provided on the cap are preferably continued outward a distance sufficient to form an effective limiting stop to arrest the cap or closure in the proper position when forced into place.

As already suggested, the presentation of the confining walls of the conduit to the

closing cap is such that the walls of the longitudinal opening tend to spread apart under the inserting pressure of the cap and tend to approach slightly when the cap is pressed in the direction to remove it, so that any outward load upon the cap within the conduit or upon the conduit walls adjacent to the cap, tends to bind the cap more tightly rather than loosen it.

The attaching base or body 1 of the conduit is preferably flattened, as shown at 1^a, to better adapt it to lie against the surface to which it is to be secured, and for the latter purpose, it may be provided at suitable intervals with perforations 1^b.

The described disposition of the metal edges of the conduit and cap improves the appearance of the molding; hence, the construction involves advantages of an aesthetic nature, as well as the described advantages of a functional or practical nature.

I claim:

1. A conduit for wires comprising a metal body having laterally disposed longitudinal wire spaces and an intermediate longitudinal opening for introduction of the wires; the confining walls of the lateral wire spaces being curved toward each other and inwardly, and said conduit being provided with a closing cap constructed to fit snugly between the opposed inner rims of said confining walls and constructed to engage the same in the direction to resist displacement of the cap.

2. A conduit for wires comprising a metal body having laterally disposed longitudinal wire spaces with the confining walls thereof extended toward each other and inwardly, but spaced apart to leave an intermediate longitudinal opening for the introduction of the wires; the edges of the metal being turned outwardly away from the interior of the conduit, and backwardly from said longitudinal opening; said conduit having a closing cap with side walls conforming to and snugly engaging with the side walls of the opening thus formed.

3. A thin metal conduit for wires constructed with an attaching wall, side and confining walls curved from said attaching wall to provide laterally disposed longitudinal wire spaces; said confining walls being spaced apart to leave an intermediate longitudinal opening for the introduction of wires, and being curved toward each other as well as inwardly, adjacent to said opening, whereby the side walls of the opening recede under upward pressure, but approach each other under downward pressure; the edges of the metal adjacent said opening walls being curved outwardly and backwardly to increase the area of the opening walls and prevent contact of the edges with the wire; and a closing cap having a body portion with flanges rolled backwardly and outwardly therefrom to conform to the enlarged side walls of the opening, and providing on said cap shoulders within the opening walls and stop flanges outside the same.

4. A conduit for wires constructed of thin metal fashioned to provide a back wall, a longitudinally slotted front wall, and curved side walls integral with and spacing the front and back walls apart; the portions of the metal forming the front wall extending from the side walls inwardly toward each other to provide the bottoms of a pair of wire pockets at either side of the longitudinal slot, and the edges of these bottom-forming portions being deflected outwardly to wholly remove them from abrading relation to the wires to be confined; and a closing cap having a body portion entering the conduit beyond and gripped by the shoulders provided by the out-turned edges of the bottom portions of the conduit and providing support for an additional wire intermediate of the side wire pockets; said cap being provided with outwardly and laterally extending flanges conforming to the out-turned edges of the bottom portion to remove said edges from abrading relation to the wires and overlying the out-turned edges of the bottom portions of the conduit to arrest the cap in engaging relation to the walls of the slot.

The foregoing specification signed at Chicago, Illinois, this 13th day of April, 1914.

OSSIAN K. MITCHELL.

In presence of—
ORREN V. STOOKEY,
IRENE PARKER.