(No Model.)

D. H. DORSETT.

CONDUIT FOR ELECTRIC CONDUCTORS.

No. 340,433. Patented Apr. 20, 1886.

Fig. 1.

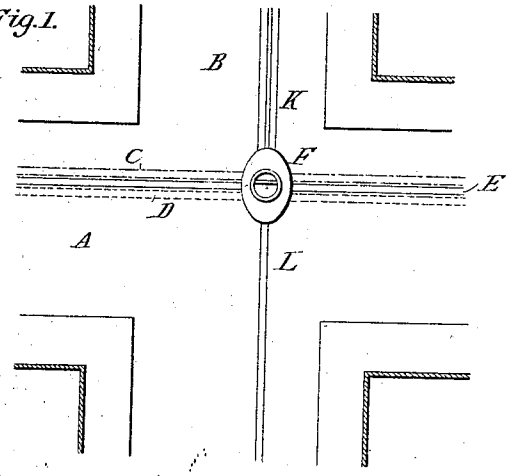


Fig. 2.

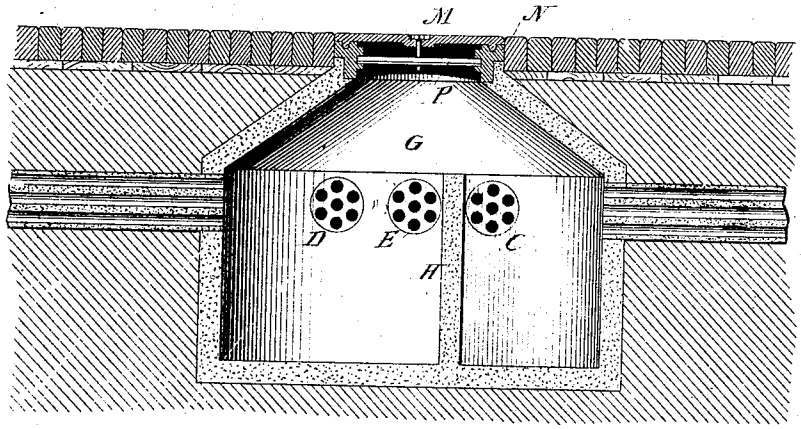
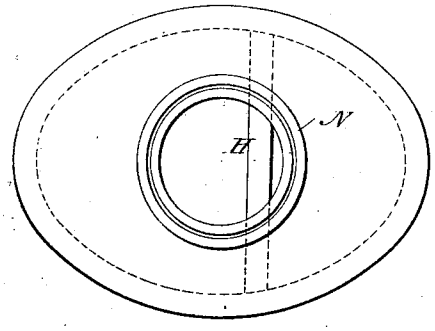


Fig. 3.



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DANIEL H. DORSETT, OF CHICAGO, ILLINOIS.

CONDUIT FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 340,433, dated April 20, 1886.

Application filed October 15, 1885. Serial No. 179,963. (No model.) Patented in England October 30, 1885, No. 13,109.

To all whom it may concern:

Be it known that I, DANIEL H. DORSETT, 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 Conduits for Electric Conductors, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

In an application for patent of even date herewith, Serial No. 179,961, I have shown and described a system of underground conductors in which circuits of several kinds or classes are closely associated in a manner that secures economy in laying, a very effective protection and insulation, and an easy means of access to and control of the whole system. This system comprises three lines of pipe or conduit, and distributing-branches as many in number as the case may require. Of these pipes one contains the trunk wires or lines of electric-telegraph circuits used for communicating with distant points, another circuit for local intercommunication, and the third electric-light circuits or the like. These three lines of pipe (each line may comprise two or more pipes when the number of circuits is great) are laid in close proximity under the streets of a city or town, and at the intersection of the streets are led into what I term "man-holes," in which access may be had to any of the circuits. There are also provided junction-boxes or hand-holes for running branches off from the local or electric-light lines to the houses and buildings along the way.

My present invention, however, is confined to the man-holes; and it consists in a new and useful construction of the same. These man-holes are subterranean boxes or chambers which the pipe-lines enter, and in which the wires are carried from one pipe or section of pipe to another, as may be necessary. They are large enough to permit a man to enter for drawing out or inserting wires or making connections or repairs. They are water-tight, and are made in the general manner described in a former patent to me, No. 322,529.

My improvements are designed to adapt these man-holes to the system which I have briefly described above. To this end I make them oval or oblong in cross-section, placing them with their major axis at right angles to the direction of the three pipe-lines, whereby the pipes are brought into the chamber in more accessible and convenient points and a saving of material effected. In molding the chamber also from the plastic insulating compound which I use, I form one or more partitions within it, using the same material for this purpose. This partition or partitions, when two or more are formed, separates the part of the man-hole containing the electric-light wires from the remaining parts, so that all danger of crosses or short-circuiting is entirely prevented.

The special construction of this device will be described in detail by reference to the accompanying drawings.

Figure 1 is a diagram of a portion of the system, showing the manner in which the man-holes are used. Fig. 2 is a vertical central section of one of the man-holes. Fig. 3 is a plan view of the same.

The purpose for which the man-holes are used is shown in Fig. 1.

In said figure, A B designate two streets of a city or town. Along the streets are run the underground conduits. They are three in number. That designated by C is designed to contain electric-light and power circuits, that by D the circuits for local intercommunication and the like, and that by E, which is preferably in the center, the trunk lines or circuits to distant points and other towns. At the intersection of the streets these conduits all enter a man-hole, F, and, when necessary, branches of any of the circuits, as K L, are run off from the man-hole along the side streets.

The man-hole consists of a deep box or chamber, G, with a contracted opening, and in cross-section oval or oblong, as shown in Fig. 3. The main-line conduits enter the broader sides of this chamber, as shown in Fig. 1.

The interior of the man-hole is divided into compartments by means of one or more partitions, H, which extend up above the level at which the conduits enter the sides. The purpose of the partition or partitions is to isolate the electric-light wires from all the others.

The man-hole is made of a plastic insulating compound discovered by me, and which is composed of the material named in about the following proportions: Fifty gallons of par-

tially-distilled coal-tar, two gallons of paraffine, one hundred and fifty pounds of silicious sand, fifty pounds of pulverized ashes and cinders, two pounds of oxide of manganese, and one of ammonium chloride. These materials are thoroughly mixed and heated. While the mixture is hot and soft it is packed in a sectional mold of any proper kind and the man-hole formed in one piece in this manner. This plan may be departed from, however, as the various parts of the man-hole may be molded independently, and then united together by heating the edges of the different parts or forming the points by additional material in a soft condition.

Various means may be adopted for closing the man-holes. In the present case an iron rim or flange, N, is joined to the insulating material, and an iron plate or cover is secured to this by a bolt, M, that passes through a cross-bar, P, secured to the rim. The cover, however, forms no part of my present invention.

What I claim is—

A man-hole or subterranean chamber for systems of underground electric conductors, having one or more insulating interior partitions, the whole being formed or molded in one piece of a plastic insulating material and oblong or oval in shape, in combination with two or more lines of pipes or conduits entering the compartments through the broader sides of the chamber, as herein set forth.

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