(No Model.)

J. S. DU BOIS.

UNDERGROUND CONDUIT FOR ELECTRIC WIRES.

No. 260,548. Patented July 4, 1882.

Fig. 1.

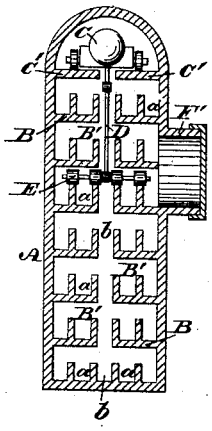


Fig. 2.

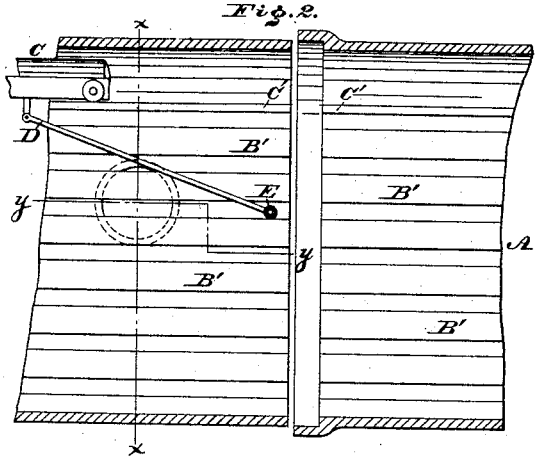


Fig. 3.

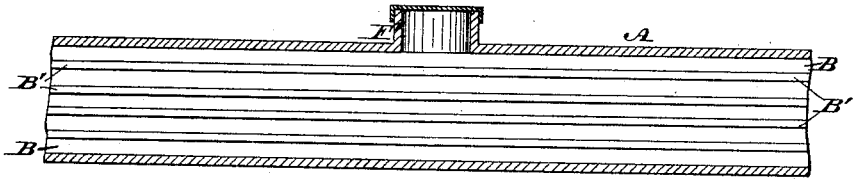


Fig. 4.

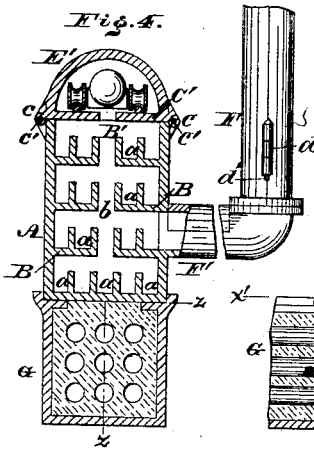


Fig. 5.

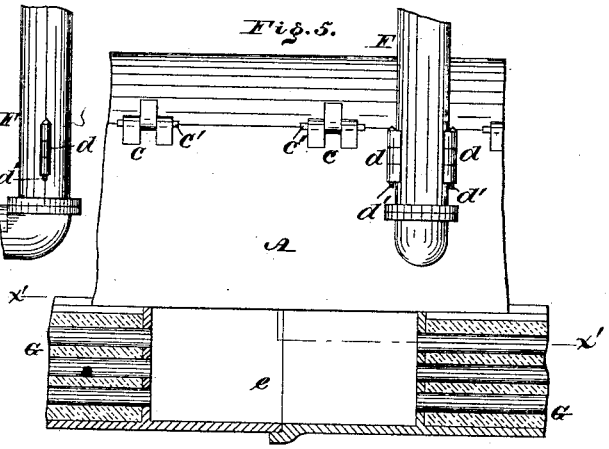
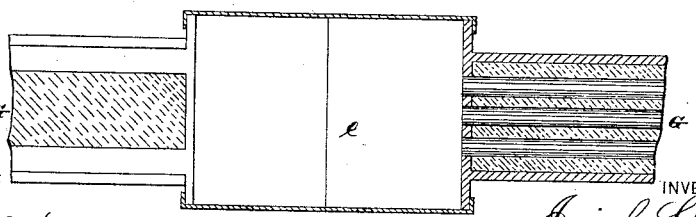


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSIAH S. DU BOIS, OF HADDONFIELD, NEW JERSEY.

UNDERGROUND CONDUIT FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 260,548, dated July 4, 1882.

Application filed February 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH S. DU BOIS, a citizen of the United States, residing at Haddonfield, in the county of Camden, State of New Jersey, have invented a new and useful Improvement in Underground Conduits for Electric Wires, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a transverse vertical section of the conduit embodying my invention in line *x x*, Fig. 2. Fig. 2 is a longitudinal vertical section thereof. Fig. 3 is a horizontal section in line *y y*, Fig. 2. Fig. 4 is a transverse vertical section of another portion of the conduit embodying my invention. Fig. 5 is a partial side elevation and vertical section in line *z z*, Fig. 4. Fig. 6 is a horizontal section in line *x' x'*, Fig. 5.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a conduit for electric wires, having tiers of ledges for holding the wires, and an upper platform for the motor, in combination with a motor running on said platform, a carriage for wires running on one of the lower ledges, and a rod pivotally connecting said motor with said carriage.

It also consists of a conduit having a smooth upper platform for the motor and tiers of lower ledges attached to its sides and provided with vertical partitions for separating the wires.

It also consists of a lower conduit for electric wires, consisting of an open trough provided at the upper edge of each side with an inwardly and an upwardly extending flange, in combination with the upper conduit, constructed to fit between the inwardly and upwardly extending flanges.

Referring to the drawings, A represents a conduit formed of a tube or main of terra-cotta or other suitable material, to the inner face of which is secured a series of ledges, B, arranged in tiers, and provided with vertical partitions B', which thus form pockets *a a* in each ledge, the ledges of one side being separated from those of the other side by a vertical division or space, *b*.

C represents a motor which is employed for drawing the wires through the conduit, said motor being operated by steam, electricity, or other force, and placed on a way or platform, C', formed with or secured to the under face of the conductor at the top thereof.

Depending from the motor is a connecting-rod, D, which is pivoted to the motor, and has its lower end jointed to a carriage, E, which is rested on either of the ledges B and adapted to be propelled by the motor C, it being seen that the rod D is sufficiently long to reach to the bottom of the conveyer, and, being pivoted to the motor, it may be raised, whereby the carriage E is adapted to be placed on either ledge, and thus convey the wires and lay them in the proper pockets.

It will also be seen that the pockets permit the wires to be laid in series independently of each other, whereby the series do not interfere with each other and either series is accessible without disturbing the others.

E' represents a cap or cover which is hinged to the body of the conduit, the hinges *c* being on opposite sides of the cap, so that the cap has two hinges. When it is desired to reach the interior of the conduit, either for the introduction or removal of the motor and appurtenances or for access to the ledges or wires or other purposes, either of the pintles *c'* of the hinges is withdrawn, whereby the cap may be swung up and over, thus uncovering the conductor. This feature of the double hinge is serviceable in cases where the conduit is laid near the curb or gas, water, or sewer pipes, or, according to circumstances of the street, where the cap is required so be swung either to the right or left in order to be opened and permit access to the conductor.

Communicating with the body of the conduit are pipes F, through which wires are led from the conduit to the surface for lighting streets, houses, &c., said pipes being formed in sections doubly hinged, as at *d*, whereby either section may be swung to the right or left, according to the nature of the sidewalk, street, &c. In some cases a section must be opened to the left, in others to the right, in order to permit access to the interior of the pipe. For this purpose the proper pintle, *d'*, is removed and the section is swung back on the other pintle.

When the wires are located in the conduit A

and the cap is closed the double hinges of the cap E′ serve to hold the same firmly in position on the body of the conduit without leaving a joint or seam at the top of the cap. The double hinges of the sectional pipes F serve to hold said sections firmly together and prevent accidental opening thereof on either side.

The pipes F may be connected to branches F′, as in Fig. 1, or to the couplings F′, as in Fig. 4. In the latter case the tops of the couplings may have removable or hinged sections for access to the side of the conduit.

Below the conduit A is a conduit, G, formed of perforated blocks of terra-cotta or other suitable material, in the openings of which are passed wires for electric lights, which, being of more dangerous nature, are thus separated from the telegraph and telephone wires in the conduit A, the latter being placed on the conduit G and operating independently thereof or without communication one with the other. Said lower conduit is in the form of an open trough, provided at the upper edge of each side with an inwardly and an upwardly extending flange. The upper conduit fits in between the flanges and is supported by the inwardly-extending ones.

The space *e*, between the conduits, is employed for making connections with the main line to the sidewalks, streets, houses, &c.

The herein-described double-hinged cap and sections, not being the subject of the present case, may be embodied in a subsequent application.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A conduit for electric wires, having tiers of ledges for holding the wires, and an upper platform for the motor, in combination with a motor running on said platform, a carriage for wires running on one of the lower ledges, and a rod, D, pivotally connecting said motor with said carriage, substantially as set forth.

2. A conduit having smooth upper platform, C′, for the motor and tiers of lower ledges attached to its sides, and provided with vertical partitions for separating the wires, substantially as set forth.

3. The lower conduit, G, for electric wires, consisting of an open trough, provided at the upper edge of each side with an inwardly and an upwardly extending flange, in combination with the upper conduit, A, constructed to fit between the inwardly and upwardly extending flanges, substantially as set forth.

4. The underground conduit for electric wires, having tiers of ledges and a motor and carriage for the wires, said motor and carriage being connected by a hinged or pivoted rod, substantially as and for the purpose set forth.

JOSIAH S. DU BOIS.

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