(No Model.)

H. T. CLAY.

STREET CONDUIT FOR ELECTRIC AND CABLE RAILWAYS.

No. 338,485. Patented Mar. 23, 1886.

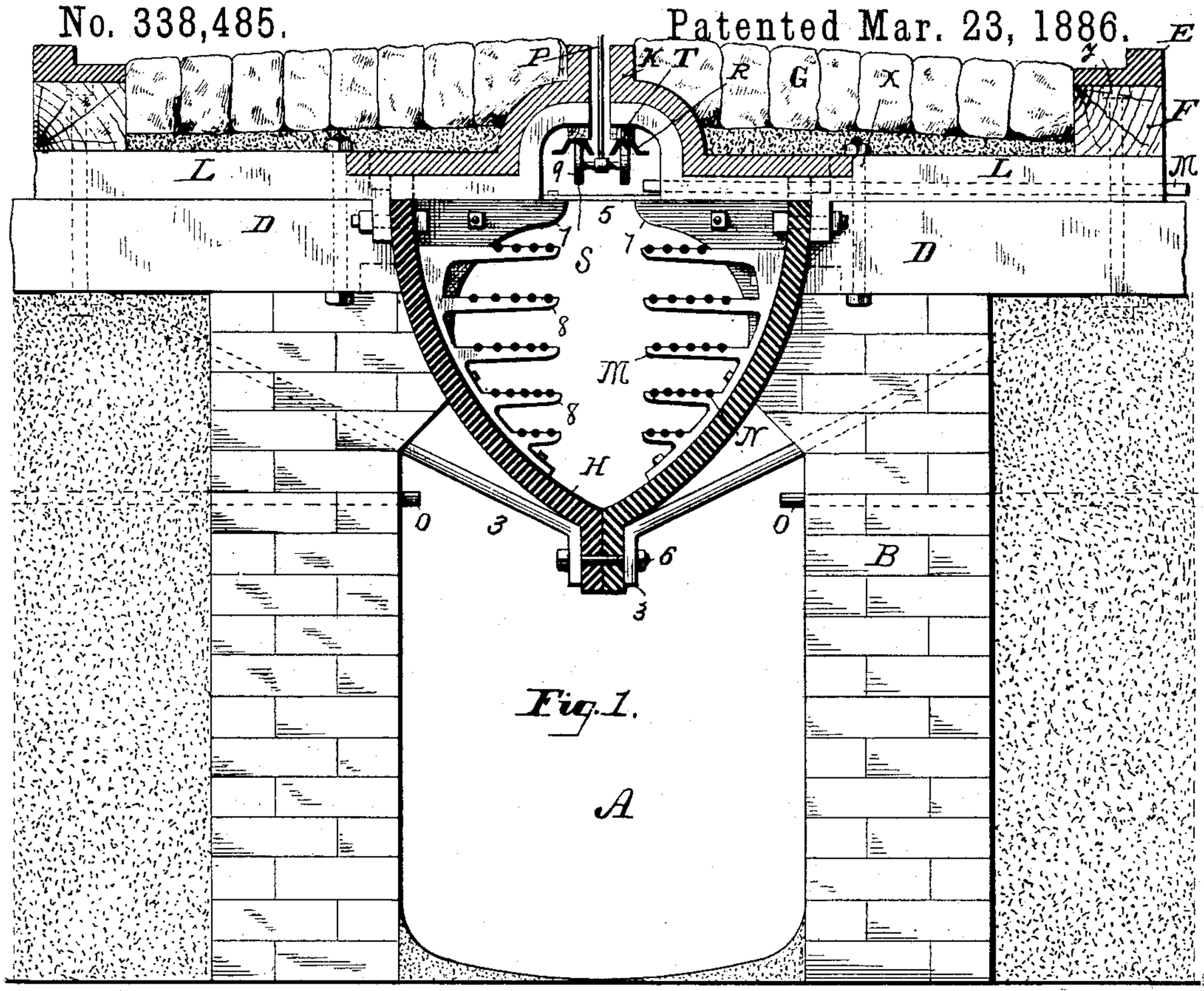


Fig. 1.

Fig. 2.

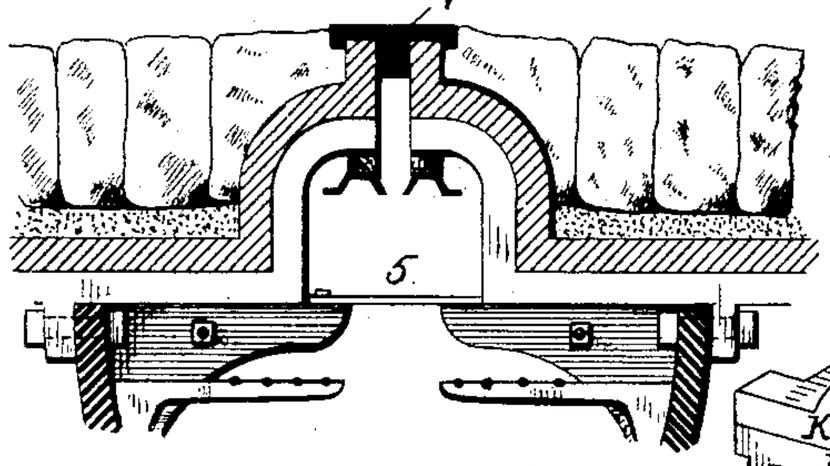
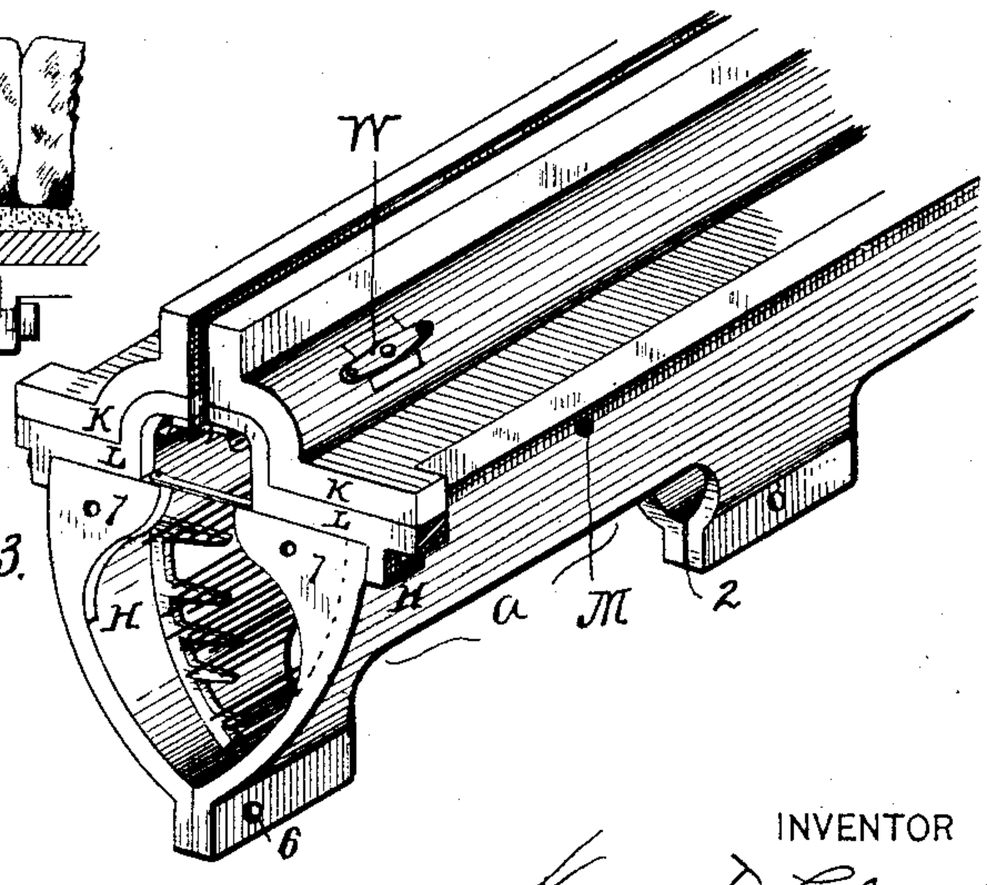


Fig. 3.



WITNESSES:

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HENRY T. CLAY, OF PHILADELPHIA, PENNSYLVANIA.

STREET-CONDUIT FOR ELECTRIC AND CABLE RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 338,485, dated March 23, 1886.

Application filed June 25, 1885. Serial No. 169,748. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. CLAY, a citizen of the United States, residing in the city of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Street-Conduits for Electric and Cable Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to the construction of undergound conduits for cable and electric railways and for electric-light and telegraph circuits; and it consists in preparing a suitable foundation inclosing a sewer-pipe open at its top to receive the lower side of a metal conduit-frame, within which means are provided for holding electric wires, mechanism for operating an electric railway, or a cable wire, as may be desired, and in the details of the structure, as hereinafter more fully described.

In the drawings, Figure 1 represents a vertical section of the entire structure, showing the location of the several parts with relation to each other; Fig. 2, a like vertical section designed to show the construction of the conduit-frame, and Fig. 3 a side and end elevation of the metal conduit-frame.

The ground being properly excavated to the required depth, a sewer, A, is constructed within a foundation of masonry, B, said sewer being preferably constructed of the shape shown in the drawings, in order that the superincumbent masonry shall form a suitable and close-fitting supporting-bed for the metallic conduit-frame H. This frame is constructed of two lower sections, H H, bolted together at 6, where their flanged ends join at the base, and two upper sections, K K, of the form shown, and separated from each other and resting upon a frame, L, shaped to conform thereto, interposed between their under sides and the lower sections, H H, the said parts being securely bolted together, and again bolted to a series of ties, D, by bolts X, said lower sections, H H, being again secured to the said ties D and to the rail-ties F by a series of bolt-rods, 3 and Y, said rail ties or sills F being placed at suitable distances apart in the road-bed to receive the rails E; and the space between said rail ties or sills F and the upper flanged ends of said conduit-sections K K is filled up with the usual paving-blocks, G.

In Fig. 3 is shown the complete metal conduit-frame consisting of the two sections H H, the two sections K K, and the interposed frame L, likewise in two parts or sections. It is obvious that such conduit is constructed of suitable lengths, each of which lower sections, H H, of each length and at each end of each of such lengths has inwardly-projecting flanges 7 7, so that the lengths of conduit can be securely bolted together, such projecting flanges also serving as a support to the top covering. Each length of sections H H is cut away at *a*, so as to leave a clear open space in its under side, so as to serve as a draining-exit therefrom to the sewer A, for any water or other foreign substance that may find its way into the conduit. Said conduit in each length is further provided with a man-hole, indicated at W, to serve as a ready means of cleaning and repairing it and its inclosed wires, cables, or other internal parts. A set of braces (shown at 5) will more effectually hold the sections H H in position; but these need not and should not be used where such conduit is used for cable-railway purposes. Said sections H H are also provided with inwardly-projecting lateral bars 8 8, perforated by insulated holes or openings N N, through which electric wires may be strung for telegraphic, telephonic, or lighting purposes, and such use may be in conjunction with, but independent of, the use of said conduit for electric-railway or cable-railway purposes.

At M and O are shown tubes for holding electric wires, to convey the current to suitable points in the street or highway, the former taking the current from the rigid tube-conductor R used for electric-railway purposes and the latter taking the current from any one or more of the wires held in the perforations N of the bars 8. It will be seen that the sections K K are so placed upon the interposed foundation-plate L that the upper vertical sides do not come against each other, but leave an open space between them to permit the longitudinal passage in such space of a connecting-bar from a moving car. In the drawings, Fig. 1, such bar P is the connecting-bar between the electric-motor carried in

and by a car and the revolving wheel-brushes 9, whose peripheries make an electrical contact connection with a rigid metallic conductor, R, used for electric railway purposes, such conductor being secured to the metal conduit sections K K, through an interposed insulated block, T.

The conduit, when not used for cable or electric railway purposes, but only for the other purposes mentioned, may be closed at the top by the T-shaped plate V, Fig. 2.

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

1. A street-conduit consisting of sections H H, sections K K, interposed plate L, said parts being constructed, arranged, and combined substantially as described.

2. The combination constituting an electric or cable railway conduit, consisting of sections H H and sections K K, with suitable braces connecting the same together and with rail-sills F, said parts being combined, constructed, and arranged substantially as set forth.

3. The conduit described, consisting of sections H H, sections K K, plate L, ties D, masonry foundation B, and pipes M and O, in combination with rail-sills and rails F and E, the said parts being constructed substantially as described, and arranged upon a suitable road-bed, as set forth.

4. The combination, with sections K K, of the sections H H, open at *a*, and having projecting bars 8 provided with insulated perforations N, substantially as set forth.

5. In a street-conduit for electric railway purposes, the combination of the sections H H, sections K K, interposed plate L, insulated blocks T, and rigid metallic conductor R.

6. A street-conduit for the purposes described, consisting of sections H H, provided in each of its lengths with projecting flanges 7 and openings at *a*, plate L, and sections K K, constructed, combined, and arranged substantially as set forth.

In testimony whereof I have hereunto affixed my signature this 24th day of June, A. D. 1885.

HENRY T. CLAY.

Witnesses:
E. L. MINTZER, Jr.,
SAML. G. DIEHL.