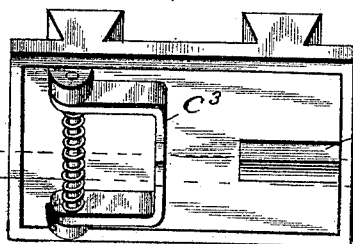
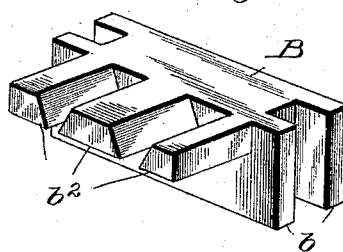
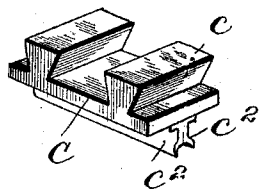
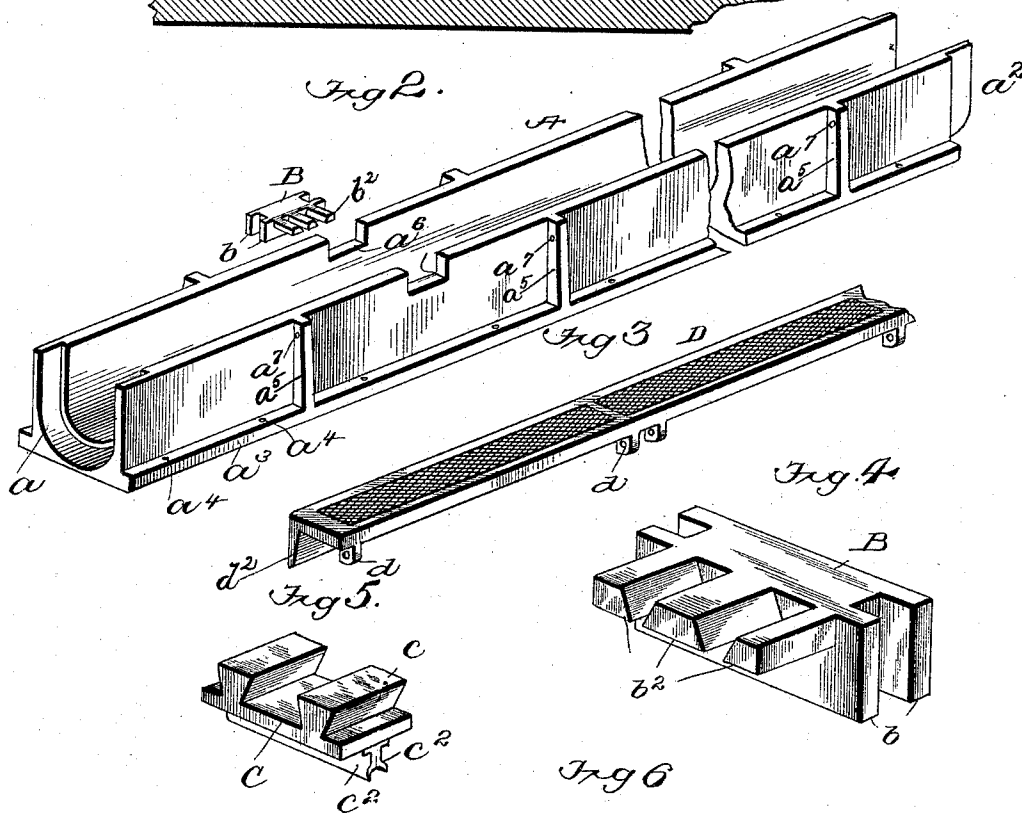
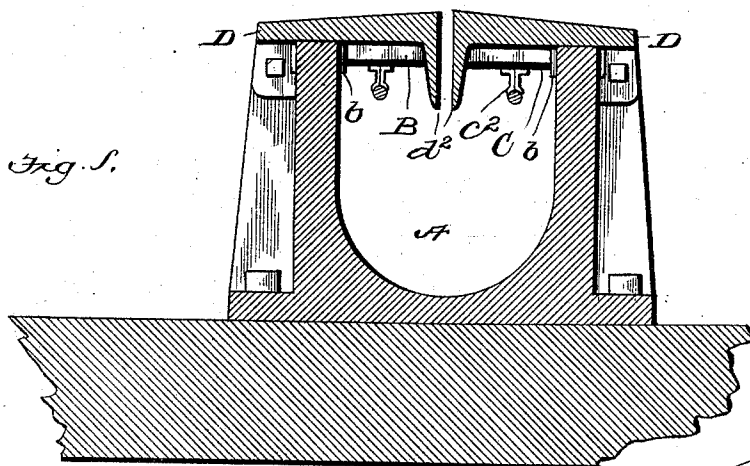


(No Model.)

R. B. WILSON.  
ELECTRIC RAILWAY CONDUIT.

No. 526,767.

Patented Oct. 2, 1894.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ROBERT B. WILSON, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO  
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## ELECTRIC-RAILWAY CONDUIT.

SPECIFICATION forming part of Letters Patent No. 526,767, dated October 2, 1894.

Application filed January 2, 1894. Serial No. 495,419. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT B. WILSON, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Electric-Railway Conduits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to conduits for electric conductors, particularly, to conduits for conductors used in connection with electric railways.

The object of the invention is to produce a conduit of this kind which may be applied to railways already constructed without displacement of rails or cross-ties. The object is, furthermore, to produce a conduit of the kind, in which the introduction and removal of a conductor may be accomplished with great quickness and facility. The object is, finally, to produce a conduit of the kind, in which conductors may be held in place by simple and inexpensive means, readily applied.

With these objects in view, the invention consists of a conduit having a projecting or flanged base, upon which it rests and by which it is secured to the ties of a railway, the conduit being made up of sections, each section having an incut or a socket at one end and a reduced portion at the other, the socket of each section being entered by the reduced portion of another, and the reduced portion of one section fitting the socket of the next.

Furthermore, the invention consists of a conduit, made up of sections incut at one end and reduced at the other, and provided with a projecting or flanged base and with upright ribs.

Furthermore, the invention consists of a conduit having notches in the upper edges of its walls, combined with bracket and hanger-blocks for sustaining the conductors, the bracket-blocks being set in the notches and holding therein, and the hanger-blocks taking into the bracket-blocks.

Furthermore, the invention consists of a conduit combined with bracket and hanger-

blocks and provided with cover-plates having downward-projecting flanges serving to retain the blocks in place; and, finally, the invention consists in various novel details of construction, arrangement, and operation.

In the accompanying drawings, forming part of this specification, and in which like letters of reference indicate corresponding parts: Figure 1— is a view in vertical cross-section, showing an approximately U-shaped conduit with flanged base by which it is secured in position, and upright ribs; also, the bracket and hanger blocks in position, with insulation on the hanger-block, and the cover-plates with depending flanges holding them fast. Fig. 2— is a view in perspective, showing a section of the conduit, having an incut or socket at one end, a reduced portion at the other, and the flanges and ribs; and, also, notches in the upper edges of the walls, and a bracket-block ready to be set into a notch. Fig. 3— is a view in perspective, showing one of the cover-plates. Fig. 4— is a view in perspective, showing a bracket-block. Fig. 5— is a view in perspective, showing a hanger-block; and Fig. 6— is a view in perspective of a modified form of hanger-block, showing the under surface of a block provided with a pivoted frame constituting a switch.

In the drawings, A represents one of the conduit-sections, which is of a height corresponding to the thickness of paving covering the cross-ties of a road, or to the distance between the upper surface of the rails and that of the cross-ties, and has, at one end, an incut portion or socket,  $a$ , and, at the other end, a reduced portion  $a^2$ . When sections are placed together, the socket will be fitted upon the reduced portion of an adjacent section, and the reduced portion of the present section will enter the socket of another. Each section, A, is approximately U-shaped in cross-section and provided with a base-flange  $a^3$ , designed to rest upon the cross-ties of a railroad and be held there in any suitable manner. Thus, each flange may be perforated as at  $a^4$ , for the reception of spikes or the like. The flange may be continuous or may be cut away between the perforations. Each section is, furthermore, provided with upright strengthening ribs  $a^5$ , or lugs for perforations above. It

is, also, provided, on each side, at its upper edges, with one or more notches  $a^6$  to receive the bracket-blocks, B. These blocks have flanges,  $b$ ,  $b$ , at each end and dove-tailed fingers  $b^2$  projecting at right-angles from one face. A block is set into a notch with the flanges projecting at each end beyond the notches and on the outer and inner side of the conduit-wall, whereby the block is held, and with the fingers projecting inward into the conduit and with its upper face flush or even with the upper edge of the conduit-wall.

C designates a hanger-block which is provided on its upper face with dove-tail fingers  $c$ , adapted to fit between the fingers,  $b^2$ , of the bracket-block, B, and be retained thereby, and has, on its lower face, jaws,  $c^2$ , to hold an electrical conductor.

The hanger-blocks C are entirely covered with some insulating substance, such as india rubber, so that, passage of a current of electricity from the conductor through hanger and bracket-blocks to the conduit-sections will be prevented.

At the top of the conduit are cover-plates D which, when in position, leave a narrow slot along the middle of the conduit for a current-collector from a car. These plates have perforated lugs  $d$  and are attached to the conduit-sections by screws or bolts passing through the lugs and through perforations  $a^7$  in the ribs  $a^5$  on the sides of the conduit-sections. The ribs  $a^5$  on the conduit-sections and the lugs  $d$  on the plates, are arranged at regular intervals, and at such distances apart that, when one of the lugs is brought into contact with one of the ribs, the remaining lugs and ribs will be brought into proper position to be connected. Instead of ribs, there may be only lugs at the upper outside part of the wall, these lugs being properly perforated. The inner faces of the lugs  $d$  of the plates D are straight, and are designed to fit closely against the outer faces of the conduit-sections, so that raising of the plates without removing the bolts by which the plates are attached to the ribs is rendered impossible.

The plates D are provided along their inner edges with flanges  $d^2$ , which serve both to form a passage-way for trolleys, and to retain the hanger-block C in place, in engagement with the bracket-block B, the parts being of such construction and size, that, when in place, the plates being over the blocks B, these blocks will be held directly by them, while the

flanges of the plates will hold the blocks C in the blocks B.

With a conduit constructed in accordance with my invention, conductors therein will be retained in such position that any danger of short-circuiting or grounding of the current will be avoided. Water or other matter, such as earth, falling between the plates, will be carried by the flanges to a point below the conductors and be deposited in the bottom of the conduit, from which it will be removed by any suitable means.

The invention thus described, is applicable, to the usual and common forms of electrical railway systems, but, to employ it in connection with a novel system for which I have made application for Letters Patent of even date herewith, I use a modified form of hanger-block at intervals with the block C, namely at the end of each section. Such a block appears in Fig. 6. Here, on the lower face of a portion of the hanger-block is pivoted a frame  $c^3$ , constituting a switch, which serves as a means of connecting the electrical conductor carried by the hanger-block with the other operative parts in the novel electrical railway-system described in said other application.

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

1. A sectional conduit having a projecting or flanged base, continuous and integral therewith each section having an incut or a socket at one end and a reduced portion at the other, substantially as and for the purpose described.

2. A conduit-section incut at one end and reduced at the other, and provided with a projecting or flanged base and with upright ribs, substantially as and for the purpose set forth.

3. The combination with a conduit, notched in the upper edge of its wall, of a bracket and a hanger-block, substantially as described.

4. The combination with a notched conduit and a bracket and hanger-block, of a cover-plate having a depending flange, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT B. WILSON.

Witnesses:

DAVID H. MEAD,  
E. H. PARRY.