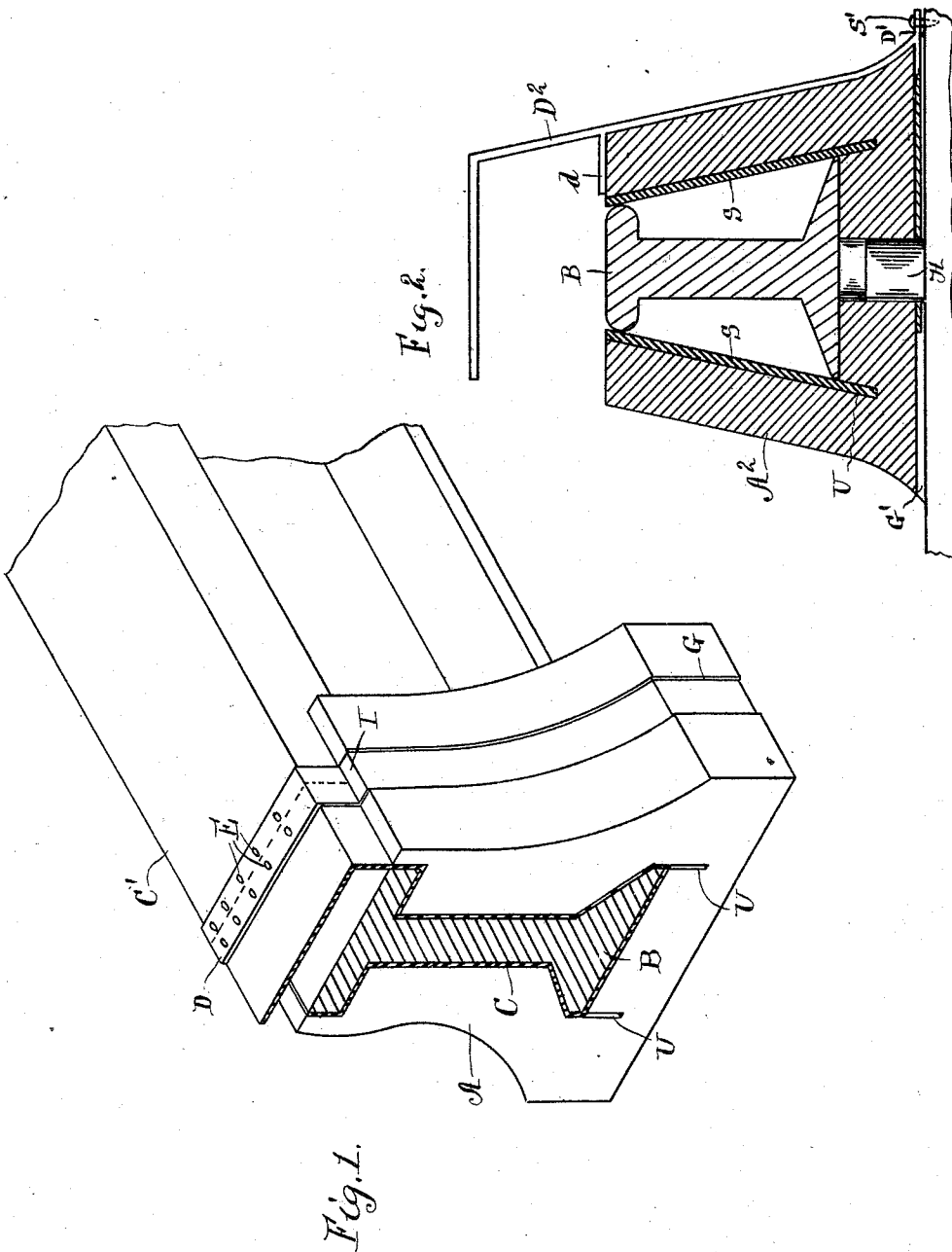


J. N. TOMLINSON.
THIRD RAIL FOR ELECTRIC RAILWAYS.
APPLICATION FILED DEC. 15, 1909.

995,204.

Patented June 13, 1911.

2 SHEETS—SHEET 1.



WITNESSES

W. H. Williamson
S. M. Gallagher

INVENTOR

Joseph N. Tomlinson

BY

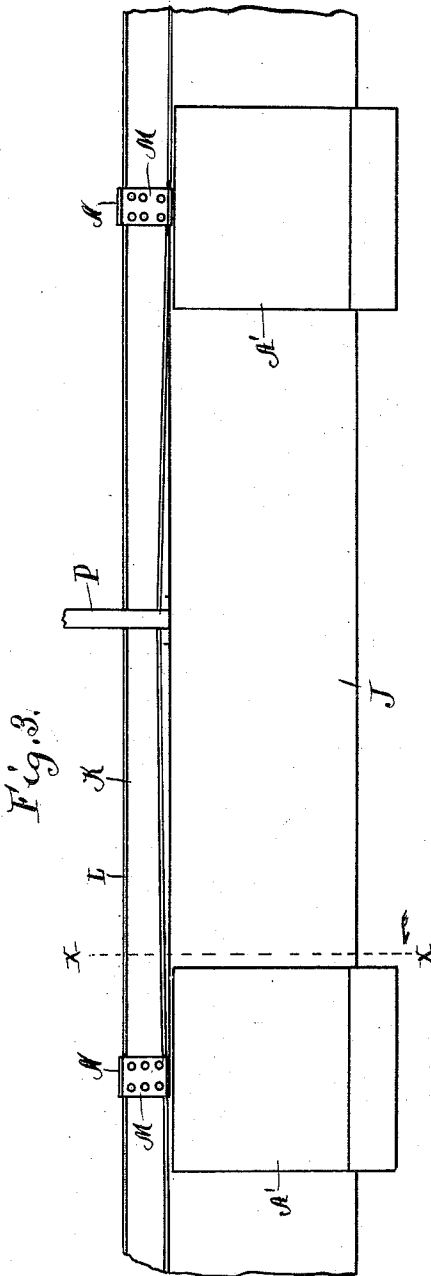
W. H. Williamson ATTORNEY

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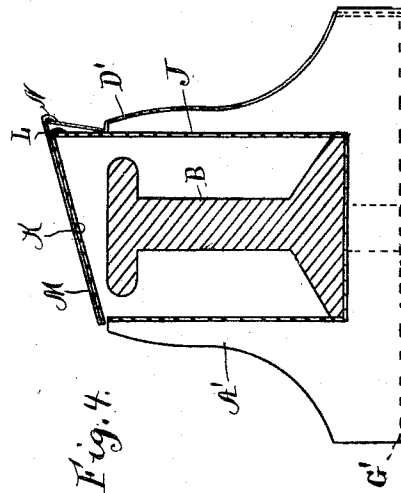
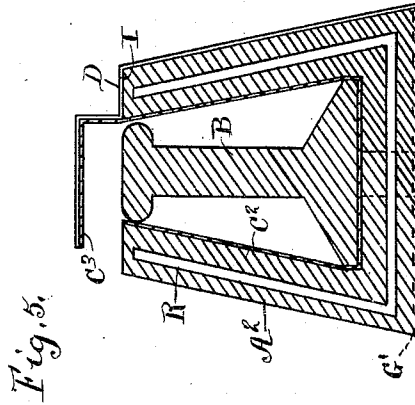
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UNITED STATES PATENT OFFICE.

JOSEPH N. TOMLINSON, OF VINELAND, NEW JERSEY.

THIRD RAIL FOR ELECTRIC RAILWAYS.

995,204.

Specification of Letters Patent. Patented June 13, 1911.

Application filed December 15, 1909. Serial No. 533,177.

To all whom it may concern:

Be it known that I, JOSEPH N. TOMLINSON, a citizen of the United States, residing at Vineland, in the county of Cumberland and State of New Jersey, have invented a certain new and useful Improvement in Third Rails for Electric Railways, of which the following is a specification.

My invention relates to a new and useful improvement in third rails for electric railways, and has for its object to provide an insulating covering and supporting blocks for the rails, of such construction that the rail will be supported and protected from the loss of current and from the possibility of injuring persons or animals crossing the same.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view of one of the blocks and a portion of the rail and covering. Fig. 2, a cross section of one form of supporting block and hanger, to which the roof strips are attached. Fig. 3, a side view of a slightly modified form of my invention. Fig. 4, a section at the line $x-x$ of Fig. 3, and Fig. 5, a cross section of still another form of my improved supporting block.

In carrying out my invention as embodied in Fig. 1, A represents one of the supporting blocks, which is made of any suitable material, having an opening therethrough, of the general shape of the rail B in cross section, in which the rails are placed.

C represents the covering for the rail, which is of any suitable non-conducting material, and entirely surrounds the rail, all except the upper surface thereof, and this covering extends upward at one side and is bent at right angles to form the roof strips C', which is supported by the bracket D, and this bracket is preferably riveted or screwed to the meeting ends of the roof strips, as indicated at E. The meeting ends

of the covering lie within the supporting blocks.

The supporting block A has formed therein a groove or depression G, in which the bracket D is placed, said bracket extending under the supporting block, and is secured thereto by the plug H projecting upward from the tie into the block or other suitable means.

By the formation of the supporting block as here shown, so that its sides extend upward to substantially the top of the rail, not only is the covering C held in place, but the rail is fully supported and a shoulder is formed for the bracket D, as indicated at I, which gives the bracket at this point a desirable support.

In Fig. 2, the supporting block A² and the bracket D² are modified, the latter having the extension d adapted to set upon the upper edge of the block, and this block is especially adapted for supporting and holding in place the side strips S, and as the groove G' extends across the bottom of the block from side to side, the bracket D² may be placed in position either to one side or the other of the block and held by the plug H which projects up from the tie.

In Figs. 3 and 4, I have shown a form of supporting block A' to be used as shown, the rail being placed inside of an insulated box or trough J, the latter having a cover K which is hinged at L to the box, said cover being secured to the strips M, which are in turn hinged at N to the brackets D'. This construction provides for the complete inclosing of the rail B when a train is not passing, and is especially adapted for use at points where vehicles or persons cross the track, or in stations. When this construction is used the bar P which carries the ordinary shoe for contact with the upper surface of the rail will lift the cover as it passes, the covering being sufficiently flexible to remain closed in front of the bar and closed when the bar passes, or said cover may be operated automatically.

In Fig. 5, as in Fig. 2, I have shown a construction of supporting block which is very desirable, the block A² having its sides inclined and having an undercut opening formed therein for the reception of the rail B and its covering C², the bracket D being secured to the block in the same manner as

that described in connection with Fig. 1, and the bracket likewise being secured to the roof strips C³. If found necessary core rods R may be placed in the blocks when the latter are being molded.

Of course I do not wish to be limited to the exact details of construction here shown, as these may be varied within the limits of the appended claims without departing from the spirit of my invention, as for instance the bracket may have a foot *d'* through which a spike or nail S' is driven to further hold the bracket in position.

Slots U may be formed in the blocks to allow the covering strips to extend below the bottom of the rail thus preventing anything coming in contact with the rail between the blocks.

Having thus fully described my invention, what I claim as new and useful, is—

1. In combination in a third rail system for electric railways, supporting blocks having openings therethrough for the insertion of the rails, brackets fitted to the blocks, said brackets being so formed as to rest upon the upper edge of one side of each block, an insulating cover partly surrounding the rail, and roof strips secured to the brackets, as specified.

2. In combination in a third rail system for electric railways, supporting blocks formed of insulating material and having an opening therethrough for the reception of the rails and a groove therein, a bracket set in said groove and so formed as to utilize the upper edge of one side of the block as

a support, insulating material adapted to fit within the opening in the blocks and partially inclose the rail, and roof strips secured to the brackets, as specified.

3. In combination in a third rail system for electric railways, supporting blocks formed of insulating material for the reception of the third rails, a trough surrounding three sides of the rails, roof strips hinged to one side of the trough, brackets secured to the blocks, and strips secured to the roof strips and hinged to the brackets, as specified.

4. In combination in a third rail system for electric railways, supporting blocks formed of insulating material having an opening therethrough for the reception of the rails and having slots extending downward from the bottom of the opening, insulating material adapted to fit within the opening in the blocks and extend below the bottom edge of the rail, partially inclosing said rail, a bracket fitted to each block and formed to utilize the upper edge of one side of the block as a support, a portion thereof extending lengthwise of the block some distance above the top thereof, and roof strips secured to said brackets for the purpose set forth.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOSEPH N. TOMLINSON.

Witnesses:

HENRY HOLLINSHED, Jr.,
FRANK H. WALLS.