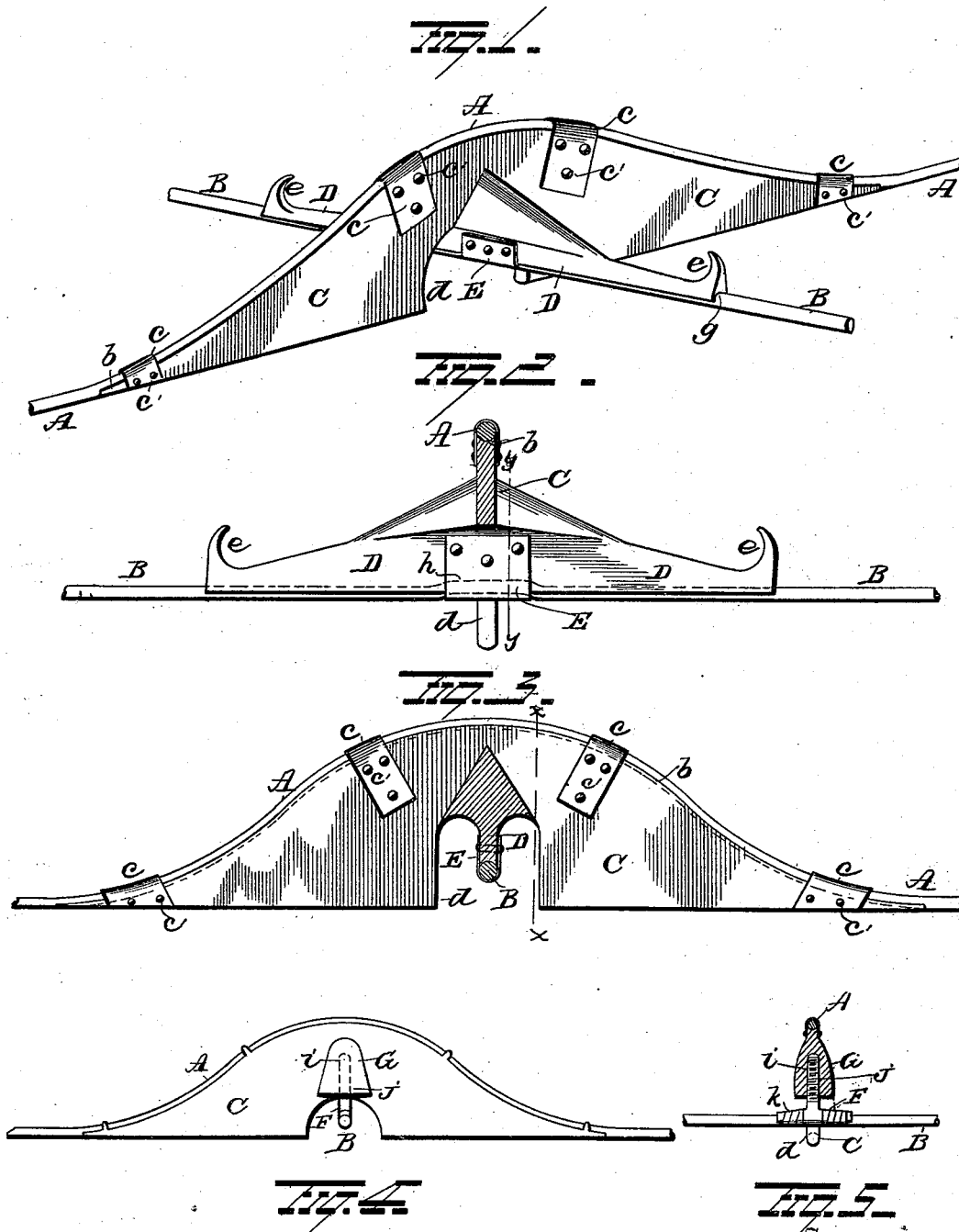


(No Model.)

H. A. SEYMOUR.
CROSSING FOR ELECTRIC CONDUCTORS.

No. 423,495.

Patented Mar. 18, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY A. SEYMOUR, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO THE SHORT ELECTRIC RAILWAY COMPANY, OF CLEVELAND, OHIO.

CROSSING FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 423,495, dated March 18, 1890.

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To all whom it may concern:

Be it known that I, HENRY A. SEYMOUR, a citizen of Washington, in the District of Columbia, have invented certain new and useful Improvements in Crossings for Electric Conductors; and I do hereby declare the following to be 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.

My invention relates to an improvement in crossings for electric conductors, the object being to provide a crossing of such construction that the separate trolley-lines shall be firmly secured in place and be insulated one from the other and the trolley allowed to pass over the crossing without being diverted from its line of travel.

With these objects in view the invention consists in certain novel features of construction and combinations of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of my improvement. Fig. 2 is a view on the line $x x$ of Fig. 1. Fig. 3 is a view on the line $y y$ of Fig. 2. Fig. 4 is a view of a modification. Fig. 5 is a view on the line $x x$ of Fig. 4.

A and B represent the trolley-wires of two electric railroads which cross each other at any desired angle. The lower wire A is secured to the upper curved edge of a plate C. This plate is made of earthenware, wood, metal, or other suitable material having a straight lower edge and a curved top edge, the latter being made with a groove b for the reception of the line-conductor A, which conductor is retained to its seat in the groove by means of straps c , of any suitable material, secured at their respective ends to the opposing faces of the plate A by means of rivets c' , or in any other suitable manner. By this construction it will be seen that that portion of the plate C along which the trolley passes is in the same horizontal plane with the conductor, and said conductor remains continuous, thus avoiding the necessity of the trolley moving out of its original horizontal plane. At its center the plate C is made with a recess d , which extends from the lower edge of the plate to a point about

two-thirds way through the vertical axis thereof, as shown in Fig. 1. A plate D, of earthenware, wood, metal, or other suitable material, is located in the recess d and secured at its center to the plate C, its ends projecting at right angles from the opposing faces of the plate C, the lower edge of the plate D being in a plane above the plane of the lower edge of plate C. Should the plates C D be made of earthenware or other non-conducting material, they may be molded together or integral with each other; but when metal is employed for making these plates they must of course be made separate and insulated from each other in any suitable manner. At the point where the plate D joins the plate C the former is made thicker than at its lower or free edge, in order to secure a strong and rigid connection of these plates. The ends of the plate D are upwardly turned to produce toes e , so that if the two plates C D should become detached the plate C will be caught by one of the toes e , and the conductors A B thus prevented from becoming crossed. The lower straight edge of the plate D is provided with a groove g , which extends from end to end thereof, and at its center the plate is made with a recess h . The line-conductor B is inserted in the groove g , and at the center of the straight edge of said plate the conductor is bent into and made to neatly fill the recess h . A flat plate E, of metal or other suitable material, is secured at its ends to the opposing faces of plate D, the middle portion of plate E passing around the conductor where the latter enters the recess g , thus securing the conductor B to the plate D, and at the same time making the lower edge of the plate D mark a straight unbroken line.

In Figs. 4 and 5 I have illustrated a modified form of my invention, in which form a cross-arm F is substituted for the plate D. The plate C is provided at its center with enlargements on its opposing faces, which together produce a boss G. This boss is made with a screw-threaded socket i for the reception of a similarly-threaded shank j , projecting at right angles from the center of the cross-arm F, as shown in Fig. 5. The shank j having been screwed into the socket i , the arm F will project at right angles to the faces

of the plate C, and its lower edge will be in a horizontal plane above that of the lower edge of plate C. The line-wire A will be secured to the plate C, as above described, and the
5 line-wire B may be secured to the cross-arm F by means of metallic ribbon k, or in any other suitable manner.

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

1. In an electric-railroad system, the combination, with two or more conductors, of insulated plates, each plate having a conductor secured thereto, said plates being supported
15 at an angle to each other and in different horizontal planes, substantially as set forth.

2. In an electric-railroad system, the combination, with two conductors, of two insulated plates, one of said plates having a
20 curved upper edge, to which a conductor is secured, and a straight lower edge, along which the trolley is adapted to pass, and the other plate having a straight lower edge, to which another conductor is secured, substantially
25 tially set forth.

3. In an electric-railroad system, the combination, with two continuous conductors which cross, of an insulated plate secured to each conductor, each plate having a straight

lower edge, and one of said plates having a
30 thickened upper edge where it joins the other plate, substantially as set forth.

4. In an electric-railroad system, the combination, with two continuous conductors which cross, of an insulated plate secured to
35 each conductor, one plate being carried by the other, and each having a straight lower edge, and toes at the ends of one plate, substantially as and for the purpose set forth.

5. A supporting device for electric conduct-
40 ors at crossings, consisting of an elongated plate or support having straight or practically straight lower faces for the engagement of the trolley and a raised upper portion, to the
45 upper edge of which a conductor is secured, and an insulated support secured within an opening formed between said straight lower faces, the latter support being located and supporting a conductor above the plane of
50 said straight lower faces, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY A. SEYMOUR.

Witnesses:

R. S. FERGUSON,
S. G. NOTTINGHAM.