

No. 654,574.

Patented July 24, 1900.

V. KOCH.

TROLLEY TRACK FOR ELECTRIC RAILWAYS.

(Application filed Feb. 24, 1900.)

(No Model.)

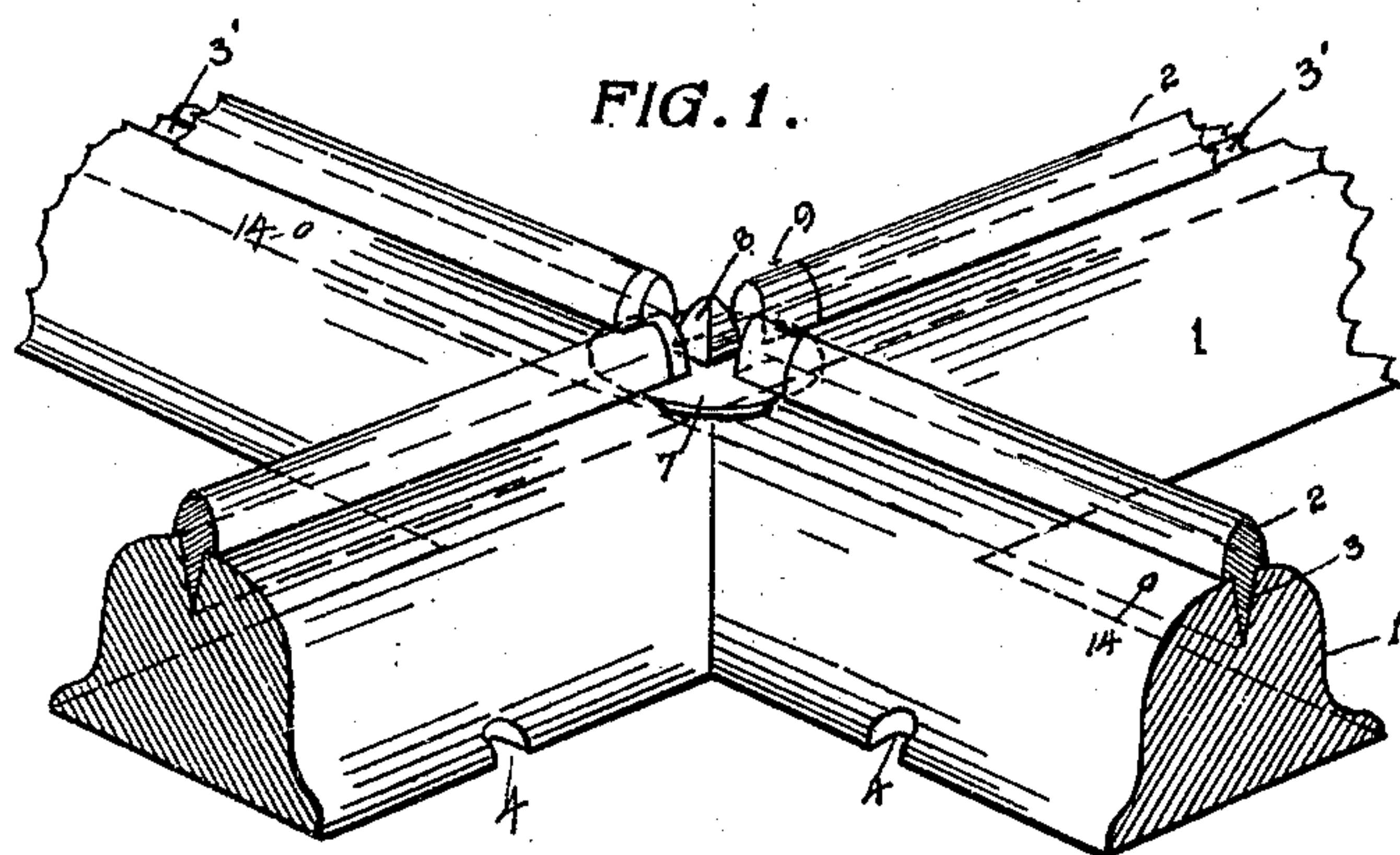


FIG. 3.

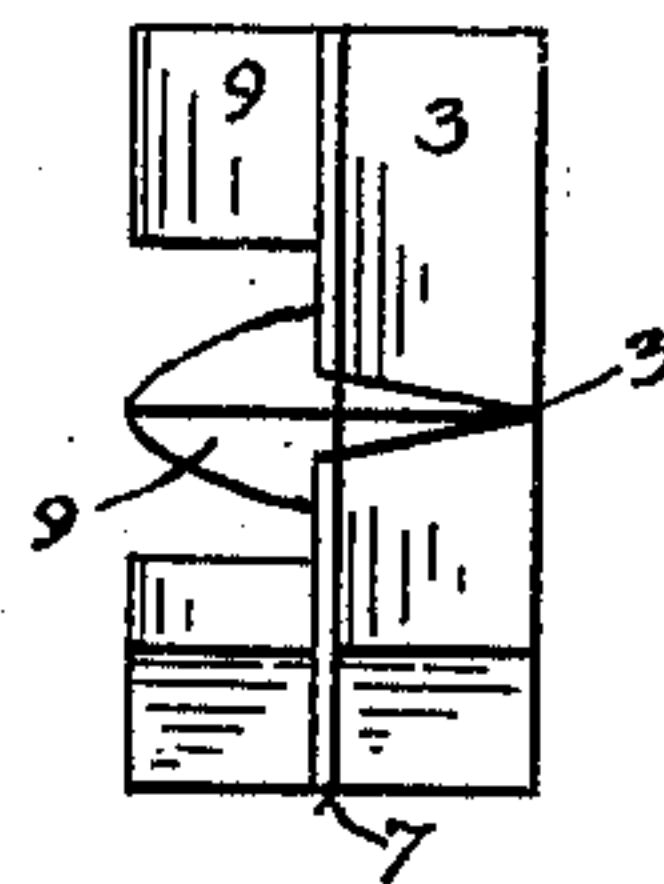


FIG. 4.

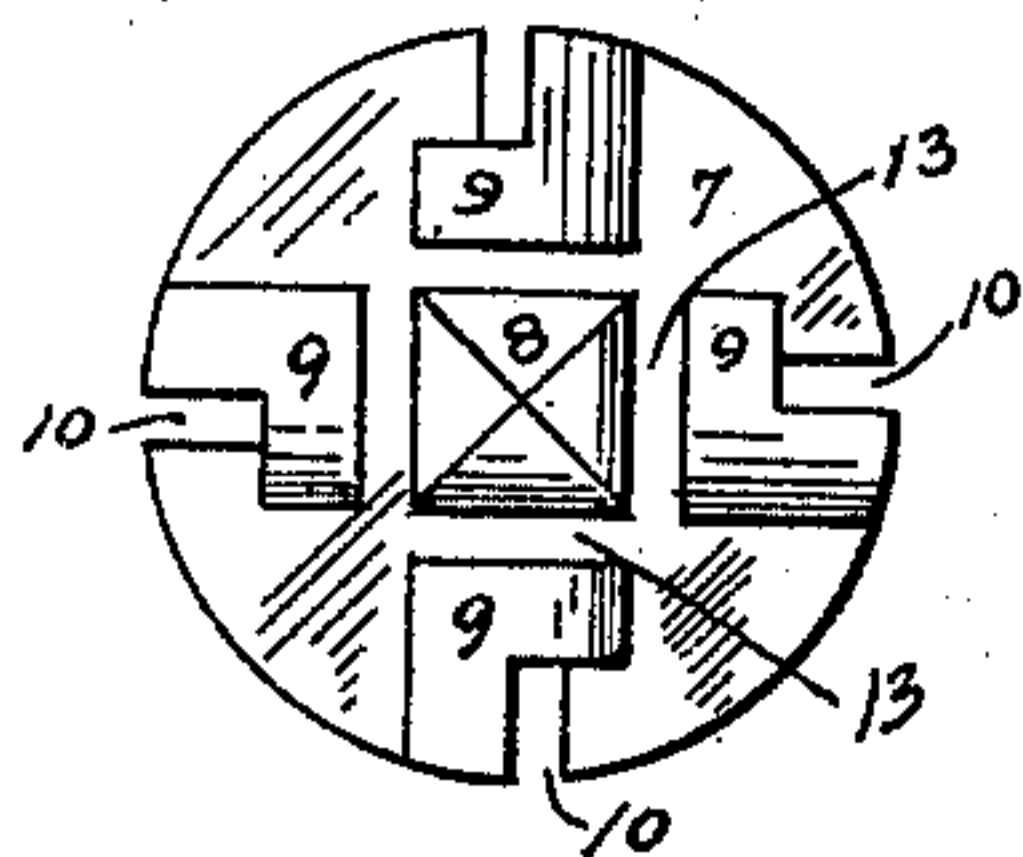
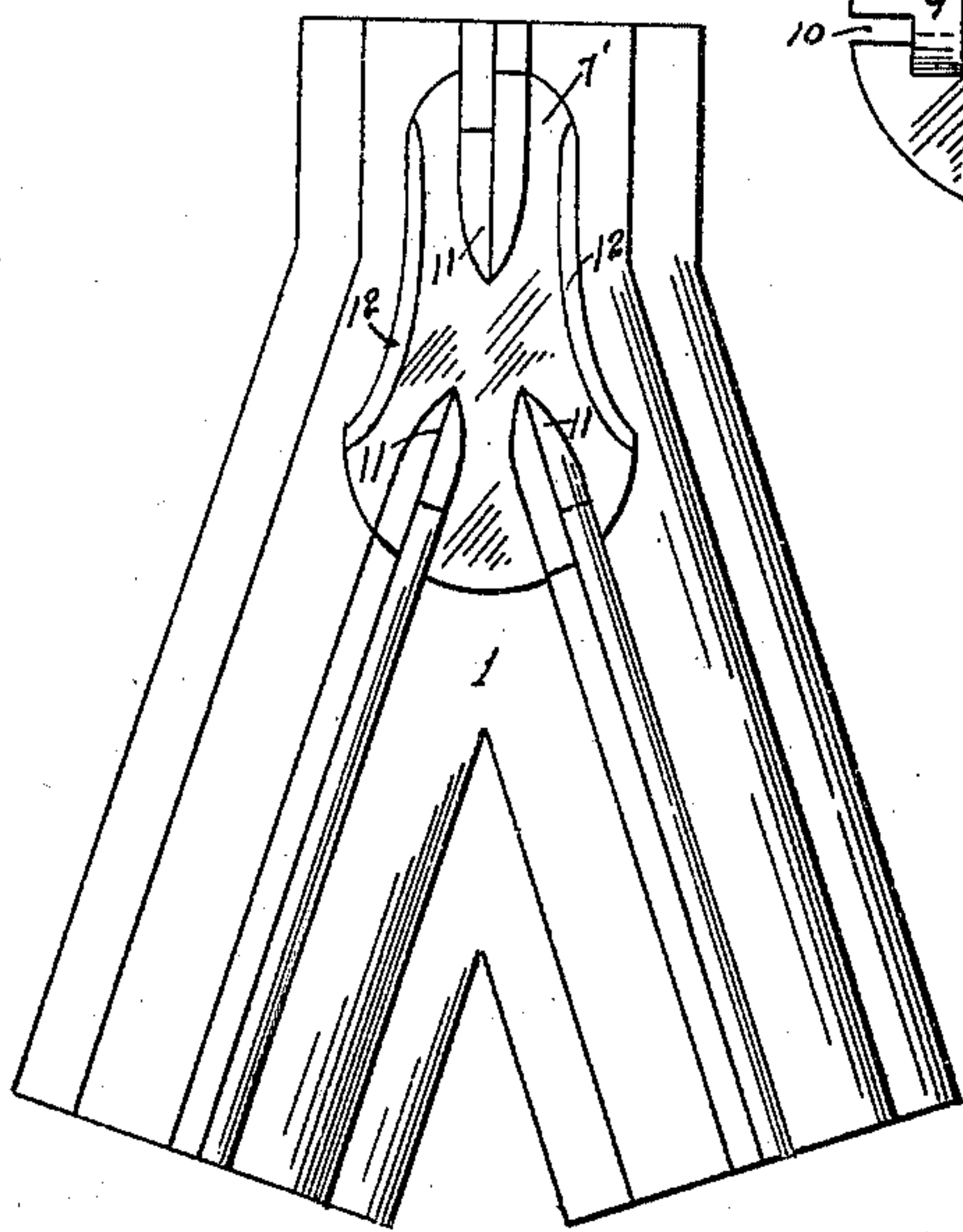


FIG. 2.

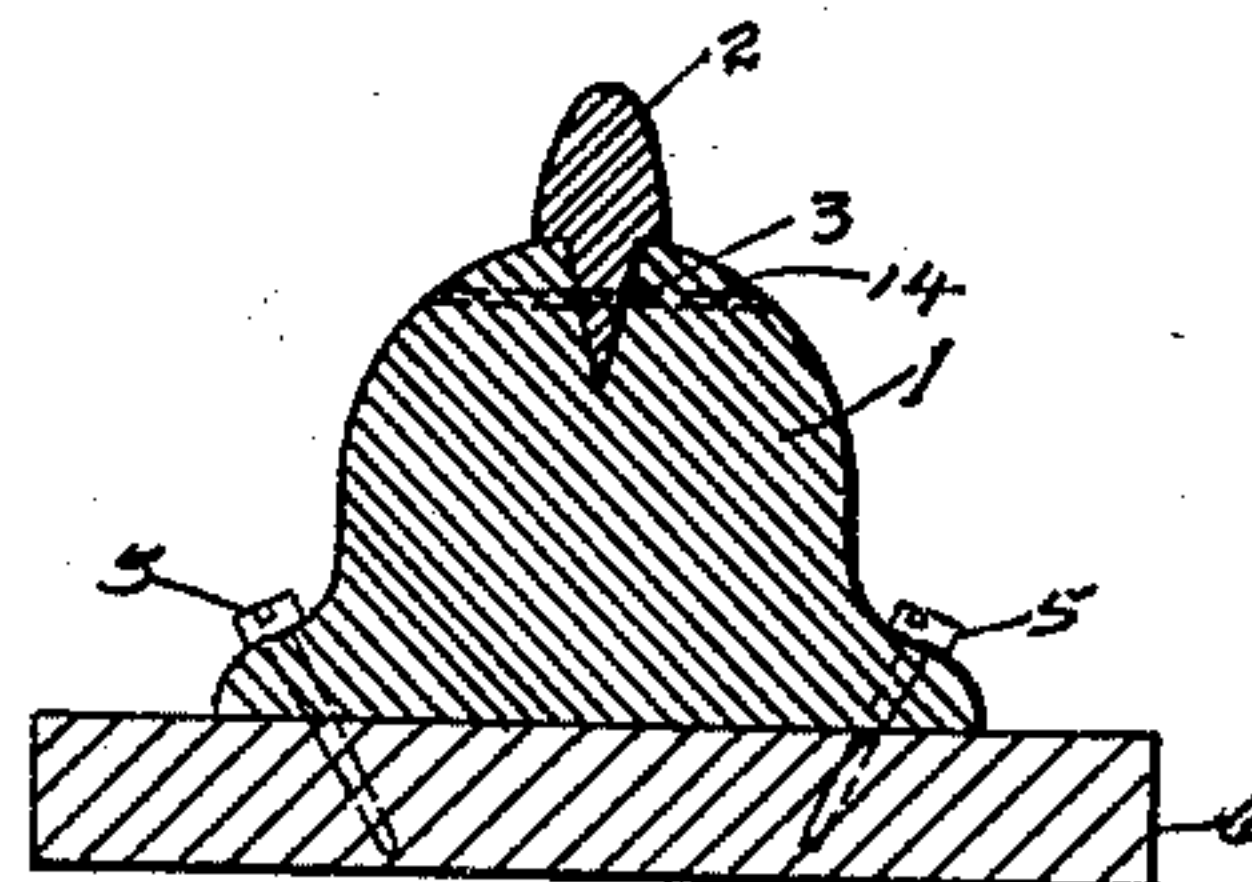


FIG. 5.

WITNESSES:

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TROLLEY-TRACK FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 654,574, dated July 24, 1900.

Application filed February 24, 1900. Serial No. 6,431. (No model.)

To all whom it may concern:

Be it known that I, VICTOR KOCH, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Trolley-Tracks for Electric Railways, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to electric railways in which a trolley-track is placed underneath or upon the ground for the purpose of electrical distribution to the moving car; and the objects of the invention are to provide
15 a simplified track of the kind, a simplified method of insulation and joining, and simplified switches and crossings used in connection with such railways.

20 To this end the invention consists of the construction, arrangement, and combination of the several parts herein shown and illustrated in the accompanying drawings, in which—

25 Figure 1 is a view in perspective of my trolley-tracks at a crossing. Fig. 2 is a top plan, enlarged, of the crossing-plate used at the intersection of the tracks. Fig. 3 is a side view of the crossing-plate shown in Fig. 2. Fig. 4 is a top plan of my trolley-track at a
30 switch. Fig. 5 represents a vertical cross-section of my trolley-track and fastenings when arranged for use.

35 Similar figures of reference denote like and corresponding parts throughout the several views.

Referring to the drawings, 1 designates an insulating base or rail constructed from porcelain, earthenware, glass, or any other suitable non-conducting material, and it is provided with a longitudinal V-shaped groove 3'
40 running its entire length.

45 The trolley-track proper consists of a copper or other metallic rail or rod 2, provided with a flange 3, exactly adapted to fit into the longitudinal groove 3' of the insulating-base and may be secured therein by transverse pins 12 12 at suitable points along its course. The base-piece is provided with notches 4 4, adapted to accommodate the
50 fastening pins or screws 5 5, which may secure the base to any suitable foundation—as, for example, a plank or tie 6.

The crossing of my device is constructed in a peculiar manner. I provide a circular member made of copper or other metal corresponding to that of the track 2. This consists of a circular base-plate 7, with a pyramidal projection 8 erected directly in its center and therefore in direct line of the two tracks crossing at right angles. The underneath portion of the plate 7 is provided with flanges 3 3, crossing centrally at right angles and corresponding exactly to the securing-flange of the rail 2, and directly over these flanges and opposed to each of the four sides of the pyramidal projection 8 are four projections 9 9, &c., the exact counterparts of the ends of the rails 2, which are adapted to be joined thereto by soldering, these portions 9 and the ends of the rails being halved by
55 vertical section cutting through the circular base 7 at 10 10, &c. Spaces 13 13 between the sides of the pyramidal projection 8 and the ends of the rails represented by the projections 9 9, &c., are left for the accommodation of the flanges of the trolley-wheel to be used in connection with the track.

Where a switch is used as shown in Fig. 4, an elongated base-plate 7' is substituted for the plate 7 in Figs. 2 and 3, the main function of the plate in either case being to complete the electrical conduction-circuit where the rail itself is discontinued or interrupted, the ends of the rails represented on said plate 7' being reduced to pointed ends 11 11, &c., and the rails 2 joined thereto by halving, the same as described in reference to the plate 7. The plate 7' is also further provided with lips or flanges 12 12, adapted to strengthen it and assist in guiding the trolley-wheel in making
80 a proper transition from track to track.

The operation of the device may now be readily explained. It is extended parallel to the tracks on which the trolley-car to be operated moves. Where an underground or elevated railway is to be operated, it may be extended along on the ground between the rails of the railway or to one side and secured to the ties or to planking of any suitable description. It may also be used in the open street, where it is lowered beneath the surface and protected by slotted casings, as in conduit-railways now in use.

I do not wish to be confined to the exact

shapes and constructions shown in the drawings, as some of them may be varied without materially departing from the spirit of my invention.

5 What I claim, and desire to secure by Letters Patent, is—

1. In a trolley-track of the kind described a crossing constructed from a circular plate integrally made with projections thereon corresponding to the ends of the rails of the trolley-track, and adapted to be joined therewith for the purpose of completing the electrical circuit through the said track, substantially as specified.

15 2. In a crossing for a trolley-track a circular plate of conducting metal corresponding to the metal used in the track, the said plate

containing in the center thereof a pyramidal projection 8 in line with both the crossing-tracks and opposite each of the sides of said pyramidal projection, projections 9, 9, &c., corresponding exactly to the ends of the rails of the trolley-track and adapted to be joined thereby to the ends of said rails and having spaces 13 between the said pyramidal projection; and the said projections 9, 9, for the purpose of accommodating the flanges of a trolley-wheel, substantially as specified. 20 25

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

VICTOR KOCH.

Witnesses:

D. G. MORAN,

LESTER ROCKWELL.