

(No Model.)

E. M. BENTLEY.  
ELECTRIC RAILWAY.

No. 343,884.

Patented June 15, 1886.

Fig. 1.

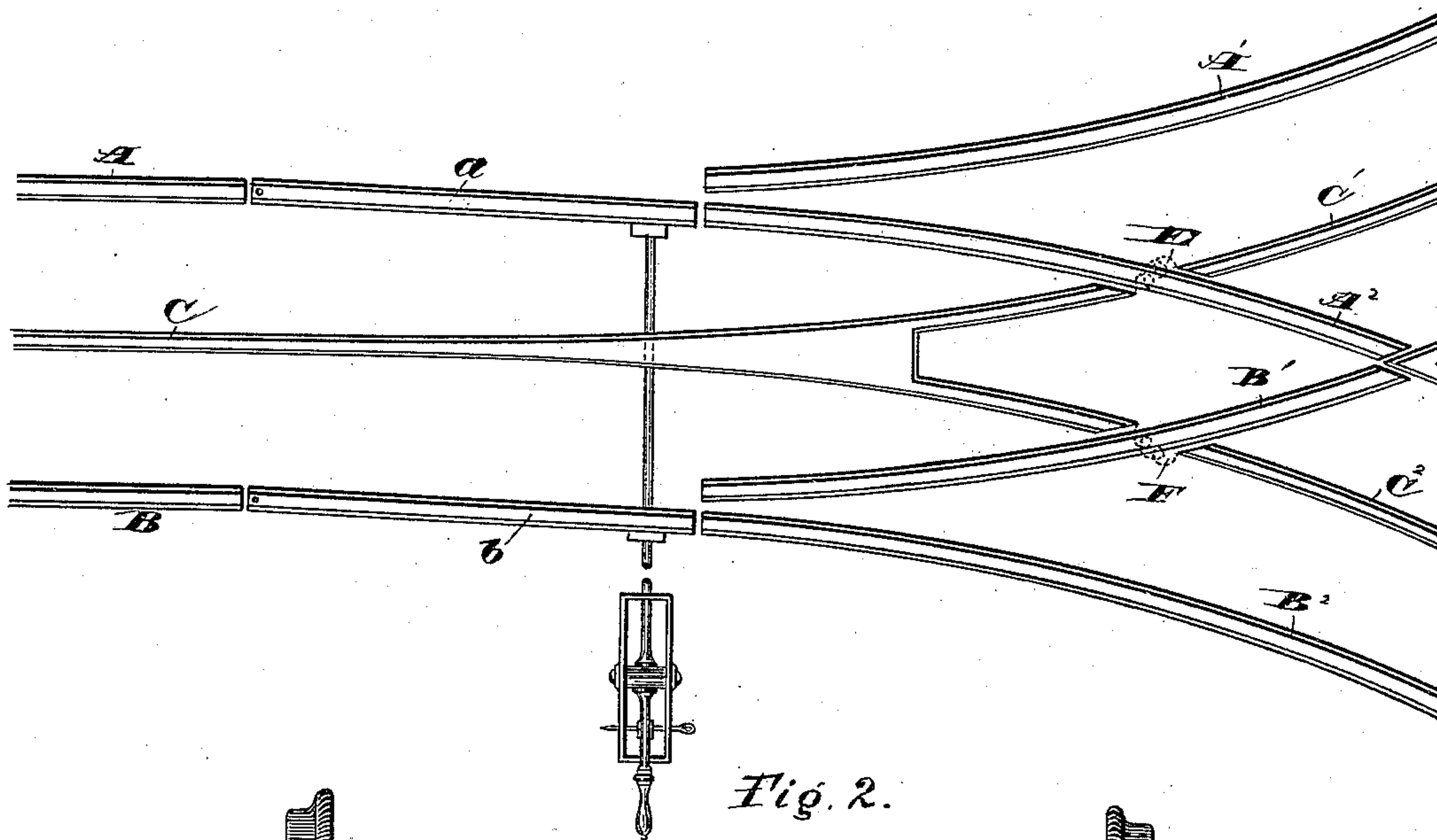


Fig. 2.

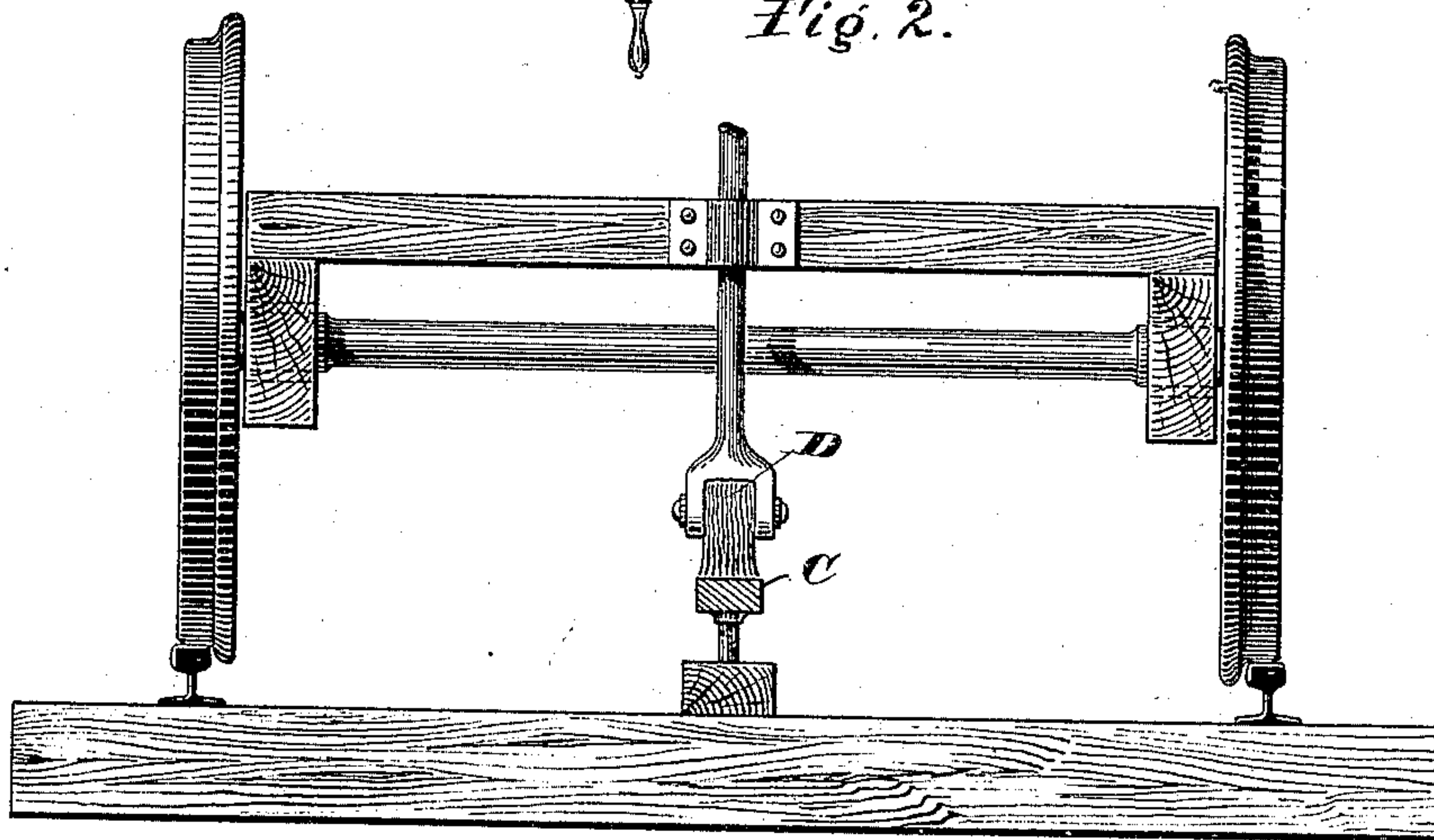


Fig. 3.

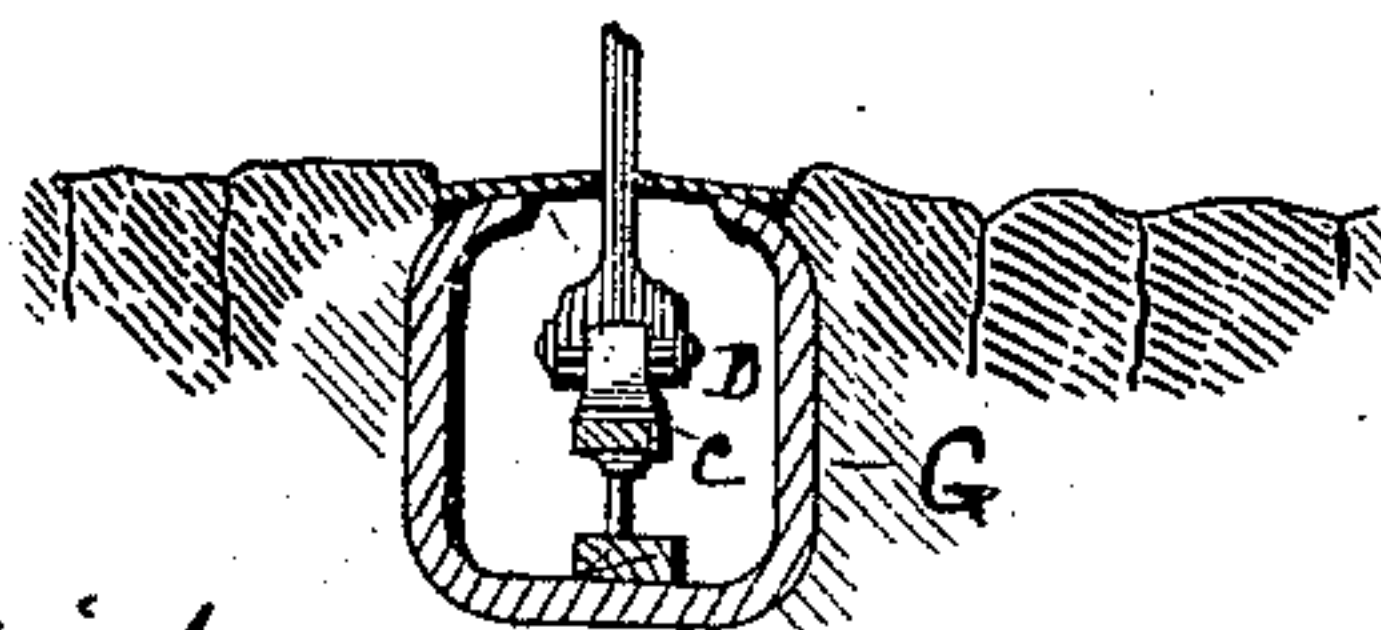
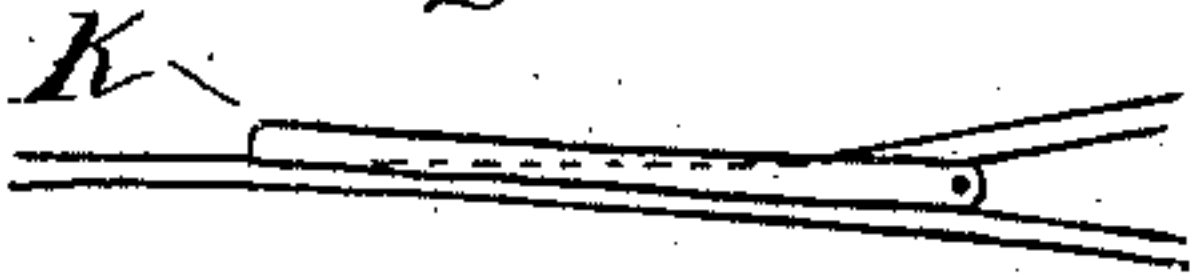


Fig. 4.

WITNESSES  
Albert E. Lynch  
Wm. M. Monroe.



INVENTOR  
Edward M. Bentley.  
By Bentley & Knight,  
attys



# UNITED STATES PATENT OFFICE.

EDWARD M. BENTLEY, OF BROOKLYN, NEW YORK.

## ELECTRIC RAILWAY.

SPECIFICATION forming part of Letters Patent No. 343,884, dated June 15, 1886.

Application filed July 10, 1885. Serial No. 171,193. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD M. BENTLEY, a citizen of the United States, and a resident of Brooklyn, New York, have invented certain new and useful Improvements in Electric Railways, of which the following is a specification.

In a patent granted to me October 7, 1884, I have shown a movable track-rail for switching a vehicle onto one or the other of two branch tracks combined with a movable conductor which perform the same office for a depending contact device.

In this invention I have substituted for the movable conductor a fixed conductor having two fixed branches extending along the two branches of the railway.

In the accompanying drawings, Figure 1 is a plan view of a railway-switch with a fixed conductor. Fig. 2 represents contact devices, while Figs. 3 and 4 represent the conductor inclosed in a slotted conduit.

In Fig. 1, A B are the two rails of the main track. A' and B' are the corresponding rails of one branch; A<sup>2</sup> B<sup>2</sup>, the corresponding rails of the other branch.

a b represent a movable section of the main rail adapted to be turned to switch a vehicle onto either branch track, in the usual manner.

C represents an insulated electrical conductor placed along between the two track-rails, and having two branches, C' and C<sup>2</sup>, extending along the two branches of the railway, respectively. The track-rails themselves in this case form the other conductor, though another conductor, insulated like C, may be employed.

D represents a contact-brush, depending from the vehicle and sweeping along the upper surface of conductor C.

It will be seen in Fig. 1 that at the branching point, C is spread out to a greater width, so that the brush D will always be sure of contact while the vehicle is changing from the main to one of the branch tracks. The conductors C' and C<sup>2</sup> are interrupted at the point where they cross the track-rails A<sup>2</sup> and B', and the connection is continued by the bridge-wires E F. The conductor C is placed slightly above the rails A and B, and the contact-brush D is longer than the break in the conductors where they intersect the rails, so that the brush will bridge the break, and yet, being elevated above the track-rails, will not come in contact therewith.

In Figs. 3 and 4, G represents a slotted conduit, of any well-known construction, and the shank, carrying the contact-brush D, extends through the slot of said conduit to the conductor C, which is inclosed in the conduit.

A movable guide-piece, K, Fig. 4, at the branch point of the slot, is adapted to be turned to guide the contact device into either one of the branch slots, as may be desired.

Having thus described my invention, what I claim is—

1. The combination, with a branching electric-railway track having one or more movable rails for switching a vehicle thereon from the main onto either branch track, of a permanently-fixed conductor parallel with said track, but insulated therefrom, having a bare contact-surface and having branches parallel with the branches of the track, respectively, and a contact device bearing upon the upper surface of said conductor and making a constant connection between it and the propelling motor of a vehicle upon the track.

2. The combination of a branching electric-railway track having one or more movable track-rails for switching vehicles from the main track onto either branch track of a branching slotted conduit parallel with said railway, a single permanently-fixed conductor in said conduit below the level of the track-rails, stationary at the branching point and having branches parallel with the branches of the track, respectively, and a contact device extending into said conduit and adapted to move along in contact with the upper surface of said conductor.

3. The combination of a branching railway-track having one or more movable track-rails for switching vehicles from the main track onto either branch track of a branching slotted conduit parallel with said railway, a single permanently-fixed conductor in said conduit having branches parallel with the branches of the track, respectively, a contact device extending into said conduit and adapted to move along in contact with the upper surface of said conductor, and a movable slot-piece at the point of branching, for guiding the said contact device.

EDWARD M. BENTLEY.

Witnesses:

ALBERT E. LYNCH,  
CHAS. H. DORER.