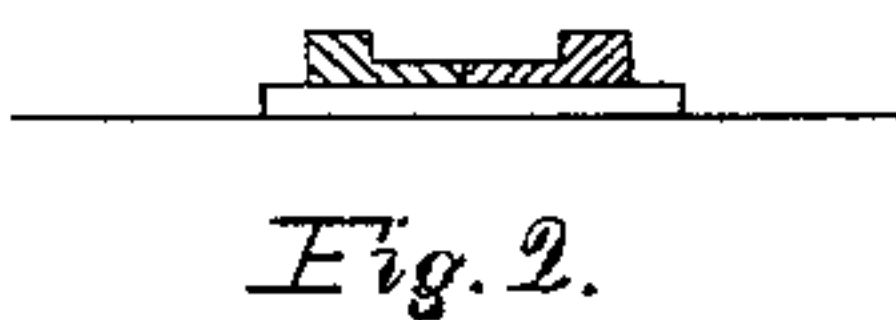
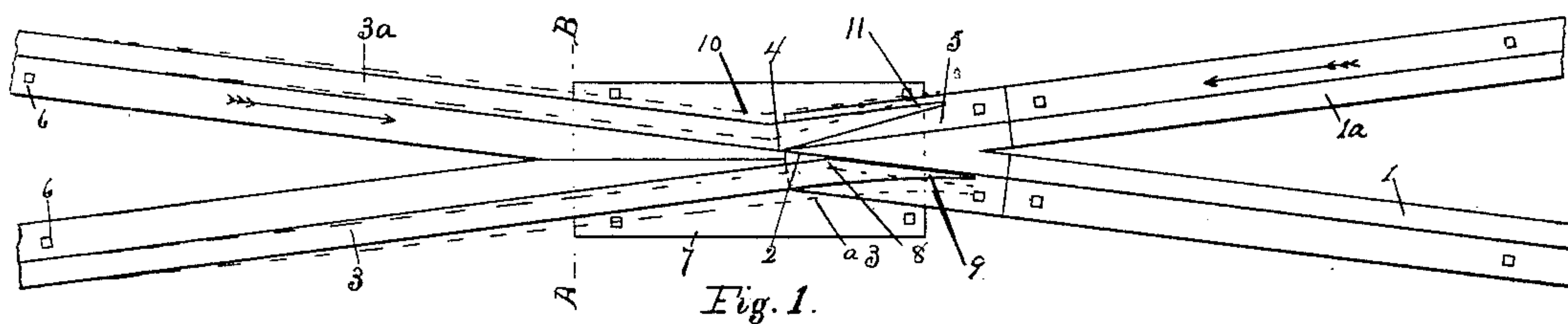


(No Model.)

M. LEARY.  
AUTOMATIC RAILWAY FROG.

No. 405,965.

Patented June 25, 1889.



Witnesses.

Attestation  
M. Robinson

Inventor.

M. Leary  
By R. R. Perry  
Atty

# UNITED STATES PATENT OFFICE.

MICHAEL LEARY, OF UTICA, NEW YORK, ASSIGNOR OF ONE-HALF TO  
JAMES F. MANN, OF SAME PLACE.

## AUTOMATIC RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 405,965, dated June 25, 1889.

Application filed January 7, 1889. Serial No. 295,609. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL LEARY, of Utica, in the county of Oneida and State of New York, have invented certain new and  
5 useful Improvements in Automatic Railroad-Frogs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use  
10 the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to a railroad-frog;  
15 and it consists in the mechanism hereinafter pointed out and claimed.

In the drawings, Figure 1 represents a plan view of my improved railroad-frog. Fig. 2 shows a section on line A B, Fig. 1.

20 In the drawings the flight of the arrows represents the course taken by the moving car on the track.

In my invention I provide two converging stationary rails. In the drawings, 1 and 1<sup>a</sup>  
25 represent the two converging stationary rails, and the union of the two stationary rails forms stationary V-shaped point 2. The two movable rails 3 and 3<sup>a</sup> each have what I term a "double" or "compound" Y 4 and 3. The  
30 central lines of the compound Y are slightly separated, so that the stationary V-shaped point is located at the angle 4 in the compound Y, which is formed by the converging movable rails 3 and 3<sup>a</sup>, so that when the car  
35 is moving in the direction indicated by the arrow at the right of Fig. 1 the flange of the car-wheel, moving on the stationary rail, enters the compound Y at 5, thereby shifting the movable rail into the position shown  
40 in dotted lines at 10, and when the car is moving in the direction shown by the arrow at the left of Fig. 1 the flange of the wheel runs between stationary V-shaped point 2 of the stationary rails and point 8 of rail 3, and  
45 thus moves the movable rail 3 into the position shown in dotted lines, as shown at a<sup>3</sup> in Fig. 1. The movable rails are rigidly secured at 6 6 on the ties or stringers on which the track is laid, and the Y ends of the rails  
50 are moved into the position shown in full lines by the operation of the spring which is afforded in the rails, and are free to be moved into the position shown in dotted lines by

the passage of the flange of the car-wheel. Underneath the V point and the Y, I provide  
55 stationary plate 7, which forms a solid and reliable bearing for the stationary V-shaped point and the compound Y ends of the movable rails, on which plate the movable rails are free to move, as heretofore described. 60

The stationary V-shaped point formed by the two stationary rails may be made separate from the rails, but connected with the same.

What I claim as new, and desire to secure by Letters Patent, is— 65

1. In a railroad-frog, the combination of two stationary converging rails terminating in a V-shaped point, a movable rail having the point of the angle between the body line and tapering point of the rail at or before  
70 the V-shaped point, and a movable rail having the angle between the body line and tapering point at the side of and behind the V-shaped point, substantially as described.

2. In a railway-frog, the combination of the  
75 two converging stationary rails terminating in a V-shaped point, a movable rail terminating in a tapering point, which taper is parallel with one side of the V-shaped point, and a movable rail terminating in a tapering  
80 point which converges with a side of a V-shaped point from the stationary rail toward the point, substantially as set forth.

3. In a railway-frog, the combination of the converging stationary rails terminating in a  
85 V-shaped point 2, a movable rail 3<sup>a</sup>, having the point 4 thereof at or before the point 2, and a movable rail 3, having point 8 thereof at the side of the V-shaped point, substantially as described. 90

4. In a railway-frog, the combination of two stationary converging rails terminating in a V-shaped point 2, a movable rail 3<sup>a</sup>, having a tapering point 11 removed from the side of the V-shaped point 2, and the point 4 of the  
95 rail 3<sup>a</sup> at or in advance of the V-shaped point 2, and movable rail 3, having tapering point 9 adjacent to the side of V-shaped point 2, substantially as described.

In witness whereof I have affixed my signature in presence of two witnesses. 100

MICHAEL LEARY.

Witnesses:

EDWIN H. RISLEY,  
JOSIAH PERRY.