

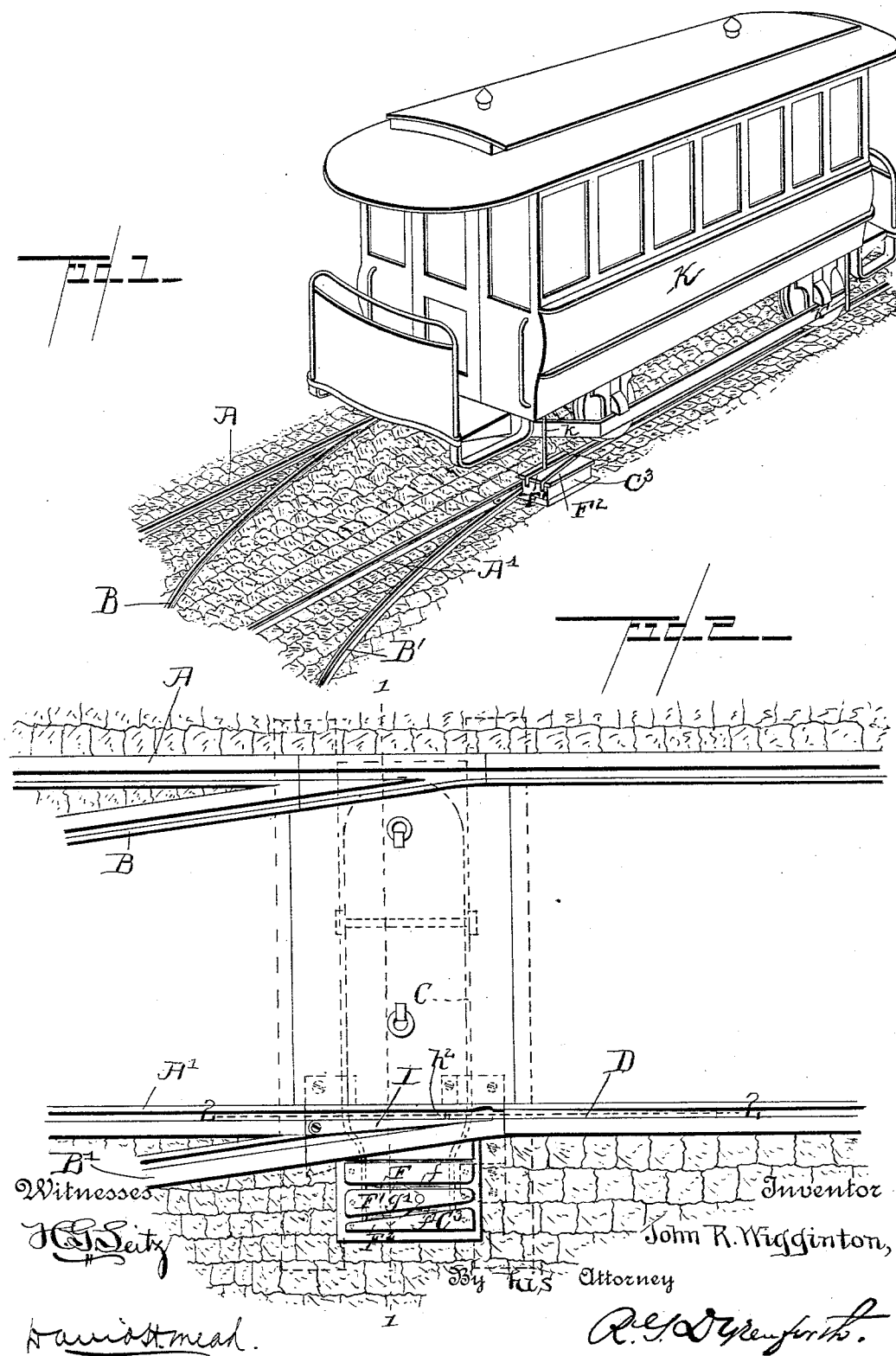
(No Model.)

3 Sheets—Sheet 1.

J. R. WIGGINTON.
TRAMWAY SWITCH.

No. 476,713.

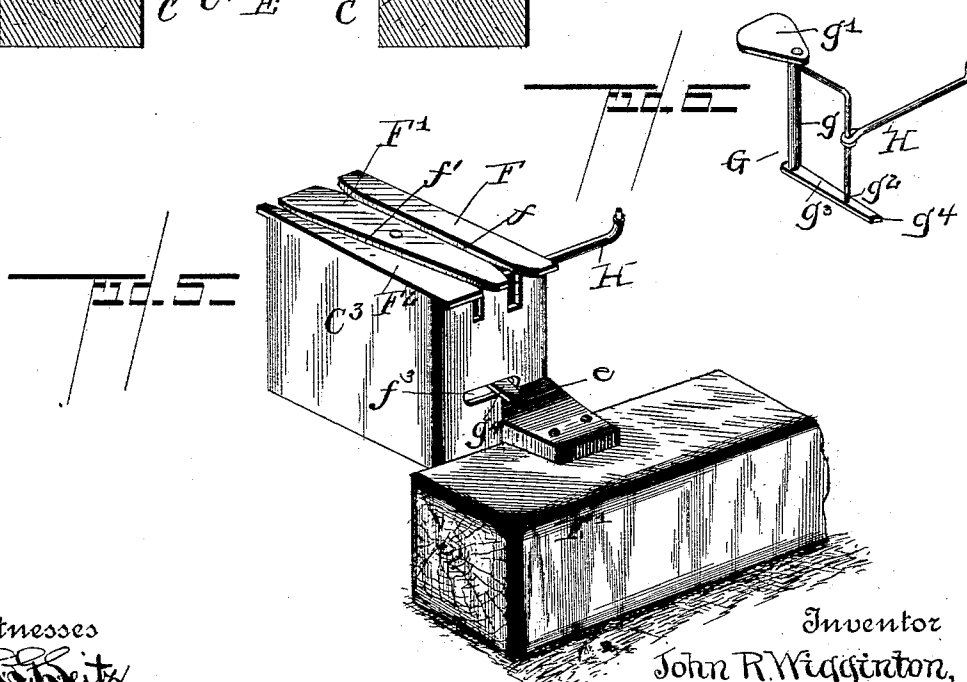
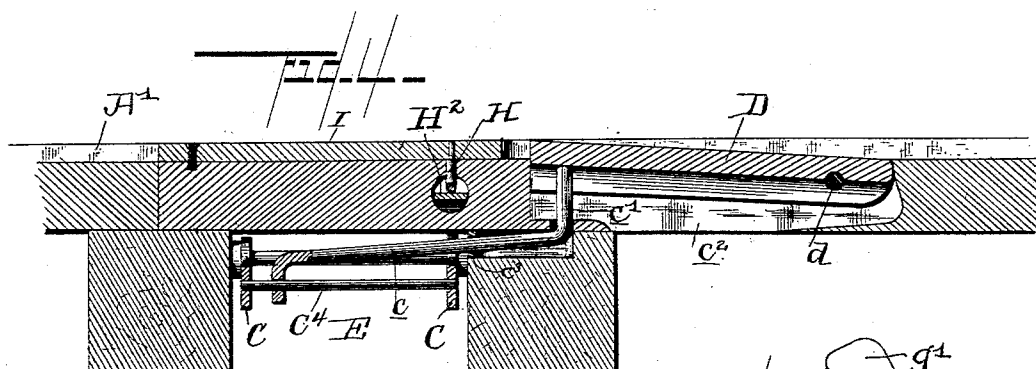
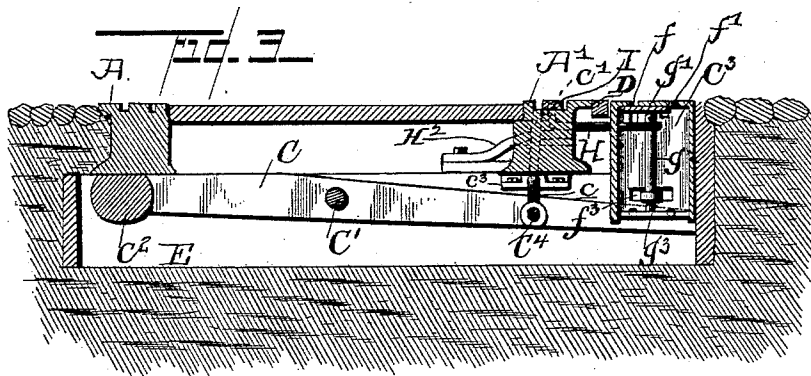
Patented June 7, 1892.



3 Sheets—Sheet 2.

No. 476,713.

Patented June 7, 1892.



Witnesses

J. H. Seitz

David St. mead.

Inventor

John R. Wigginton,

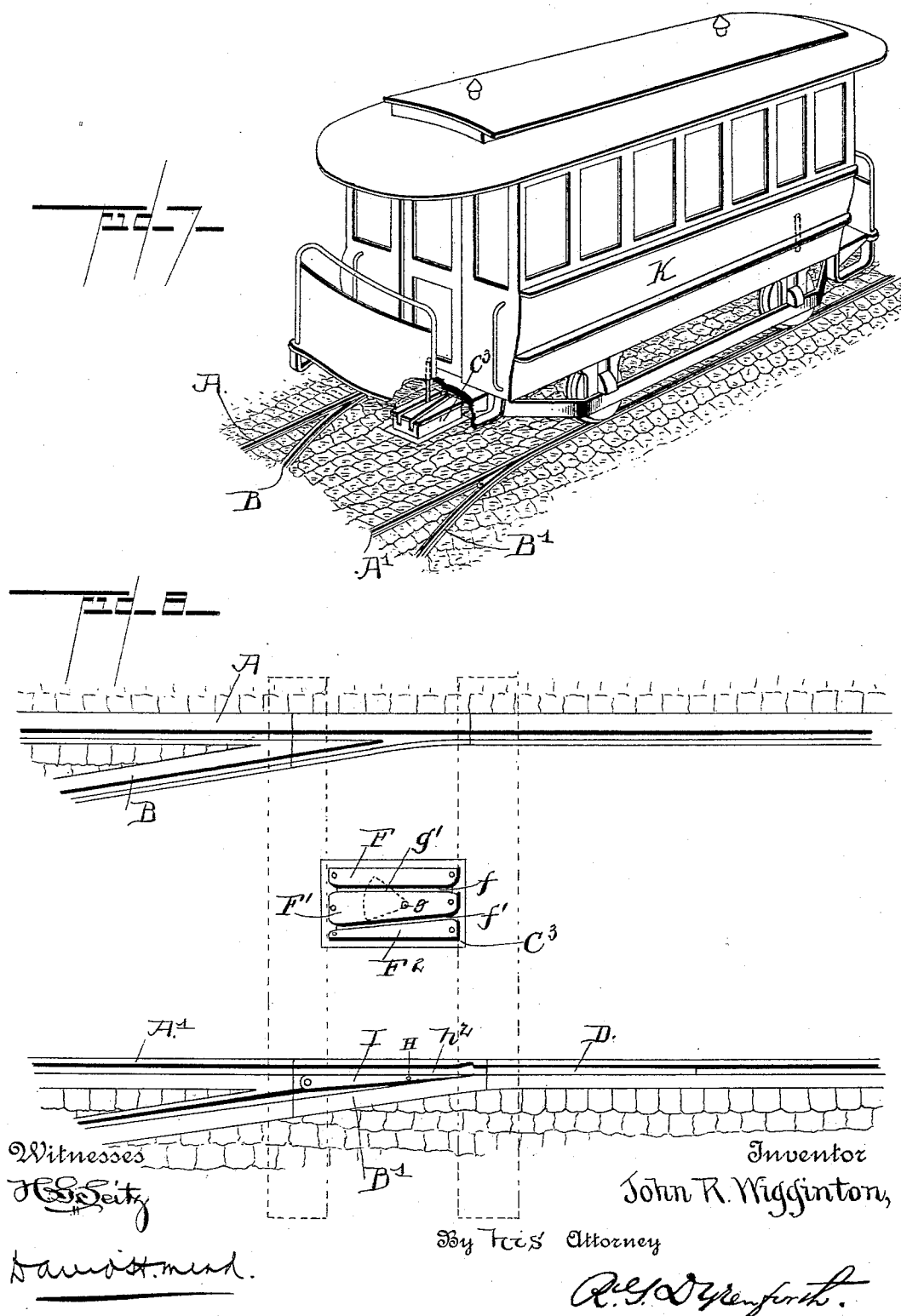
By His Attorney

A. S. Wyndforth.

3 Sheets—Sheet 3.

No. 476,713.

Patented June 7, 1892.



UNITED STATES PATENT OFFICE.

JOHN R. WIGGINTON, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
OF ONE-HALF TO WILLIAM R. H. ALEXANDER, OF SAME PLACE.

TRAMWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 476,713, dated June 7, 1892.

Application filed January 20, 1892. Serial No. 418,639. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. WIGGINTON, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Railway-Switches; and I do hereby declare the following to be a 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.

This invention relates to railway-switches.

The object of the invention is to construct a switch that will be simple, durable, efficient, and automatic in its operation.

The invention consists in the improved construction, arrangement, and combination of parts, as will be hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, and in which like letters of reference indicate corresponding parts, Figure 1 is a perspective view of a track provided with my improved switch and of a car in position to operate the switch, the switch-box being shown on the outside of the track. Fig. 2 is a top plan view of a track and a switch, the switch-box being shown outside of the track. Fig. 3 is a transverse section on the line 1 1 of Fig. 2. Fig. 4 is a longitudinal section on the line 2 2 of Fig. 2. Fig. 5 is a perspective view of the switch-box locked on an elevated position. Fig. 6 is a perspective of the lever for operating the switch bar or tongue. Fig. 7 is a perspective view of a track and switch and car in position to operate the switch, the switch-box being between the tracks. Fig. 8 is a plan view of a track and switch, the switch-box being between the tracks.

In all the figures of the drawings, A and A' indicate the ordinary rails of a track, and B and B' the rails of a side track in connection therewith. Arranged below the track in a suitable pit E, having proper walls, is a swinging frame C, pivoted at C', and having at one end a weight C² and at the other end a switch-box C³, capable of moving up and down in the opening. Near the end of said frame C is placed a cross-rod C⁴. Eyed on the cross-rod C⁴ and extending longitudinally of the track

is an arm c, having an upturned end c' projecting in a slot c² in the rail, said arm being loosely fulcrumed in a bearing c³, secured to a sleeper. In the slot c² is a lever D, pivoted at d to the rail and having its free end resting upon the upturned end c' of the arm c. The top of the switch-box C³ is provided with the top slats F F' F², leaving the slots f and f'. This box is also provided at one end with the slot f³.

Pivoted within the switch-box C³ is the switch-lever G. This lever consists of the upright g, provided with the triangular-shaped plate g'. Connected to the upright g are the angle-iron g² and the plate g³, having the projecting end g⁴, which projects through the slot f³ of the switch-box. Eyed on the angle-iron g² and free to move up and down thereon is a rod H, which is loosely connected with the switch-tongue I, and is held in operative position therewith by means of a plate H², secured on a sleeper beneath rail A', which tongue is moved in a transverse slot h² in the rail A'.

Attached to one side of the pit E, or, if desired, to a sleeper E', is a lug e, upon which rests the end g⁴ of the plate g³. The elevation of the lug e is such that the end g⁴ of the plate g³ rests on the lug when the switch-box is in an elevated position.

The car K is provided near the front and rear thereof with hangers k and k'.

In operation it will readily be seen that when the forward wheel of the car runs upon the lever D, which rests upon the upturned end of the arm c, the arm will be depressed, raising the switch-box C³, and the forward hanger k of the car will enter the slot f of the box, and coming in contact with the cam-shaped plate g' swings the switch-lever G, causing the arm H to move the switch-tongue I, and the extended end g⁴ of the plate g³ to rest upon the lug e and hold the box in an elevated position and permit the car to pass upon the switch-rails B and B'. As the car proceeds upon the track, the rear hanger k' enters the slot f' in the switch-box, and coming in contact with the side of the cam-shaped plate g' opposite to that engaged by the hanger k causes the switch-lever to be swung back

to its normal position, and after releasing the extended end g^4 of the plate g^3 , the switch-box being slightly heavier than the weight C^2 , will descend to its normal position in the pit E, as shown in Fig. 3, in which position its upper surface is flush with the track, thus presenting no obstruction to pedestrians or to vehicles. To prevent the freezing of the switch-box in the pit, the extended end of the slats F, F', and F² rest upon pins (not shown) in the upper edges of the wall of the pit, and said upper edges are beveled, so that water or melted snow will readily run off into the pit, which can be cleaned out or baled from time to time or let off into the street-sewer by pipes.

From the foregoing it will be readily understood that the switch works automatically and that the car alone and its hangers are enabled to put the entire device into operation to both open and close the switch bar or tongue.

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

1. A railway-switch comprising a switch-box situated adjacent to the rails of a track capable of vertical movement, a switch-lever arranged within the box, a switch-tongue connected with the switch-lever, a swinging frame supporting the box, an inclined lever pivoted in or adjacent to the rail, and a connection

between the lever and frame, substantially as described.

2. A railway-switch comprising a switch-box situated adjacent to the rails of a track capable of vertical movement, a switch-lever arranged within the box, a switch-tongue connected with the switch-lever, a pivoted frame supporting the box, a lever pivoted in or adjacent to the rail, a connection between the lever and the frame, a lug on the wall of the opening receiving the frame and box, and a projection on the switch-lever engaging the lug, substantially as described.

3. A railway-switch comprising a vertically-movable switch-box situated adjacent to the rails of a track, a switch-lever arranged within the box, a switch-tongue, a rod loosely connecting the said lever with the tongue, a plate for supporting the end of the rod, a pivoted frame supporting the box, a lever pivoted in or adjacent to the rail, a connection between the lever and the frame, a lug on the wall of the opening receiving the frame and box, and a projection on the switch-lever engaging the lug, substantially as described.

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

JOHN R. WIGGINTON.

Witnesses:

W. B. HANCOCK,
J. M. PASCOE.