

(No Model.)

2 Sheets—Sheet 1.

J. R. POTTER.

AUTOMATIC CAR SWITCH.

No. 381,949.

FIG. 1 Patented May 1, 1888.

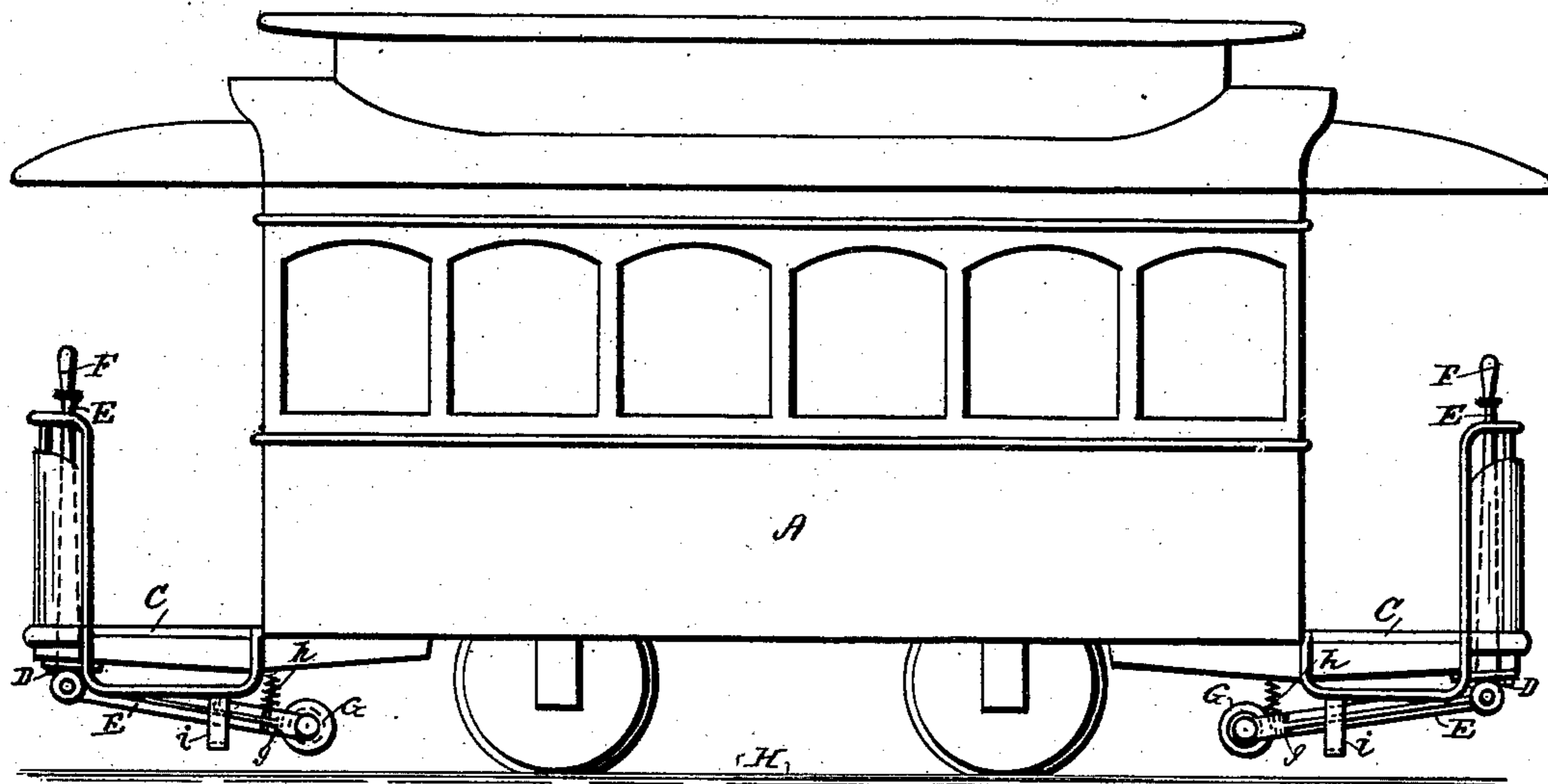
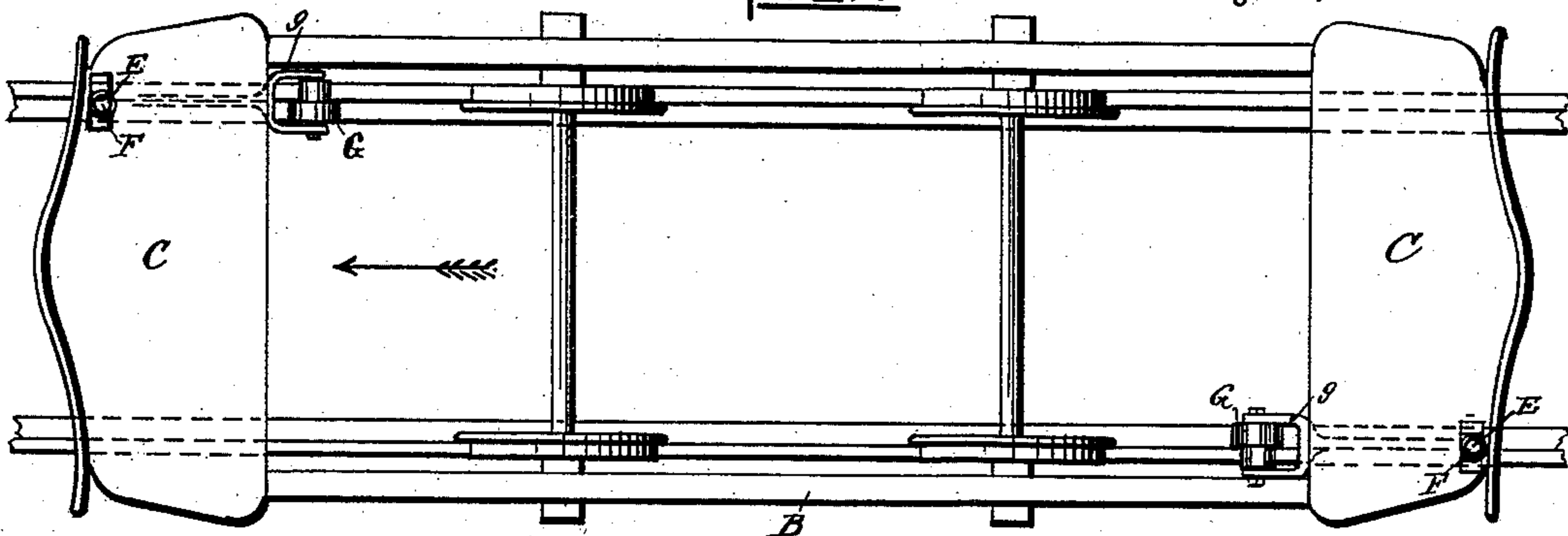


FIG. 2

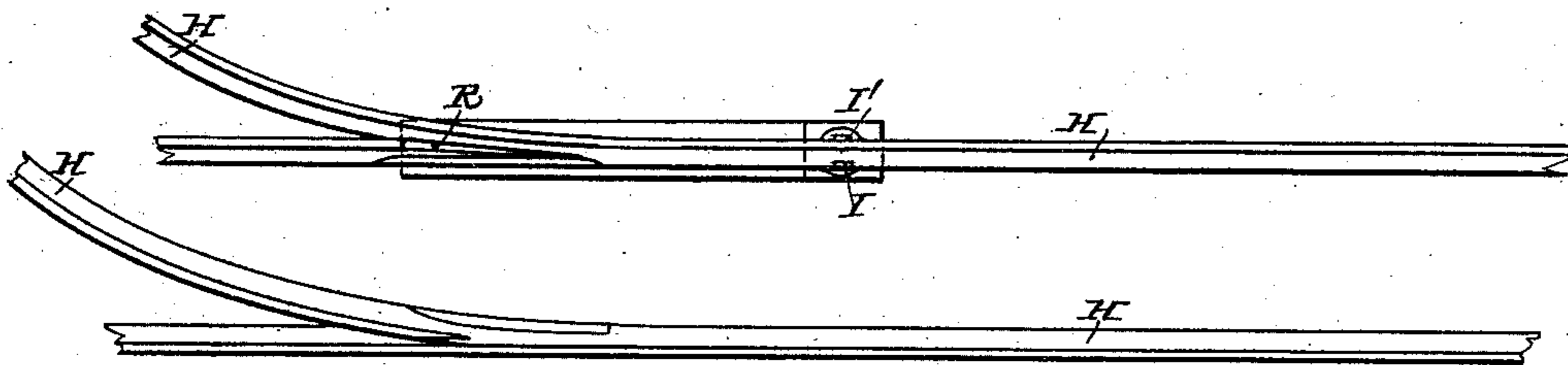


FIG. 3

WITNESSES.

*James W. Brennan.*  
*James Johnson.*

INVENTOR.

*James R. Potter.*  
*per S. Schofield.*  
*Attorney*

(No Model.)

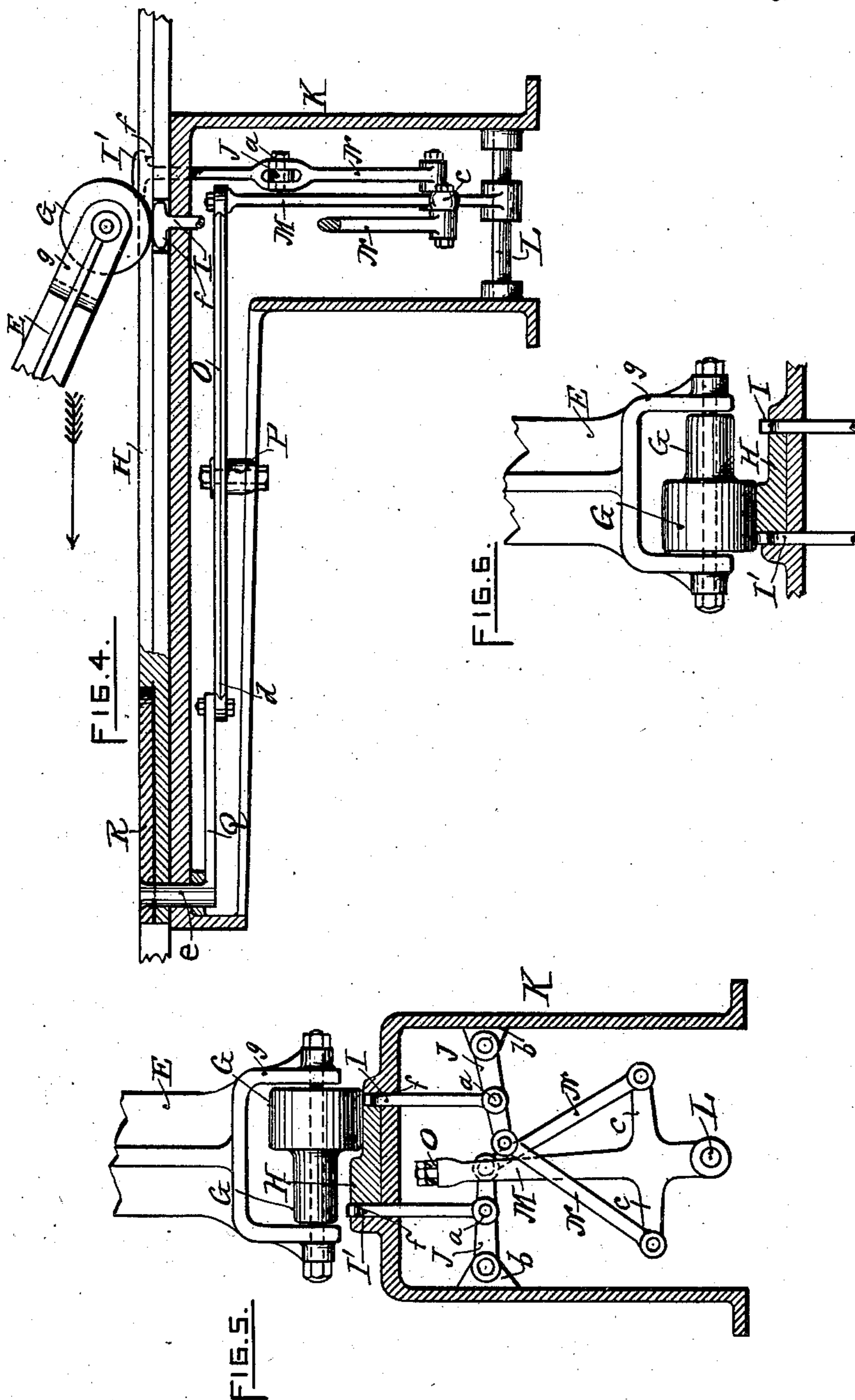
2 Sheets—Sheet 2.

J. R. POTTER.

AUTOMATIC CAR SWITCH.

No. 381,949.

Patented May 1, 1888.



WITNESSES.

James W. Brumby.  
James Johnson.

INVENTOR.

James R. Potter.  
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Attorney

# UNITED STATES PATENT OFFICE.

JAMES R. POTTER, OF PROVIDENCE, RHODE ISLAND.

## AUTOMATIC CAR-SWITCH.

SPECIFICATION forming part of Letters Patent No. 381,949, dated May 1, 1888.

Application filed October 14, 1887. Serial No. 252,396. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES R. POTTER, of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Automatic Car-Switches, of which the following is a specification.

My invention consists in the combination of a system of levers with the switch-bar of the track, the said levers and switch-bar being adapted for movement by means of a hand-lever attached to the car, as hereinafter described and claimed.

Figure 1 represents a plan view, with the body of the car removed, leaving the platforms and showing the hand-levers for operating the switch. Fig. 2 is a side elevation of the car, also showing the hand-levers for operating the switch. Fig. 3 is a plan view of the track and switch. Fig. 4 is a longitudinal vertical section showing the system of levers which serve to operate the switch-bar of the track. Fig. 5 is a transverse vertical section of the same. Fig. 6 is a detail view showing the reversible roller for the operating-lever.

In the accompanying drawings, A is the body of the car; B, the frame to which the body is attached; C C, the platform at the ends of the car. To a bracket, D, at the underside of the platform C, is pivoted the bell-crank lever E, having at its upper end a handle, F, and provided at its forked lower end with a roller, G, which is preferably made of two diameters, as shown in Figs. 5 and 6, in order that the said roller can be used reversibly to operate the switch-bar from either side of the rail H of the track.

The ordinary rail for horse-car tracks is shown in sections in Figs. 5 and 6, and at each side of the said rail I arrange the tappet-bars I I', which are arranged to project slightly above the adjacent surface of the rail and are adapted for a downward movement to a position flush with said surface when engaged by the periphery of the roller G. The tappet-bars I I' are jointed at the point *a* to the inwardly-projected levers J J, which are pivoted to suitable ears, *b b*, at opposite sides of the containing frame or box K, which is placed lengthwise under the rail H.

Upon a shaft, L, is secured the upright le-

ver M, made in the form of a cross, with the arms *c c*, from which connection is made to the inner end of the levers J J by means of the connecting-rods N N. At the upper end of the cross-lever M is loosely jointed the lever O, which is pivoted to a stud, P, and at the outer end, *d*, of the lever O jointed connection is made to the pivoted arm Q, to the pivot *e* of which is attached the switch-bar R, so that the said switch-bar will partake of the movement of the arm Q. The tappet-bars I I' are each provided with a head, the shoulders *f* of which serve to form a stop at the proper point of the downward movement of the tappet-bar, thus imparting the required degree of movement to the switch-bar R.

In operating with my improved switch-turning attachment the roller G can be set to operate either upon the head of the tappet-bar I or I' by reversing the said roller in its holding-fork *g*, the said roller, when set as shown in Fig. 5, being adapted to act upon the inner bar, I, and when reversely set as shown in Fig. 6, to act upon the outer bar, I', thus causing a reverse movement of the switch-bar R. When the roller G has been properly set to turn the switch-bar in the right direction, the driver of the car is required upon approaching the switch to depress the roller G to the track in order to cause the downward movement of the proper tappet-bar I or I', and by this means to cause the proper turning of the switch. The lever E, which carries the roller, is held up, when not in use, by means of the spring *h*, and the said lever E is held against lateral displacement by means of the slotted side guide, *i*.

I claim as my invention—

1. In combination, the rail H, tappet-bars I I', located upon opposite sides of the rail, levers J J, pivoted to the tappet-bars I I', upright lever M, connecting-rods N N, lever O, pivoted arm Q, and switch-bar R, substantially as described.

2. In combination, the rail H, tappet-bars I I', located upon opposite sides of the rail, levers J J, pivoted to the tappet-bars I I', upright lever M, connecting-rods N N, lever O, pivoted arm Q, switch-bar R, and the bell-

crank lever E, adapted to depress one of the tappet-bars I I', substantially as described.

3. In combination, the rail H, tappet-bars I I' located upon opposite sides of the track,  
5 one extending higher than the other, the switch-bar R, the system of levers, as described, for connecting the tappet-bars with the switch-bar,

and the lever E, provided with the reversible roller G, having two diameters, substantially as and for the purpose specified.

JAMES R. POTTER.

Witnesses:

SOCRATES SCHOLFIELD,  
JOHN S. LYNCH.