(No Model.)

2 Sheets—Sheet 1.

H. H. ROCHE.

AUTOMATIC CAR SWITCHER.

No. 590,794. Patented Sept. 28, 1897.

Fig. 1.

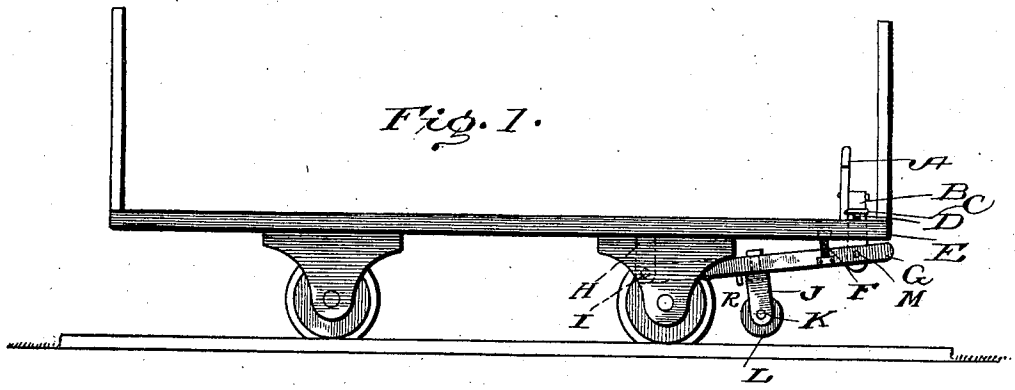


Fig. 2.

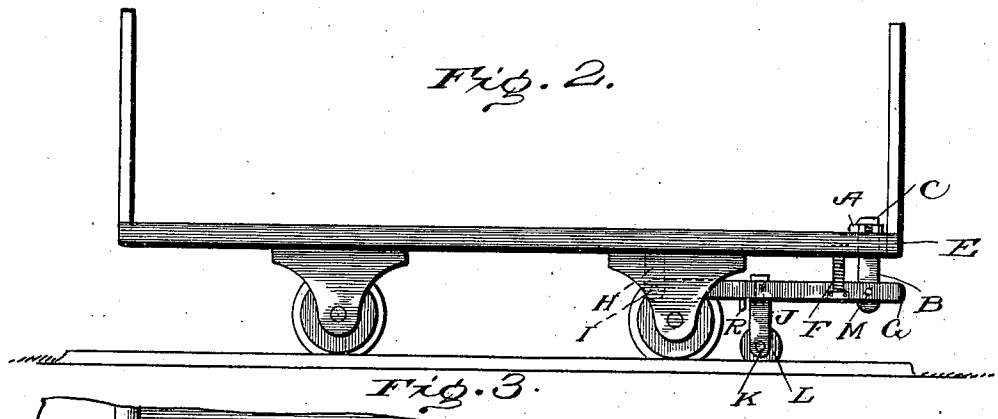


Fig. 3.

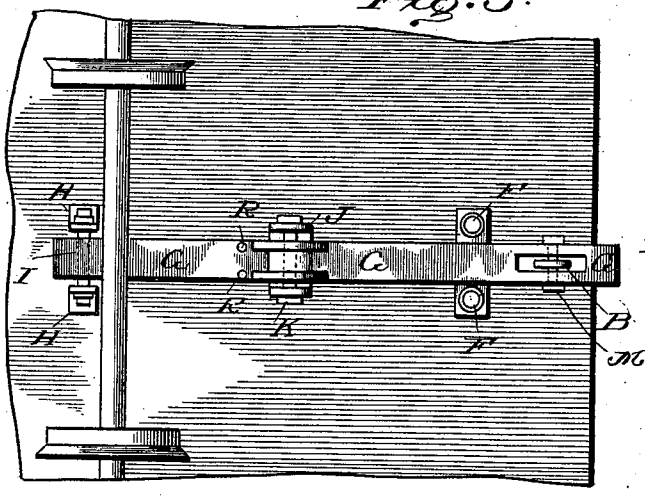


Fig. 4.

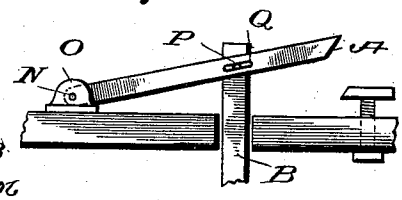
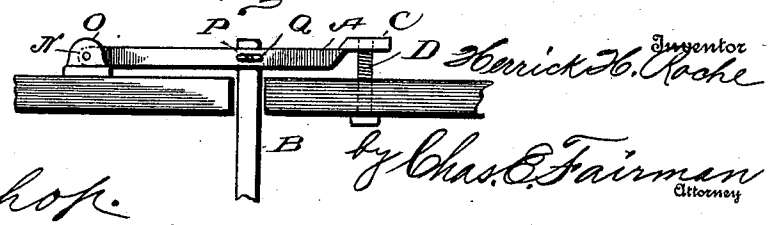


Fig. 5.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

H. H. ROCHE.

AUTOMATIC CAR SWITCHER.

No. 590,794. Patented Sept. 28, 1897.

Fig. 6

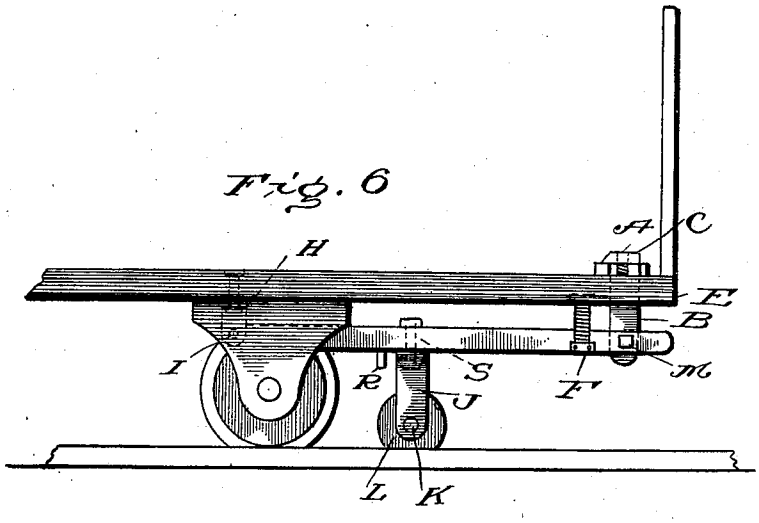

Fig. 7.

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UNITED STATES PATENT OFFICE.

HERRICK HEWITT ROCHE, OF KINGSTON, CANADA.

AUTOMATIC CAR-SWITCHER.

SPECIFICATION forming part of Letters Patent No. 590,794, dated September 28, 1897.

Application filed March 17, 1897. Serial No. 628,044. (No model.)

To all whom it may concern:

Be it known that I, HERRICK HEWITT ROCHE, druggist, residing at the city of Kingston, in the county of Frontenac and Province of Ontario, Canada, have invented a new and useful Automatic Car-Switcher, of which the following is a specification.

My invention is designed to enable a man standing on the front platform of a moving car to guide the car onto a switch by bringing a guide-wheel beneath the car into connection with a stationary guide-rail laid between the rails at the switch and following their curve, and in this manner obviating the necessity for movable rails or points on the ground which cannot be properly operated from the car.

My invention is fully described below in accordance with the accompanying drawings, in which—

Figure 1 is a side elevation of a car-truck, showing the appliance not in use; Fig. 2, a side elevation of a car-truck, showing the appliance in operation; Fig. 3, a plan of car-truck, showing plan of the appliance; Fig. 4, a section of car-platform, showing foot-lever when not in use; Fig. 5, a similar section showing the foot-lever in operation; Fig. 6, an enlargement of Fig. 2, and Fig. 7 a plan of the guide-track.

Similar letters refer to similar parts throughout the several views.

In Figs. 4 and 5 of the drawings, A is a foot-lever on the car-platform E, running parallel and close to the dashboard, working on a fulcrum at O N, and arranged by a pin-and-slot joint P Q to depress a bar B, projecting down through the car-platform E.

In Fig. 3 the end of the vertical bar B is shown connecting by means of a cross-pin M with an arm G beneath the truck. This arm turns on a pin I, which is fixed in two blocks H H, securely attached to the bottom of the truck. A wheel-box J is attached to the arm G by means of a pin S, which allows the box a free revolving motion beneath the arm. The box J carries a wheel L, flanged to engage with a guide-rail on the ground.

F F are springs which draw the arm G toward the car.

R R are pins to limit the turning motion of the wheel-box J.

On the car-platform, in Figs. 4 and 5, C is a revolving arm governed by a spring D, so as to keep a normal position in line with the lever A. It is beveled at the end where it engages with the lever A, and A is correspondingly beveled also, so that when depressed suddenly A forces the arm C aside and takes its required position, C immediately snapping back and being superimposed holds the lever down securely. A blow with the foot upon the other end of the arm C will release the lever and allow the apparatus to regain its normal position.

Fig. 7 shows a stationary guide-rail U laid between the rails of the track and following the curve of the switch.

On approaching a switch the motorman, driver, or conductor of the car depresses the lever A with his foot till it catches beneath the catch C. The guide-wheel L has now engaged with the guide-rail U and guides the car from the main track onto the switch. A blow with the foot upon the free end of the arm C will then release the lever A, the springs F F immediately placing the apparatus in its normal position. The switch-rails, which are stationary, are so placed that if the guide-wheel is not connected with the guide-rail the car will continue to travel along the main track, a cam X on the inner edge of one of the rails of the track insuring this in every case by throwing the approaching car entirely clear of the ends of the switch-rails.

What I claim as my invention, and desire to secure by Letters Patent, is—

A switch-operating apparatus consisting of a lever fulcrumed on a car-platform, a rotary catch mounted on the platform adjacent to the end of the lever, a spring attached to said catch and holding it normally in position to lock the said lever, an arm depending from said lever, a second lever fulcrumed beneath the car and attached to the said depending arm, a bracket swiveled in said second lever, and a flanged wheel journaled in said bracket and adapted to engage a guide-flange between the track-rails.

Kingston, Ontario, March 8, 1897.

HERRICK HEWITT ROCHE.

In presence of—
WM. H. SMYTHE,
HERBERT IRA LYON.