

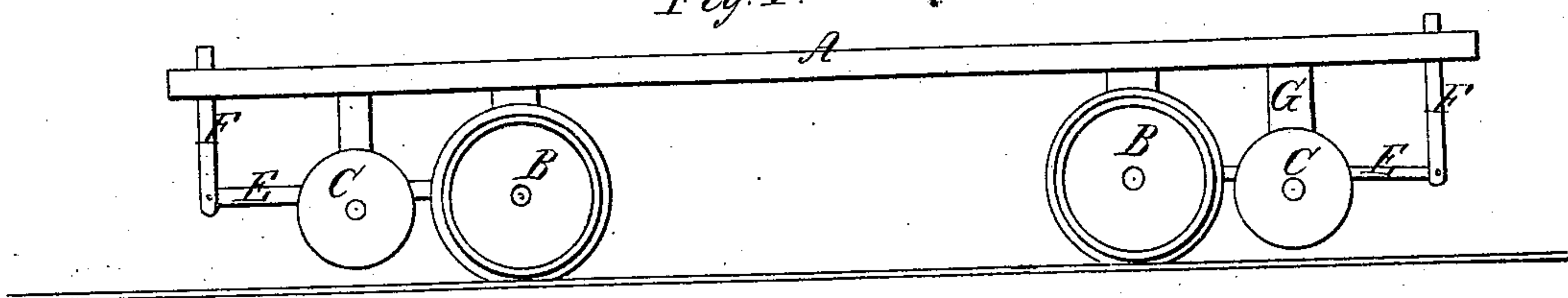
*J. S. Reid,*

*Railroad Switch,*

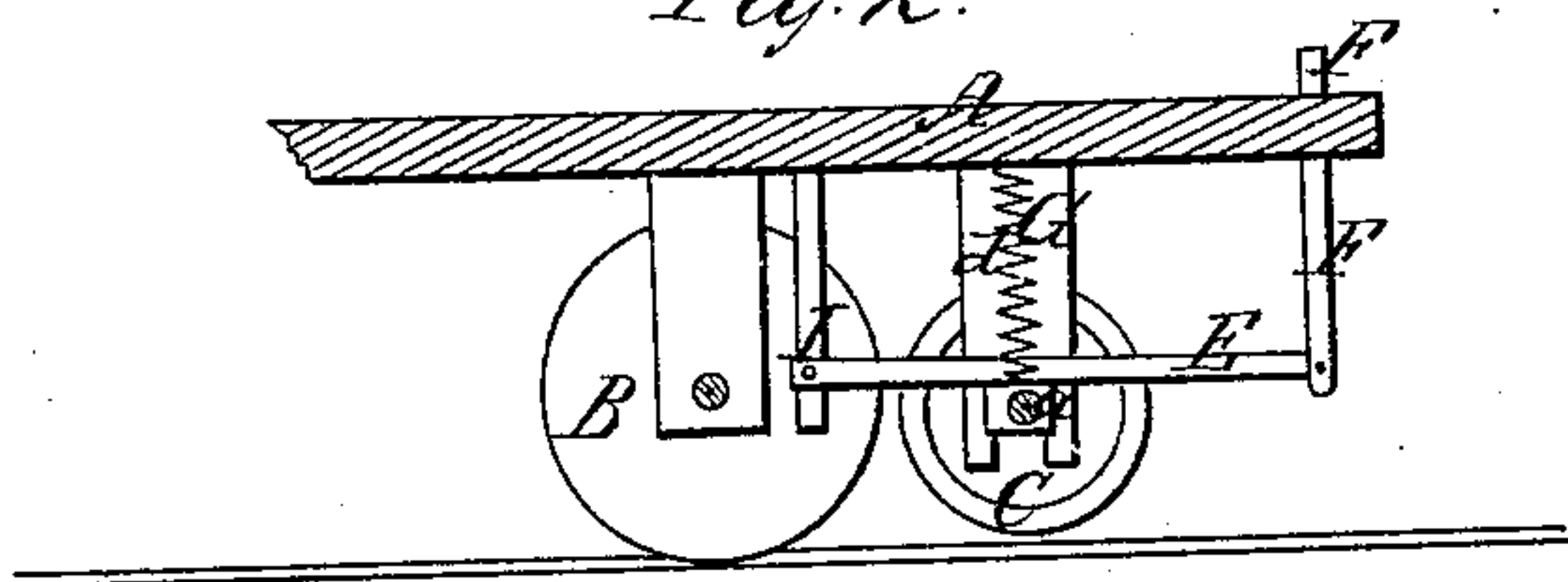
*N<sup>o</sup> 48,978,*

*Patented July 25, 1865.*

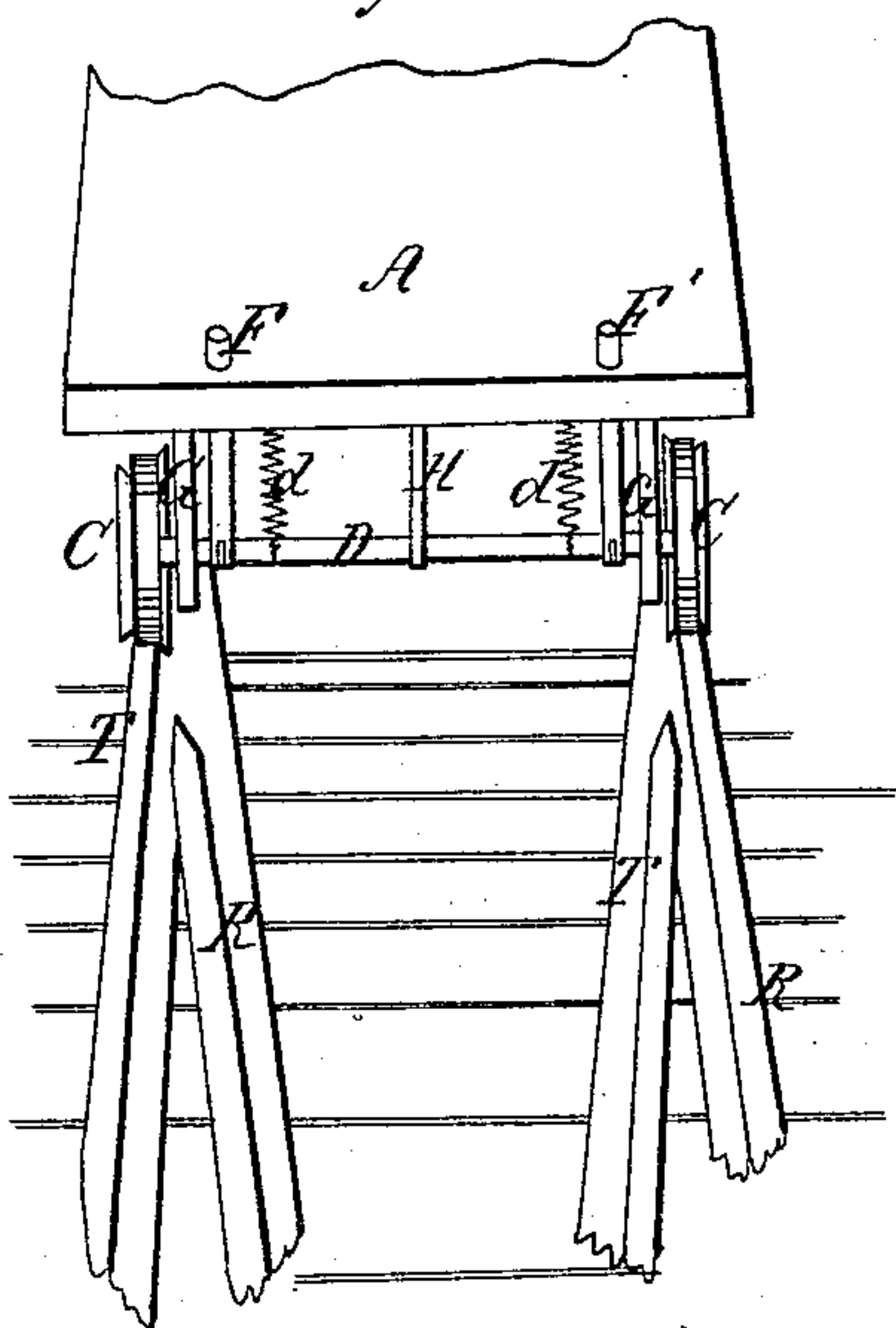
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

JOHN S. REID, OF MUNCIE, INDIANA.

## IMPROVEMENT IN MODE OF SWITCHING STREET-CARS

Specification forming part of Letters Patent No. 48,978, dated July 25, 1865.

*To all whom it may concern:*

Be it known that I, JOHN S. REID, of Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Improvement in Switching Street-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

The nature of my said invention consists in the application or employment of a novel device upon the cars, which can readily be operated by the driver, whereby the cars may be easily and infallibly switched from one track to another without the employment of the ordinary movable rail or frog, and thereby obviating the necessity of the driver, conductor, or other persons getting off at each switch for that purpose, as hereinafter more fully and at large set forth and explained.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a side view of my invention; Fig. 2, an interior side view of the same, a longitudinal section being taken through the car; and Fig 3 is a front or end view seen in perspective, showing also a view of the converging tracks.

Similar letters of reference in the different figures denote the same parts of my invention.

A represents the floor or bottom of the car, B B being the ordinary truck-wheels, upon which the car is supported, having a flange upon the inner side thereof to prevent the car from running off the track.

C C represent a pair of wheels of a suitable size, arranged just in front of the car-wheels, substantially as shown, and provided with an exterior flange, as shown. The said wheels C are so arranged as to lie above the track when not in use, but when operated as hereinafter described they lie upon and in contact with the track, the flange lying against the outer side thereof. The said wheels are arranged upon the shaft D, having its bearings in an adjustable box or boxes, (marked *a*,) which have a vertical reciprocating motion in the grooves or slots in the standards G, as shown and hereinafter described. Said shaft D is

supported at its center by the post or rod H, and toward each end by the springs *d d*, the upper ends of which are attached to the bottom of the car in any suitable manner.

E represents a lever, having its fulcrum at I, and resting upon or close above the shaft D, its front end being connected with the vertical post or arm F, which passes up through the platform upon which the driver stands a short distance, so that he may readily place his foot upon one or the other of said posts F as the occasion may require.

T T represent the rails of the main track, and R R the rails of the branch track, the end of the terminating rail of each track being fixed and stationary, substantially as represented in Fig. 3.

Having described the construction of my invention, I will proceed to describe its operation.

As the car is approaching the switch, as seen in Fig. 3, if it is desired to continue along the main track T T, the driver places one foot upon the top of the arm F and presses it down, whereupon the lever E forces down the shaft D, overcoming the tension of the spring *d*, and brings the wheel C down upon the rail, and the flange of said wheel C lying against the outside of the rail compels the car to move along upon said track T, as desired. If, on the other hand, it be desired to run the car upon the branch track R R, the driver presses down the arm F', upon the opposite side of the car, thereby forcing the corresponding wheel C down upon the rail R, when the action of the flange, as aforesaid, will in like manner switch the car off upon the said branch track R R.

By placing the herein-mentioned invention at each end of the car, the same may with equal facility be run in either direction.

The wheels C may be fixed upon the shaft D or made to revolve upon the same, as preferred, or each wheel may be attached to or arranged upon a separate shaft, and the adjustment of the said wheels may be effected in any appropriate manner.

It will be observed that the essential feature in my invention consists in shifting the car from one track to another by pressure upon the exterior side of the track, and this may obviously be applied by means of a flange upon an adjustable wheel, as herein shown, or by forcing a lever down upon the outside of the



track and providing the same with a friction-wheel to roll against the rail, or in any other suitable manner.

Although I consider my invention as especially adapted to street-cars, still it may be applied equally as well upon railroad-trains, upon the locomotive or rear car of the train, or both, as may be desired.

Having described the nature, construction, and operation of my invention, I will now specify what I claim and desire to secure by Letters Patent:

1. Shifting or switching cars from one track to another by pressure upon the outside of the rail or track, substantially as herein specified.

2. The employment of the adjustable wheels C C, provided with exterior flanges, arranged and operating substantially as and for the purposes shown and set forth.

3. The combination of said wheels C C, the shaft D, and springs *d d*, arranged and operating as and for the purposes described.

4. The combination of the wheels C C, axle D, springs *d d*, lever E, and arm F, arranged and operating substantially as shown and described.

JOHN S. REID.

Witnesses:

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