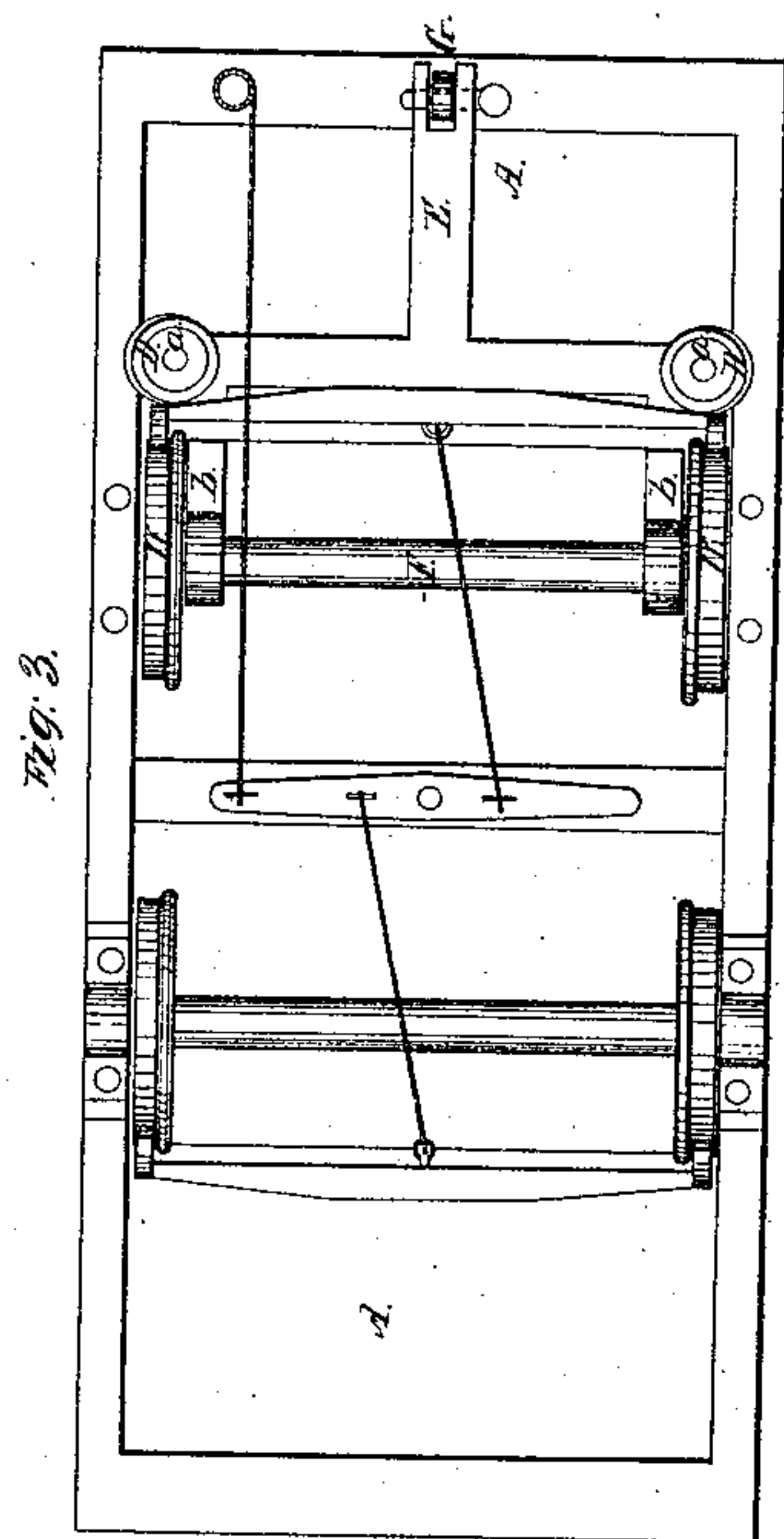
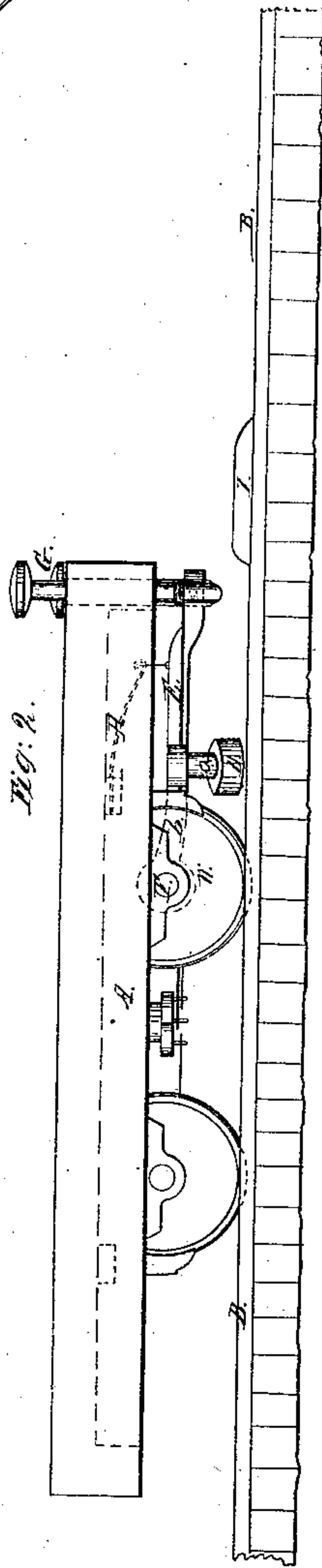
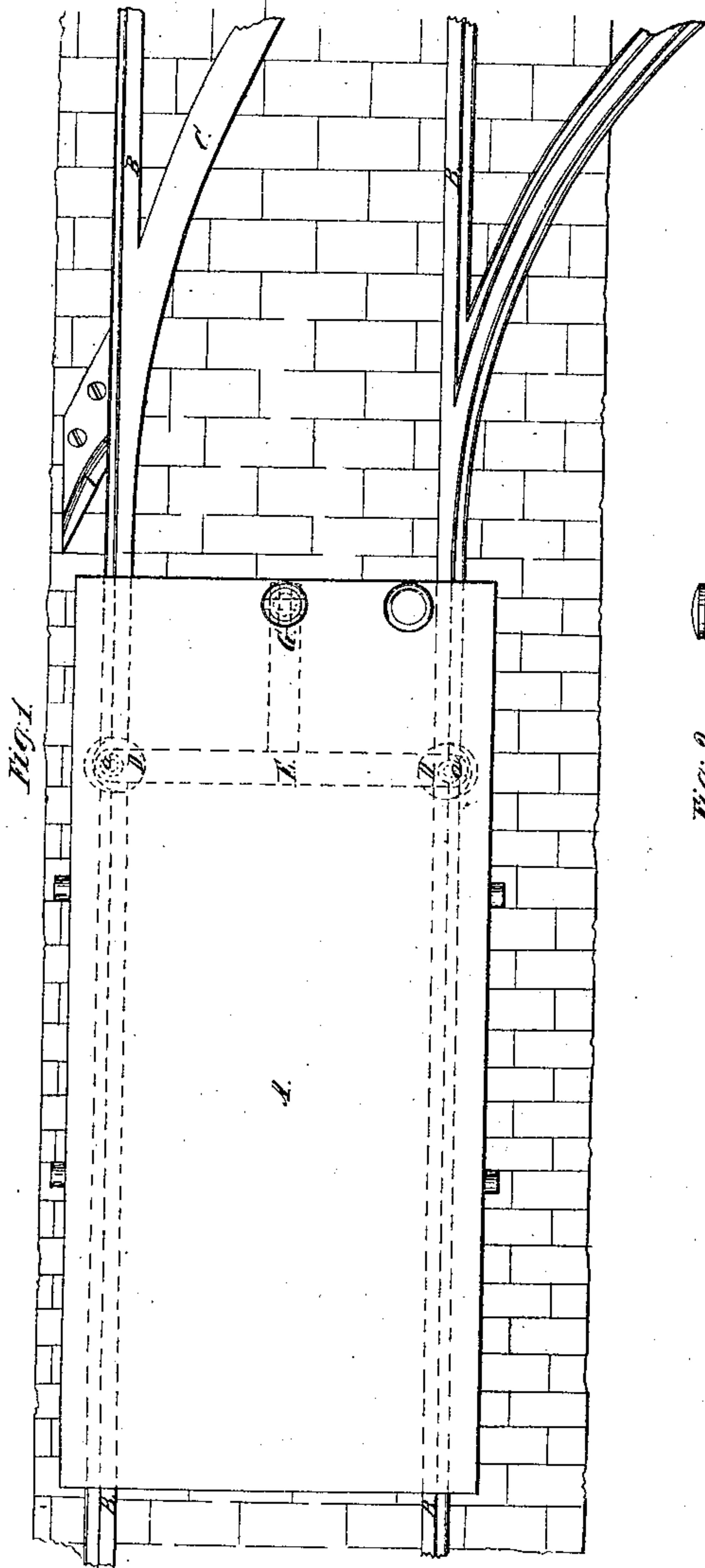


W. I. Burt.
Railroad Switch.

Nº 36,137.

Patented Aug. 12, 1862.



Witness:
J. D. Sampson
C. D. Hale

Inventor:
W. I. Burt

UNITED STATES PATENT OFFICE.

WILLIAM L. BURT, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN STREET-RAILWAY CARRIAGES.

Specification forming part of Letters Patent No. 36,137, dated August 12, 1862.

To all whom it may concern:

Be it known that I, WILLIAM L. BURT, a citizen of the United States, and a resident of Cambridge, in the county of Middlesex and State of Massachusetts, have made a new and useful invention having reference to Street-Railways and their Carriages; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 is a side elevation, of a street-railway with a turn-out and carriage as provided with my invention. Fig. 3 is an under side view of the carriage.

The principal object of my invention is not only to dispense with the switch and switch-tender heretofore usually employed at the junction of a street-railway and a turn-out thereof, but to enable the driver or coachman to produce the deflection of the carriage from the main track to the turn-out in a manner to cause the carriage-wheels to run on the rails of the turn-out. A secondary object of my invention is to enable the driver or any person on the platform of a carriage in motion on a railway to discharge from either of the track-rails any stone or other object which may gather or be thereon.

In the drawings, A denotes a railway-carriage as provided with wheels and brake apparatus, while B B are the two rails of a railway-track, and C C the turn-out rails.

In carrying out my invention, over each rail, and within a short distance of it, and in front of each of the forward wheels, one of two rollers, D D, is placed. Each of these rollers may have its lower flat surface horizontal, or it may be somewhat inclined to the plane of the track-rails, as shown in the drawings. The roller should be capable of freely revolving in an arm or projection, *a*, extended downward from a lever, E, supported on the front axle, F, as a fulcrum, and by means of two arms, *b b*, which are respectively arranged aside of the inner faces of the two wheels W W, as shown in Fig. 3. The lever-frame should not only be capable of being turned on the axle as a fulcrum, but of being slid a little endwise thereon, or toward and against either of the inner faces of the wheels, and this especially when the two wheels are so applied to the axle as to be capable of running or turn-

ing independently of one another, it being now customary to so make many of the carriages for street-railways, the object of the same being to enable the wheels to freely adjust themselves to the short curves of the turn-outs without sliding thereon.

A foot-rest or pitman, G, is jointed to the front end of the lever-frame, and extends upward through the platform of the carriage and into convenient proximity with the feet of the driver, the same being in order to enable him to depress the lever by the pressure of his foot on the top of the pitman.

A spring, H, suitably applied to the carriage and the lever-frame E, serves to elevate the latter after each depression of it by the driver.

At a convenient or proper position, near to the junction of the outer or the inner rail of the turn-out with the straight rail of the track, there should be arranged a cam or deflector, I, which should project above the rail, and so that the periphery of one of the wheels or rollers D D, at the period when the carriage is to be deflected from the straight track to the turn-out, may be carried into contact with the vertical inner side of the deflector I, which will operate in such manner as to press the carriage laterally and direct its forward wheels from the rails of the main track to and upon those of the turn-out. The height of the deflector I should be such that while the carriage is in motion on the straight track the wheel or roller D may freely pass above and over the deflector, provided such roller is elevated into its highest position by the action of the spring H. Just before the period when it may be desirable to cause the carriage to pass from the straight or main track to and upon the turn-out the driver should plant his foot on the top of the pitman and with force sufficient to so depress it and the lever-frame as to force the deflector-roller D down upon the main-track rail directly beneath it. This having been accomplished, the motion of the carriage will carry the roller against the deflector I, which, acting with the power which may be moving the carriage, will force it to run upon the rails of the turn-out. The lateral pressure, which at the same time will be exerted on the lever-frame, will cause it to be forced against the wheel of the inner turn-out

rail, and to act thereon in a manner to retard its rotary motion, such retardation serving to facilitate the deflection of the carriage from the main track.

By having the two deflecting rollers or wheels arranged in front of the carriage-wheels, in manner as described, they may be employed to remove an obstruction or obstructions from the rails. To accomplish this they need only be forced down upon the rails, or close enough to them to be carried in contact with such obstruction or obstructions.

It is advisable to have two of the deflecting rollers or wheels and their operative apparatus at each end of the carriage, in order that, to whichever of the ends the draft-animals may be attached, there may be a means of ef-

fecting the deflection of the carriage from the main track in manner as described.

I claim—

1. The combination and arrangement of the roller or rollers D with the carriage or the truck-frame and its appendages, and also with the deflector I, arranged with the main track and the turn-out, as set forth, the whole being so as to operate substantially as specified.

2. The application of the lever-frame E to the carriage-axle and its wheels in manner so as to be capable of operating with respect to the same, substantially as described.

WM. L. BURT.

Witnesses:

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