No. 753,937. PATENTED MAR. 8, 1904.

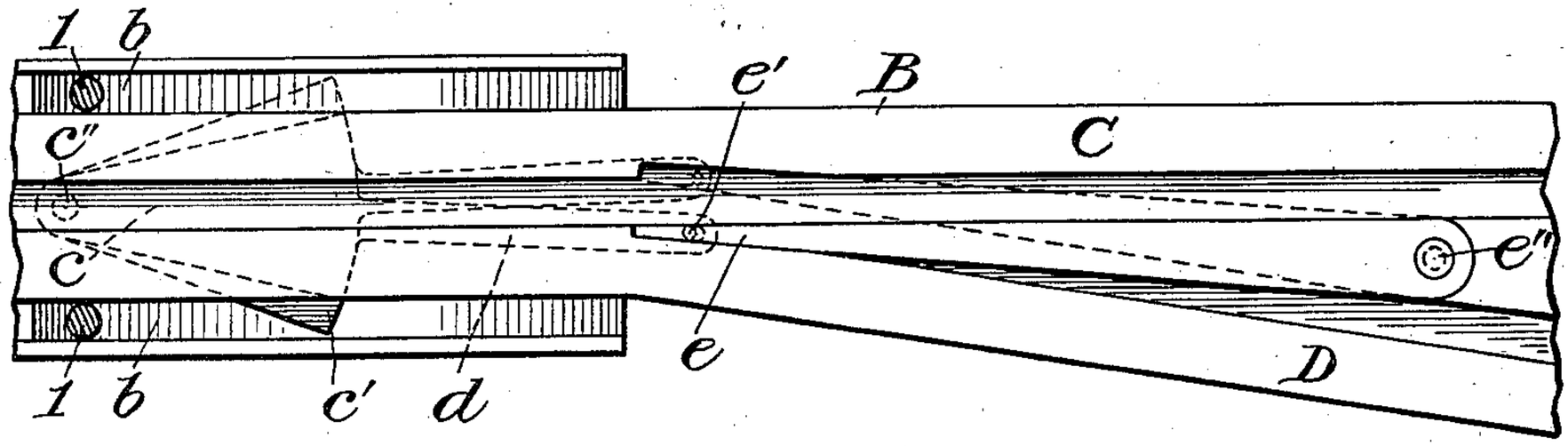
F. UHTBROCK.

RAILWAY SWITCH.

APPLICATION FILED APR. 18, 1903.

NO MODEL.

Fig. 1



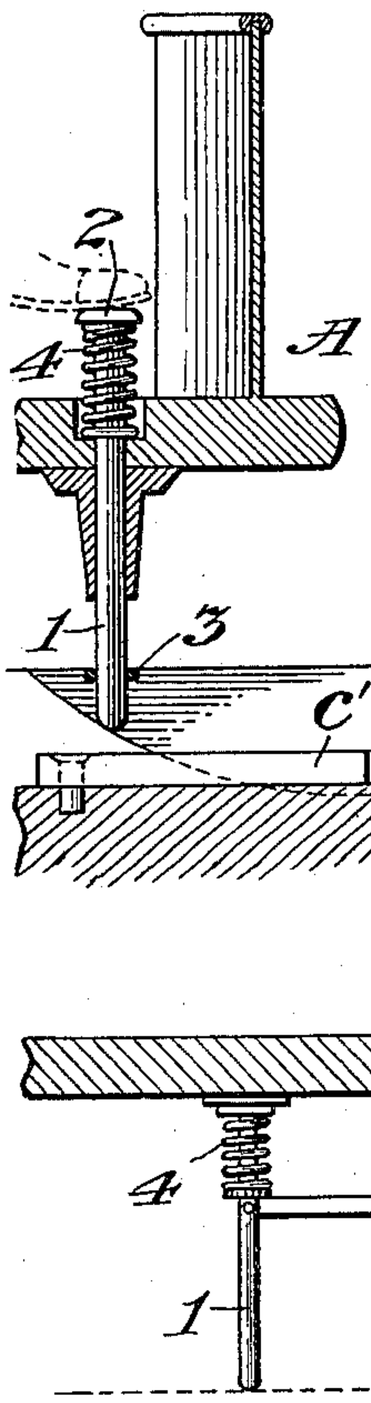
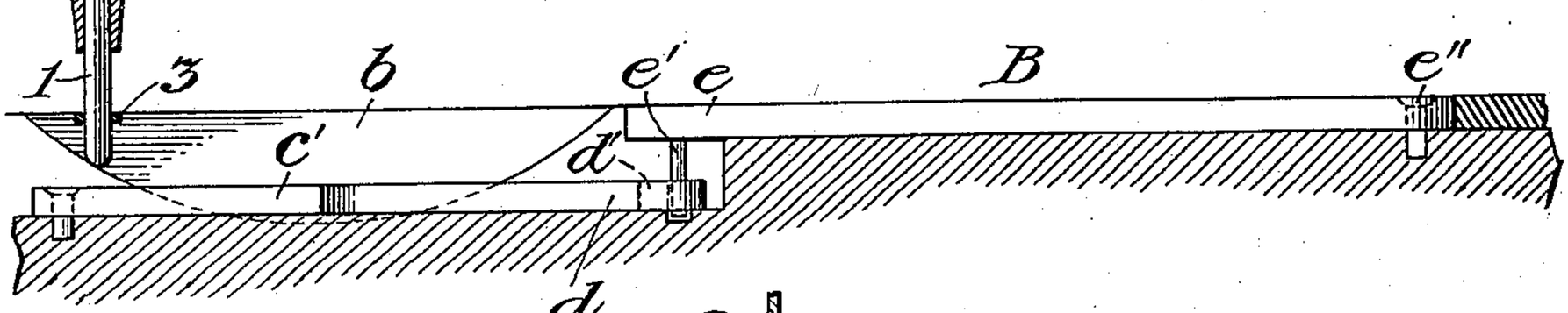


Fig. 2



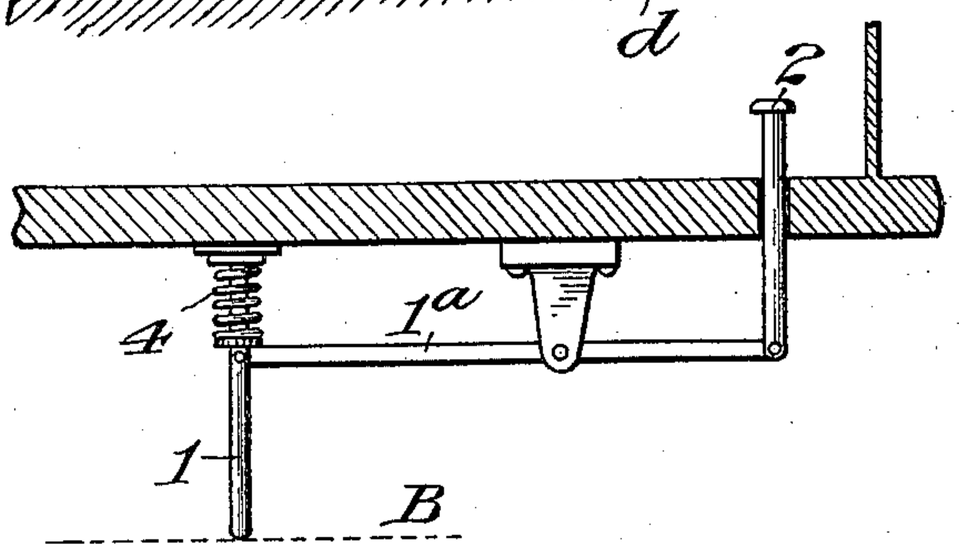


Fig. 3

Witnesses
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By his Attorneys, J. R. Littell

No. 753,937. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

FREDERICK UHTBROCK, OF NEW YORK, N. Y.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 753,937, dated March 8, 1904.

Application filed April 18, 1903. Serial No. 153,184. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK UHTBROCK, a subject of the German Emperor, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

My invention pertains to railway-switches, and more particularly to those which are operated by mechanism.

In a general way the mechanism of my invention may be said to comprise means which are mounted upon a car and adapted to engage at the will of an operator either side of an angularly-formed plate which is pivoted either at or near its apex and which by means of a slotted arm which extends therefrom and is connected with a switch-point moves the latter in a predetermined direction in order to shunt the before-mentioned car onto the track on which it may be intended to run.

My invention, as thus briefly described, involves the use of simple elements, which being but few in number and connected and operated by direct and simple means form a mechanical device of which simplicity is a marked and pronounced characteristic.

My invention is designed for use in positions where complex and intricate mechanisms, such as some which have heretofore been designed for a similar purpose, are apt to become disorganized and fail of their purposed operation; and it may therefore be said that the object of my invention is to provide a railway-switch which shall be simple in form, reliable in operation, and sufficiently durable to withstand the effects of long-continued use under such conditions as attend the latter.

In the drawings, Figure 1 is a plan view of a part of my invention combined with railway-tracks and with a switch-point, which is adapted to shunt rolling-stock to either of said tracks. Fig. 2 is a central vertical longitudinal section of Fig. 1 and of a part of a railway-car on which certain parts of my invention are mounted. Fig. 3 is a plan view of the last-mentioned elements and of a part of a car on which they are mounted.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, A designates a car which is mounted upon a railway-track B, which divides at B′ into two separate tracks C and D. On the car A two vertically-reciprocatable tappets 1 1 are mounted. On the upper end of each tappet 1 is fixed a pedal-plate 2. A stop-collar 3, mounted on each tappet 1, limits the upward movement of the latter, and helical springs 4 4, which, respectively, surround each tappet 1 and impinge against the under side of each pedal-plate 2 and against the upper side of the platform of the car, respectively urge the tappets 1 upwardly.

Between the rails of the track B and below the plane of the latter are fixed tappet-guides *b b*, which are properly disposed outwardly of the vertical planes of the tappets 1 to so reinforce the lower ends of the tappets 1 1 as to severally resist pressure which may be applied to their inner sides, respectively, as hereinafter related. Below the common horizontal plane of the tappet-guides *b b* and extending in the same direction therewith a switch-operator *c* is pivoted centrally of said guides *b*. The switch-operator *c*, as shown herein, comprises a triangular plate *c′* and an arm *d*, preferably integral therewith. The base of the angle *c′* lies transversely of the tappet-guides *b*, and a pivot *c″* is located at the apex of the angle of the plate, the form of the latter being modified at said apex, as shown, to permit of such location of the pivot *c″*. The arm *d* projects centrally of the base of the angle of the plate *c′* and in alinement with the pivot *c″* and is slotted at its outer end, and a switch-point *e* engages said arm by means of a stud *e′*, which is fixed in the switch-point *e*, and near the extreme point thereof and passes through the slot *d′* in the arm *d*. The farther end of the switch-point *e* is pivoted, as at *e″*, in a well-known manner.

In the modification shown in Fig. 3 the tappet 1 is operated in a reversed direction to the tappets shown in Fig. 1, being raised by means of a lever 1ª, which is fulcrumed upon the floor of the car A and is operated by

means of a vertical rod 1^b, on which a pedal-plate 2 is fixed. In this form, as will be seen, the operative tappet 1 remains in a depressed position and the inoperative tappet is raised, as stated.

The operation and advantages of my invention will be readily understood and appreciated by those skilled in the art to which it appertains. It being presumed that the car A is on the track B and approaching the switch-point *e*, one of the tappets 1 may be depressed—as, for instance, by a person who is on the car A and who presses upon a pedal-plate 2. The tappet 1, which is depressed, as related, will contact one of the perimetral faces of the switch-operator *c* and being maintained in its proper relative position by means of a tappet-guide *b* will swing the switch-operator *c* and the arm *d* transversely of the track B, and by means of the arm *d* and the stud *e'* the switch-point *e* will be set in position to shunt the car A to either the track C or the track D, according to which tappet 1 has been depressed. It may be noted that if the right-hand tappet 1 be depressed the car A will be shunted to the right-hand track, and if the left-hand tappet 1 be depressed the car A will be shunted to the left-hand track.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In railway-switch-operating mechanism, a switch-point, a switch-operator comprising a triangularly-formed plate with two perimetral faces which are engageable by tappets; and a forwardly-extending arm pivoted to the switch-point, and tappets which are fixed upon a car and are severally engageable with the engageable perimetral faces of the switch-operator, substantially as described.

2. In railway-switch-operating mechanism, a switch-point, a switch-operator which operatively engages the switch-point and has a plate with two perimetral faces which are engageable by tappets; tappets which are fixed upon a car and are severally engageable with the engageable perimetral faces of the switch-operator; and tappet-guides having curved bottoms and sides fixed parallelly of the switch, substantially as described.

3. In railway-switch-operating mechanism, a switch-point, a switch-operator which operatively engages the switch-point and has a plate with two perimetral faces which are engageable by tappets; tappets which are fixed upon a car and are severally engageable with the engageable perimetral faces of the switch-operator; and tappet-guides having curved bottoms and sides fixed parallelly of the switch, substantially as described.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

FREDERICK UHTBROCK.

Witnesses:
J. C. PYBAS,
J. M. HOCTOR.