

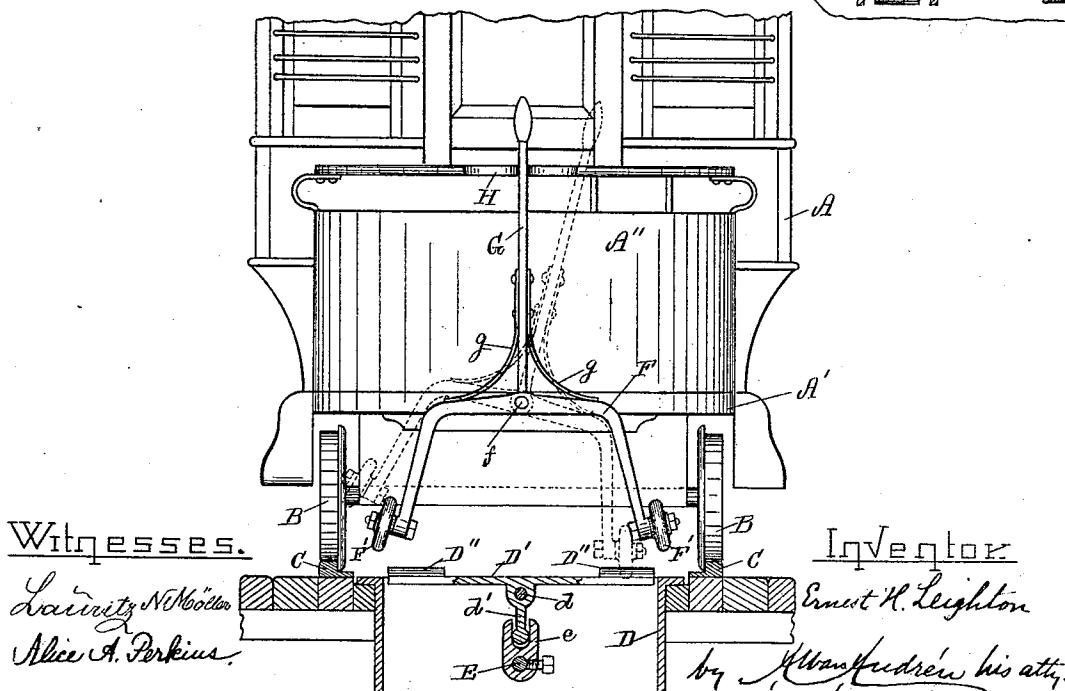
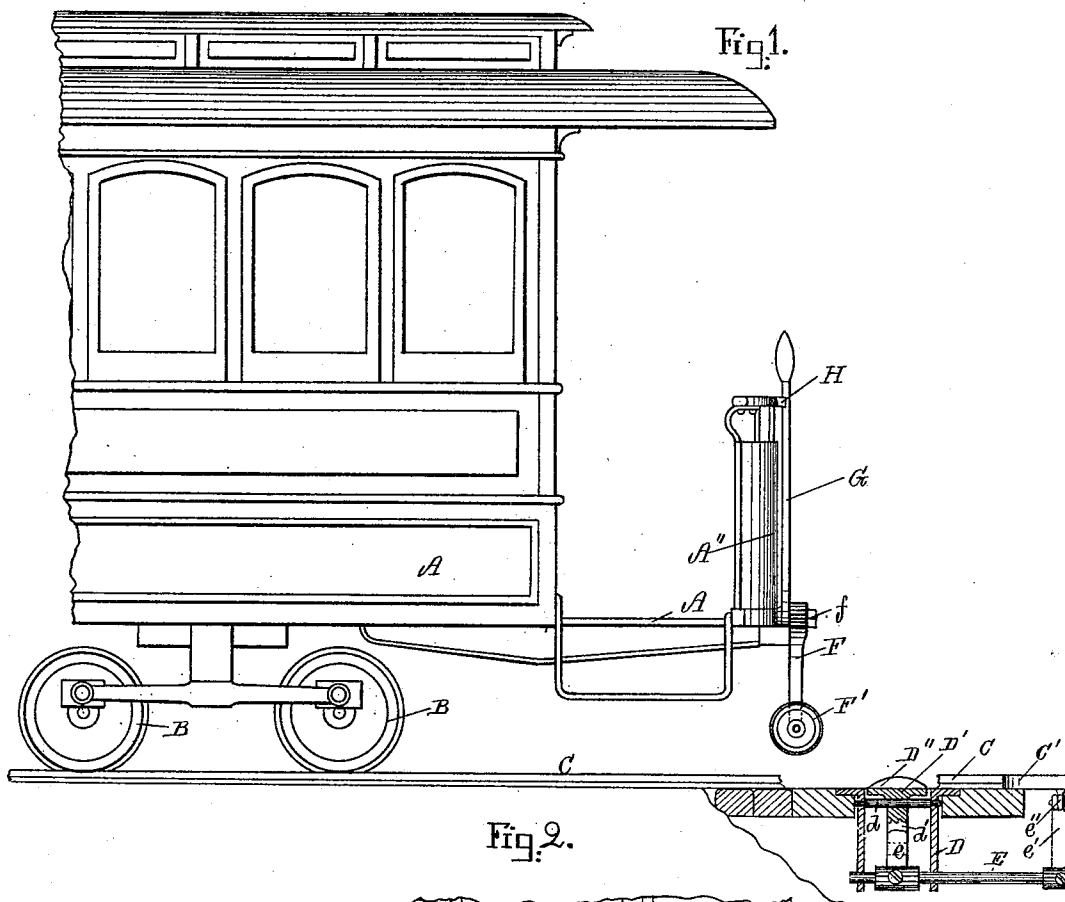
(No Model.)

2 Sheets—Sheet 1.

E. H. LEIGHTON.
RAILWAY SWITCH.

No. 515,122.

Patented Feb. 20, 1894.



Witnesses.

Lavinia N. Wood
Alice A. Perkins.

Inventor

Ernest H. Leighton

by *Wm. Andrew* his atty.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

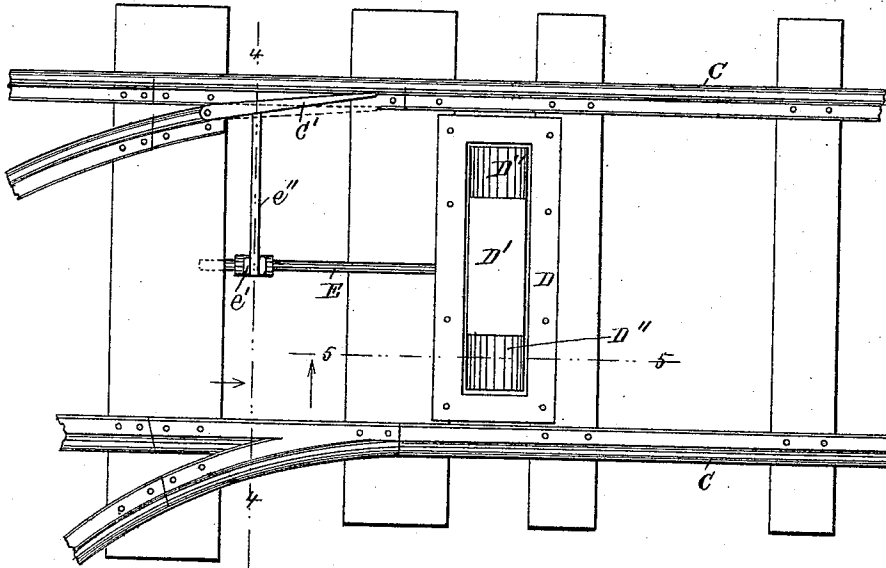


Fig. 4.

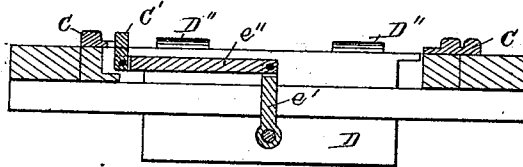
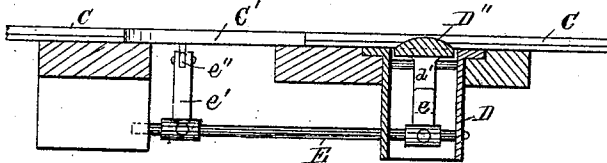


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

ERNEST H. LEIGHTON, OF BOSTON, MASSACHUSETTS.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 515,122, dated February 20, 1894.

Application filed May 19, 1893. Serial No. 474,751. (No model.)

To all whom it may concern:

Be it known that I, ERNEST H. LEIGHTON, a citizen of the United States, and a resident of East Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Railway-Switches, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in railway switch devices particularly adapted for use on horse cars, electric or other motor propelled cars for the purpose of enabling the motor man or driver to set the switch from the car without leaving it, and without the need of the services of switch men or switch tenders as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of a portion of a car, showing the track partly in section. Fig. 2 represents an end elevation of the car, the track being shown in section. Fig. 3 represents a top plan of the track. Fig. 4 represents a cross section of the track on the line 4—4 shown in Fig. 3; and Fig. 5 represents a section on the line 5—5 also shown in Fig. 3.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings Figs. 1 and 2, A represents a car body on which A' is one of the end platforms and A'' the dasher as usual.

B, B, represent the wheels.

C, C, represent the rails and C' (Fig. 3) represents the movable tongue or switch point for switching the car from one track to another as is usual in switch devices.

Between the rails C, C, at a suitable distance from the movable switch or switch point is located a hollow metal frame D the upper face of which is located even with or on a level with the track or pavement and in such frame is hung at d, a rock lever D', having preferably curved projections D'', D'' on its upper side at or near its two opposite ends as shown for a purpose as will hereinafter be described.

Midway on the rock lever D' is a downwardly connecting arm d', which is connected in a suitable manner to the movable switch or switch point C' and in the drawings I have

shown for this purpose, said arm d' connected to a lever e on a shaft E journaled in suitable bearings and having secured to its other end a lever e' connected by means of a link e'' to the movable switch or switch point C' and it will thus be seen that said switch or switch point will be actuated to and from the rail, by rocking the track lever D'. For the purpose of actuating such track lever from the car, I pivot to the latter, at one or both of its ends, a lever F which is loosely journaled or hung on a pin or bolt f attached to the car frame or platform, said lever having loosely journaled on its two opposite ends, a pair of rollers or wheels F', F', adapted to be brought in contact with either of the ends of the track lever D' according to the track onto which the car is to be switched. On said pin or bolt f is loosely pivoted the hand lever G to the sides of which are attached springs g, g, bearing against the lever F on opposite sides of its fulcrum f, which springs serve to hold said lever F in its normal level position when the hand-lever G is held in its midway vertical position as shown in Figs. 1 and 2.

It is a notched locking segment preferably secured to the front of the dasher A'' and adapted to hold the lever G in its midway inoperative position shown in full lines in Fig. 2 or in one of its operative positions shown in dotted lines in said Fig. 2.

The operation is as follows: If the driver or motor man desires to switch the car to the right or left all that is necessary for him to do is to turn the lever G to the right or left as the case may be when one of the rollers F' will be held by the yielding pressure of one of the springs g against the track and as it comes to the rock lever D' it will cause the latter to be rocked on its fulcrum by the action of said spring g which for the time being is under tension thus causing the switch or switch point to be set accordingly. After passing the switch the driver or motorman returns and locks the hand lever G in its midway position as shown in full lines in Fig. 2.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

In a railway switch device, movable projections in the track and connections to the

switch or switch point, combined with a rock lever pivoted to the car and having rollers at its ends and a pivoted lever adapted to be actuated by the driver or motorman, and springs arranged between said levers substantially as set forth.

In testimony whereof I have signed my

name to this specification, in the presence of two subscribing witnesses, on this 15th day of May, A. D. 1893.

ERNEST H. LEIGHTON.

Witnesses:

ALBAN ANDRÉN,

LAURITZ N. MÖLLER.