(No Model.)

H. W. LIBBEY.

AUTOMATIC SWITCH FOR STREET RAILROADS.

No. 419,052. Patented Jan. 7, 1890.

Fig. 1.

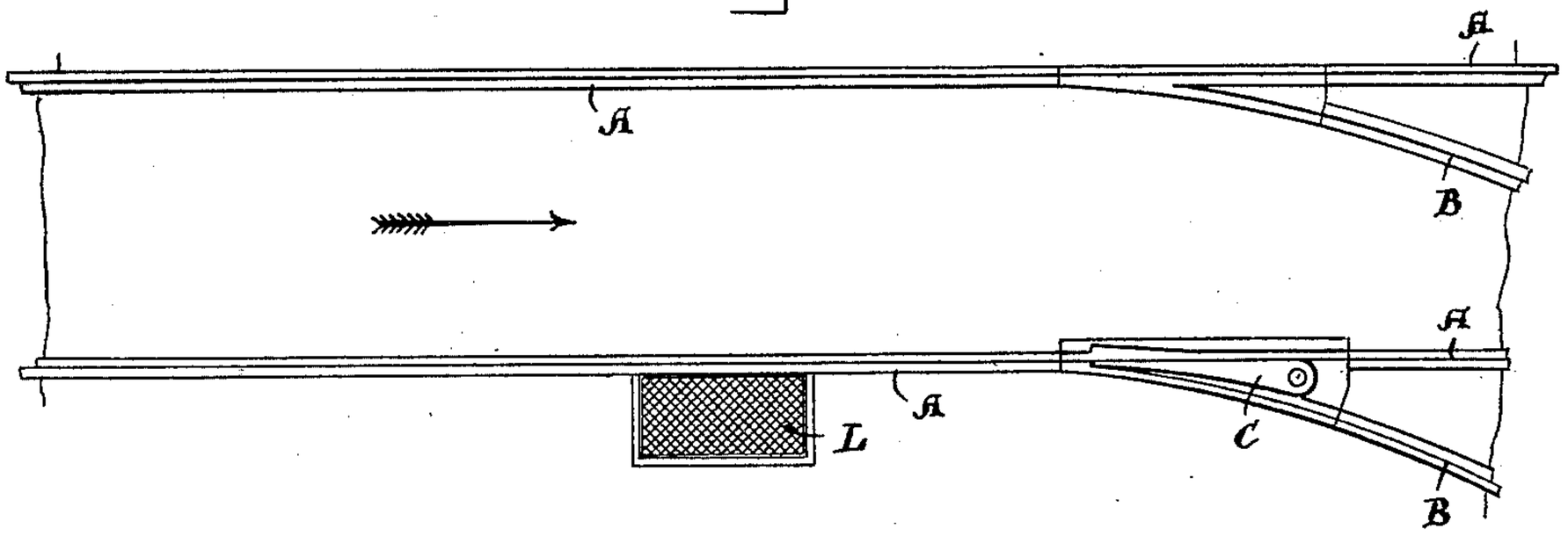


Fig. 2.

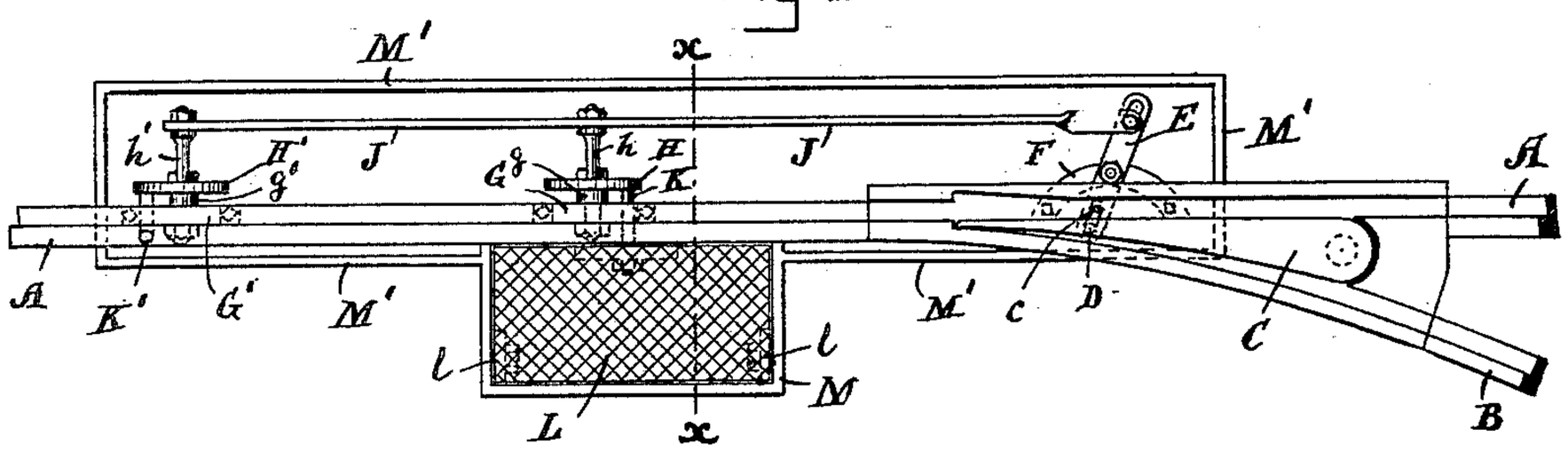


Fig. 3.

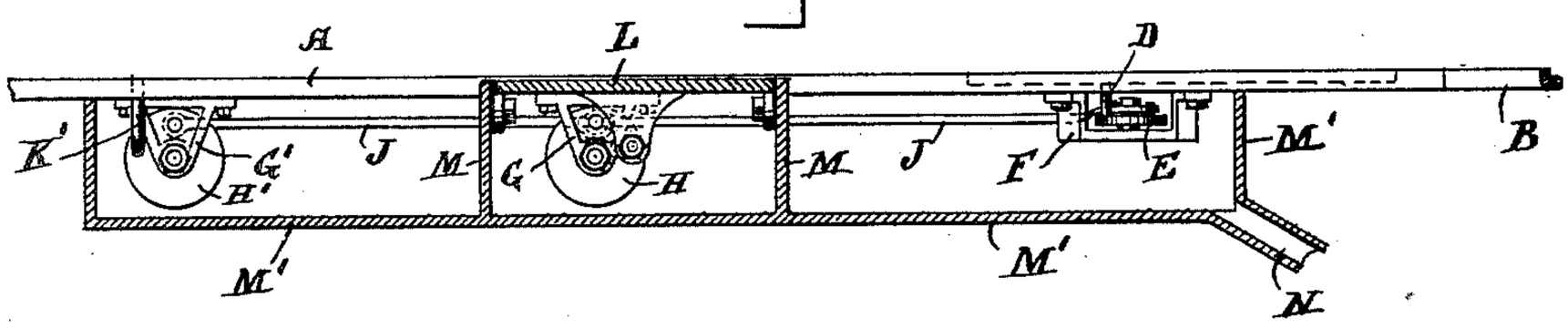
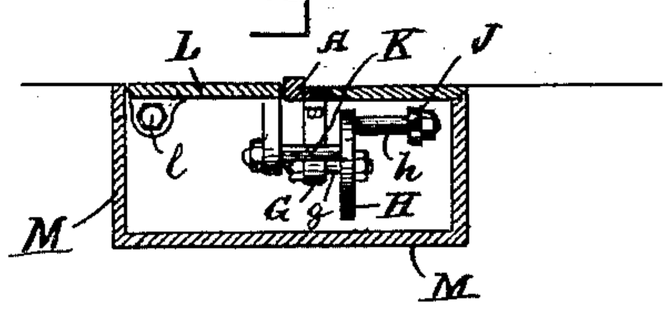


Fig. 4.



Witnesses.
J. George Peltzer
Claudius B. Moulton

Inventor.
Hosea W. Libbey
by Edwin Blanta.
attorney.

UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

AUTOMATIC SWITCH FOR STREET-RAILROADS.

SPECIFICATION forming part of Letters Patent No. 419,052, dated January 7, 1890.

Application filed April 5, 1889. Serial No. 306,082. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Automatic Switches for Street-Railroads, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to produce an automatic switch which will be set for the cars to travel on the main line by the wheels of the car, and set in the reverse direction, so as to run the cars onto the branch line, by means of the horse treading upon a tilting platform, so that the driver of the main-line cars has not to take any notice of the switch; but the driver of the car that has to branch off must cause his horse to tread upon the tilting platform; and the invention consists in certain details of construction hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a plan or top view of a car-track and switch embodying my invention. Fig. 2 is a plan or top view of one of the rails and switch, with the operating mechanism, embodying my invention. Fig. 3 is a side view of the operating mechanism, the casing and tilting platform being shown in section. Fig. 4 is a transverse section taken on line *x x* of Fig. 2, looking to the left.

A A represent the rails of the main-line track, B B the rails of the branch line, and C the switch-tongue, all of which may be of ordinary construction. To the under side of the tongue C is secured a bar D, which extends down through a slot *c* (see Fig. 2) in the switch-plate. The lower end of the bar D is connected to a lever E, fulcrumed at about its center to a bracket F, secured to the under side of the switch-plate.

To the under side of the rail A, in front of the switch, are secured at suitable intervals brackets G G′, provided, respectively, with studs or short shafts *g g′*, upon which are mounted disks H H′, and said disks are provided with arms *h h′*, respectively.

J is a bar or rod connected to the two arms *h h′* and to the outer end of the lever E. Each end of the lever E is provided with a slot, in one of which the pin D works, and in the other the bolt connecting the bar J.

To the disk H′ is secured a presser-bar K′, that extends up through the tread of the rail, and to the disk H is secured a similar bar K, which at its other end is connected to the tilting platform L, which is pivoted at *l* to a metal box or casing M, that may be separate from or cast in one with the casing M′, that incloses the whole of the mechanism, and which is provided with a pipe N, leading to a drain, so as to carry off any water that may accumulate therein.

The operation is as follows: Supposing a car to be approaching the switch in the direction of the arrow in Fig. 1, and it is intended to pass along the main line, the wheels, passing over the presser-bar K′, will depress it and cause the switch to be thrown to allow the car to travel on the main line, the driver not having anything to do with the switch; but if the car is intended to pass onto the branch, then the driver has to cause one of the horses to step upon the tilting platform L, which will throw the switch for the car to pass onto the branch line.

Of course the distance between the presser-bar K′ and the platform L must be sufficient to allow for the length of the car and horses.

It will be seen that by this construction the switch is set for the cars to travel on the main line by the action of the wheels of the car and for the branch line by the horse stepping on the tilting platform, or the action might of course be reversed.

What I claim as my invention is—

1. The tongue C, lever E, rod J, disk H′, and presser-bar K′, in combination with the disk H, bar K, and tilting platform L, whereby the tongue will be thrown in one direction by the depression of the bar K′ and in the opposite direction by the depression of the platform L, substantially as shown and described.

2. The combination of the switch-tongue C, lever E, bar J, arm *h*, disk H, bar K, and tilting platform L, substantially as and for the purposes 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 December, A. D. 1888.

HOSEA W. LIBBEY.

Witnesses:
CHAS. STEERE,
EDWIN PLANTA.