

(No Model.)

2 Sheets—Sheet 1.

H. DIXON, Jr.  
RAILWAY SWITCH.

No. 597,962.

Patented Jan. 25, 1898.

Fig. 1.

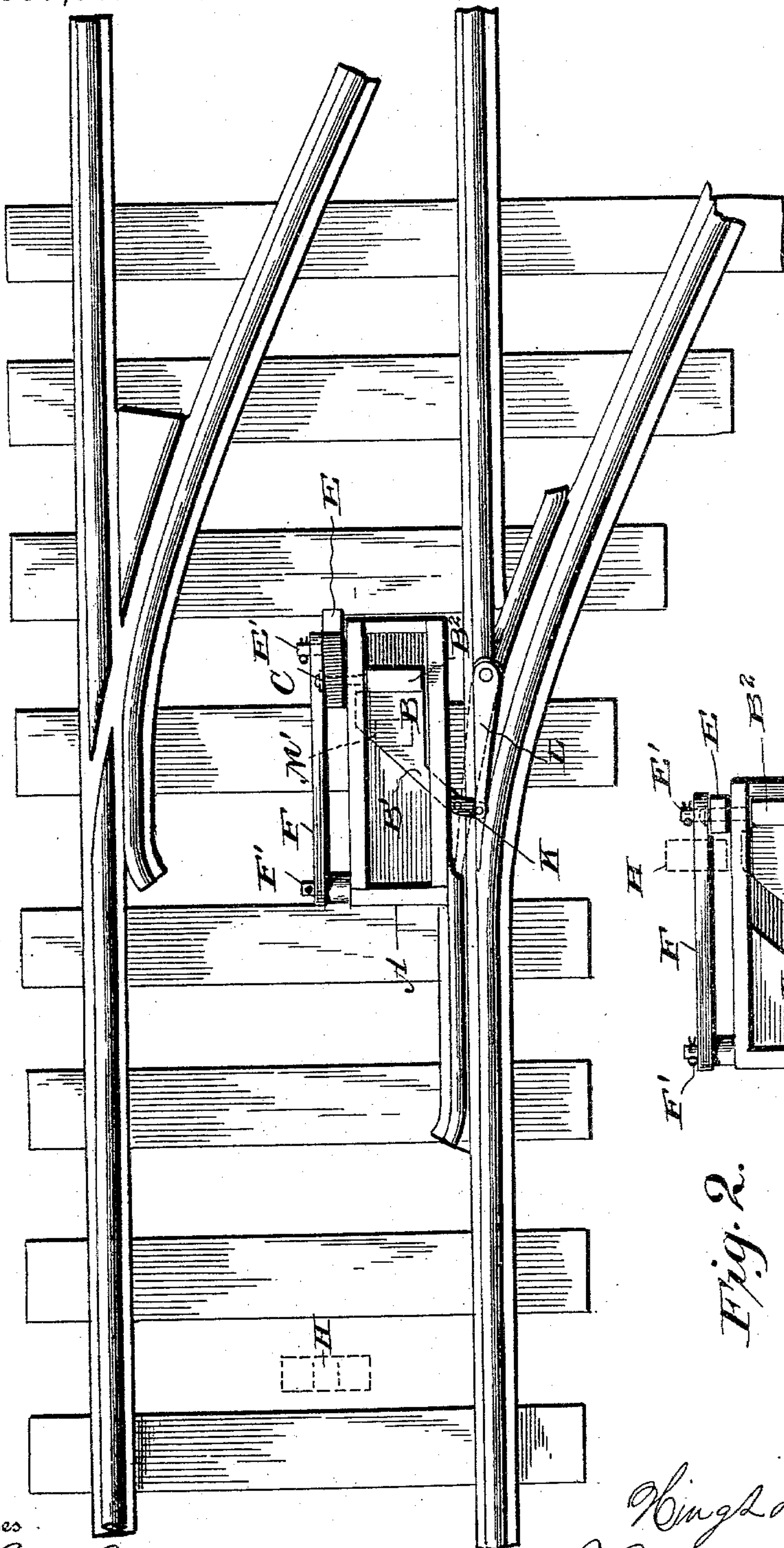
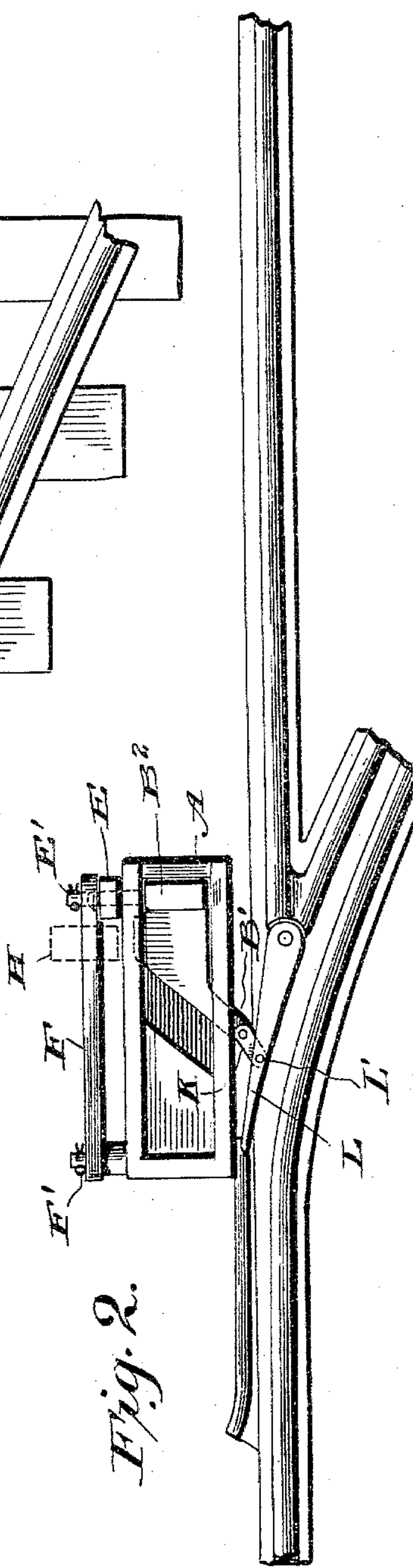


Fig. 2.



Witnesses

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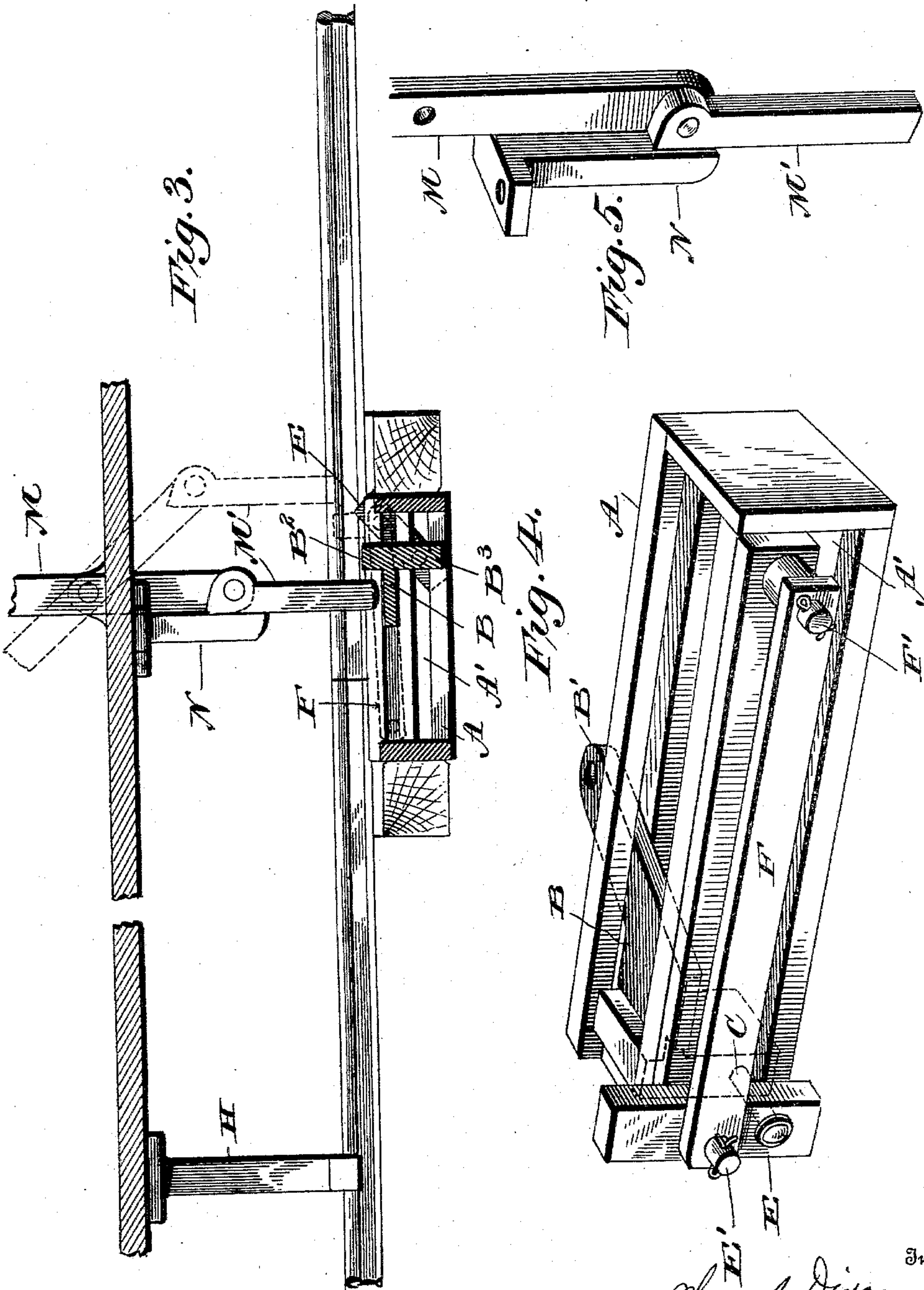
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# UNITED STATES PATENT OFFICE.

HUGH DIXON, JR., OF KEARNEY, NEW JERSEY.

## RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 597,962, dated January 25, 1898.

Application filed November 6, 1897. Serial No. 657,655. (No model.)

*To all whom it may concern:*

Be it known that I, HUGH DIXON, Jr., a citizen of the United States, residing at Kearney, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Railway-Switches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in switches and means for operating the same, and especially to the provision of a lever operated on the platform of a car whereby a switch may be operated while the car is in motion, and the additional provision of an attachment secured at the opposite end of the car whereby the switch may be closed again after the car has passed onto a siding.

More specifically the invention resides in the provision of a sliding plate held within a suitable box seated in the road-bed between the rails, which sliding plate as it is moved backward and forward opens or closes a frog, and by the provision of a tilting lever connected to the said plate the switch may be closed by means of a trip-lever secured to the under surface of the platform of the car.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

I clearly illustrate my invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a plan view of my improved switch and the plate for operating the same, the frog being shown as closed. Fig. 2 is a detail view showing the frog open. Fig. 3 is a side elevation of the operating-lever pivoted to the platform of a car and also a sectional view of the frog-operating mechanism. Fig. 4 is a perspective view of the box containing

the frog-operating mechanism. Fig. 5 is an enlarged detail view of the operating-lever.

Reference being now had to the details of the drawings by letter, A designates a box of any suitable construction, which is seated between the rails in the manner shown and has longitudinally movable therein the plate B, which has its one end tapered away, as at B', and a lug or raised portion B<sup>2</sup> on the opposite end. This plate has a lug on its under surface B<sup>3</sup>, which carries a pin C, which is guided in a longitudinal slot A' in the box. Pivoted to the outer end of the said pin C is the lever E, the upper end of which is adapted to be tilted so as to extend slightly above the upper surface of the said box and in the path of the tripping mechanism, which is carried by the car. This lever E carries a pin E', to which is pivoted one end of the lever F, the other end of the said lever being pivoted at F to the side of the box, as illustrated in the drawings. This lever F is provided to allow the beveled plate B to move longitudinally (for the purpose which will hereinafter appear) as a trip member H, which is secured to the under surface of the car, trips against the upper end of the said lever as the car passes over the switch-operating mechanism when the said lever is held in a substantially vertical position. The said lever, having the two pivotal points arranged in the manner described, will allow of this movement described, which is imparted to the said beveled plate. To the outer beveled end of the said plate B is pivoted a link K, the other end of which link is pivoted to the frog L at L', the frog being pivoted at one end in alignment of one of the rails of the track, as shown.

Pivoted to the platform or any other part of the car is an operating-lever M, pivoted on brackets, as shown, and to the lower end of the said lever is pivoted the link or bar M', which swings freely on its pivotal pin. This swinging bar or link is adapted to play back and forth underneath the platform of the car, and when it is desired to throw the operating-lever into such a position as to trip the switch-operating mechanism the said lever M is drawn to a vertical position, in which position the said swinging link or bar will rest against a stationary post N, secured to the



under surface of the platform of the car, and in this position the said bar M' will strike against the lug on the beveled member of the switch-operating mechanism and cause the switch to be opened. When the lug or upwardly-projecting portion of the said beveled plate strikes the end of the box containing the same, the operating-lever on the car will be thrown back in the position indicated in dotted lines in the drawings and the link or bar, carried at the lower end thereof, will be drawn up against the undersurface of the platform of the car out of the way of obstructions. This tilting or operating the lever and bar carried thereby is caused by means of the bar not being allowed to travel farther in its vertical position after the lug on the said beveled member strikes the end of the box containing the same, and as the said member B reaches its outward limit, which is the end of the box, the joint in the operating mechanism will necessarily break. As the switch is opened on the approach of a car it will be noted that the lever M is raised to a substantially vertical position, so that its upper end will project in the path of the tapering lever secured to the under surface of the platform of the car, and as the rear end of the car carrying said member passes over the switch-operating mechanism the said member will strike the beveled lever M and cause the switch to be closed by means of the reverse movement which is imparted to the beveled plate, to which the frog or switch is connected.

35 When it is desired to utilize my improved

switch-operating mechanism in connection with side-tracks leading in a different direction, slight alterations, such as the reversing of some of the parts of the operating mechanism, may be employed.

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

1. In combination with the box, the beveled plate longitudinally movable therein, a lug on the upper face thereof, the frog and connections between same and the plate, the pin C secured to a lug on the under side of the said plate, the bar F, the pin F' secured to the said box and on which the lever is pivoted, the lever E pivoted to the pin C near its lower end and to the lever F near its middle portion, and a pivoted operating-lever for operating the switch, and a fixed lever for closing same, as set forth.

2. In combination with the plate B and connections with the frog as set forth and mechanism for closing the frog, the lever M pivoted to ears on the platform of the car, the stop N, secured to the under side of the car platform, the swinging link M' pivoted at one end to the lower end of the lever M, all arranged and operated substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HUGH DIXON, JR.

Witnesses:

JAMES S. VEY,

JOHN DIXON.