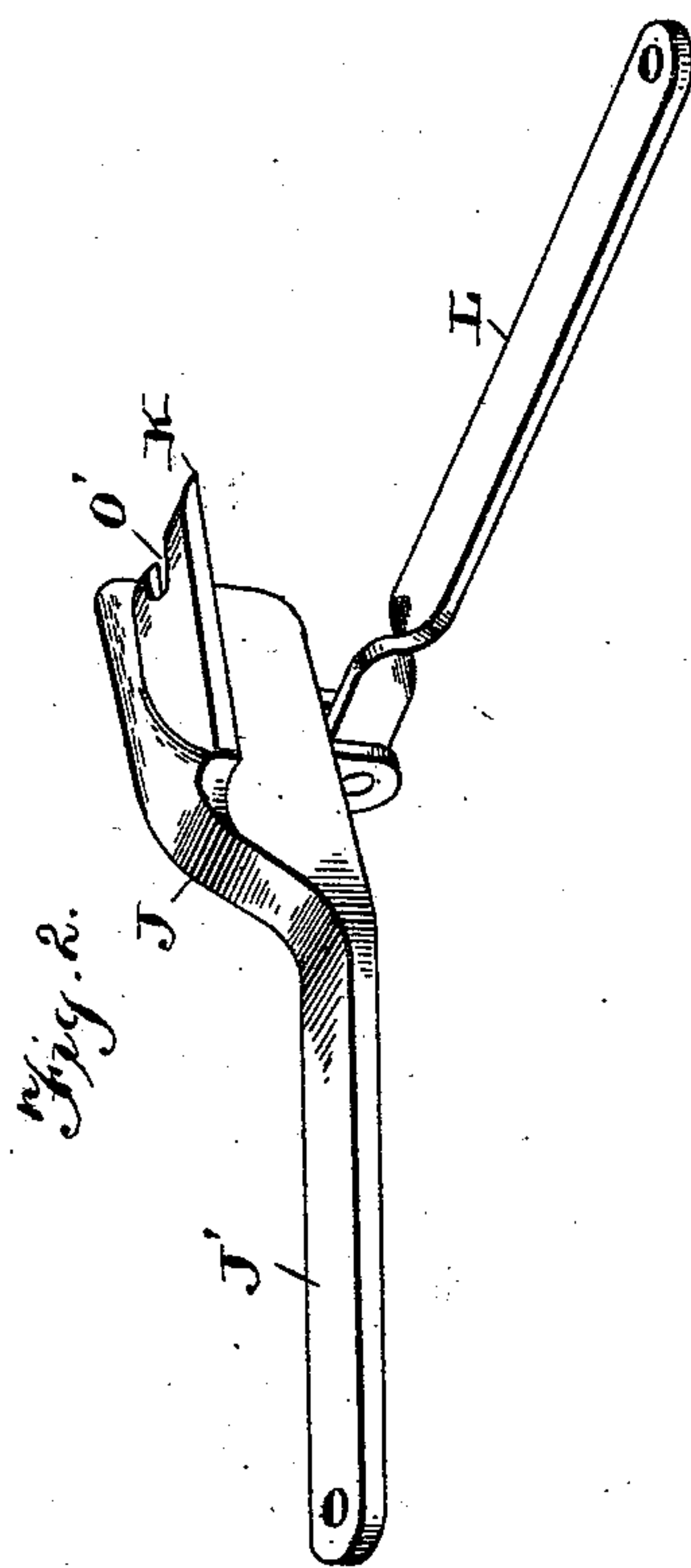
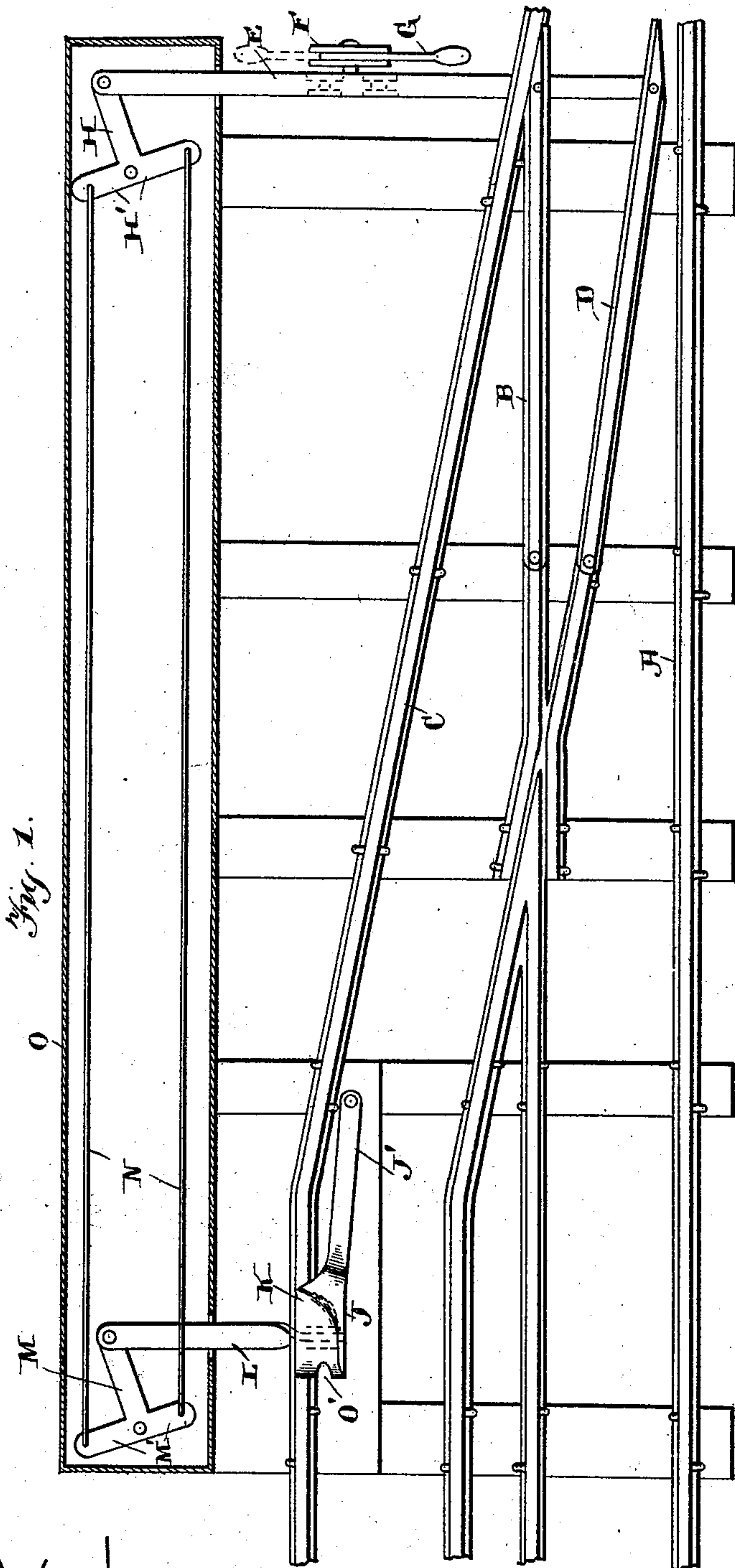


(No Model.)

G. D. WARREN & J. CASEY.
SWITCH ATTACHMENT.

No. 517,783.

Patented Apr. 3, 1894.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GOVERNOR D. WARREN, OF DALLAS, TEXAS, AND JAMES CASEY, OF
COALGATE, INDIAN TERRITORY.

SWITCH ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 517,783, dated April 3, 1894.

Application filed June 26, 1893. Serial No. 478,927. (No model.)

To all whom it may concern:

Be it known that we, GOVERNOR D. WARREN, of Dallas, in the county of Dallas and State of Texas, and JAMES CASEY, of Coalgate, Choctaw Nation, Indian Territory, have
5 invented certain new and useful Improvements in Switch Attachments; and we do hereby declare the following to be a full, clear, and exact description of the invention, such
10 as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in
15 switch attachments, and it consists in the novel features of construction which will be fully described hereinafter and especially pointed out in the claims.

The object of our invention is to provide an
20 improved device for the purpose of preventing cars from running on to the main track from the switch or siding when the latter is closed; and a further object is to operate the said device in conjunction with the switch
25 throwing mechanism in such a way that it will be thrown in and out of an operative position at the required time.

Referring to the accompanying drawings: Figure 1, is a plan view of a main and side
30 track, showing our improved device applied to the latter. Fig. 2, is a detached perspective view of the movable shoe.

A designates the main track; B the movable rail thereof; C the switch or side track
35 and D the side track movable rail. The outer or free ends of rails B and D are pivoted to transverse bar E which extends laterally beneath the switch stand F in which stand is mounted an operating lever G, which may
40 be of any preferred construction having at its lower end a pivotal connection with the said transverse bar. The outer end of the bar is extended beyond the switch stand and is pivotally secured to the angle iron H, as shown.

45 J is a safety shoe or block having arm J' which is pivotally secured to the switch bed, as shown. This safety shoe or block is preferably arranged adjacent the outside rail of the switch and has formed upon its upper
50 side an outwardly projecting flange K, which when the shoe is turned upon its pivot pro-

jects directly over one of the siding rails and directly in the path of a car wheel when passing out of the switch.

L is a link loosely connected at its inner 55 end to the under side of the shoe J and at its outer end it is pivotally connected to the angle iron M, which is pivoted as shown, adjacent the outer rail of the switch.

The arms H' and M' of the respective angle 60 irons H and M are connected by the wires N which are extended through a protecting pipe or casing O, so that when the longitudinally movable bar E is moved outward for closing the switch the link L will be drawn outward 65 by means of its connection with iron H and wires N leading from the latter to iron M, thus throwing the flange of the said shoe or block over the rail of the siding so as to effectually obstruct the forward movement of 70 a car upon the siding. When the switch is open with the main track the movement of the above mentioned mechanisms is reversed thus pushing inward the said shoe or block and out of the way of the track, so as to per- 75 mit an unobstructed passage of the cars from the siding to the main track. Thus it will be seen that the safety device works in conjunction with the switch operating mechanism so that the same movement which closes the 80 switch to the siding sets the safety device, and the opposite movement which opens the switch to the siding removes the device from its operative position.

The end of the shoe or block is provided 85 with a vertical groove O' for the purpose of catching the flange of a car wheel which may run against it and in this manner the block is locked against the rail and if the velocity of the car is so great as to force the wheel 90 over the block the flange upon the upper side of the shoe is sufficient to throw the wheel off the track, and thus in an extreme case prevent the car from leaving the siding.

The device is simple in construction and 95 may be readily applied to switches now in general use.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. An improved derailing guard comprising a bar pivoted at a point inside of the rail and

extending parallel therewith, the bar having at its free end an outwardly extending horizontal flange adapted to overlap the rail, and an outwardly curved vertical flange at the inner side of the horizontal flange.

5 2. The combination of a side track rail, a shoe pivoted adjacent the same, a means for adjusting the shoe to and away from the rail, and a vertical groove formed in the shoe end, 10 for the purpose substantially as shown and described.

3. An improved derailing guard comprising an arm pivoted at one end at a point inside of the rail, said arm having at its free end a 15 vertical portion provided with an outwardly extending horizontal flange at a point below the upper edge of the said vertical portion, the vertical portion above the horizontal flange being curved outward at its inner end, for the 20 purpose described.

4. An improved derailing guard comprising a horizontally swinging arm pivoted at one end at a point inside of the rail, its free end having a vertical portion extending above the rail, an outwardly extending horizontal flange 25 below the upper edge of the vertical portion and adapted to overlap the rail, an operating means outside of the rails, and a connection extending under the rail and connected with the vertical portion of the guard and its op- 30 posite end connected with the operating device, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

G. D. WARREN.
JAMES CASEY.

Witnesses:

GUS MARTIN,
JNO. H. SELF.