(No Model.)

J. GOODFELLOW.

SWITCH MOVER.

No. 509,370. Patented Nov. 28, 1893.

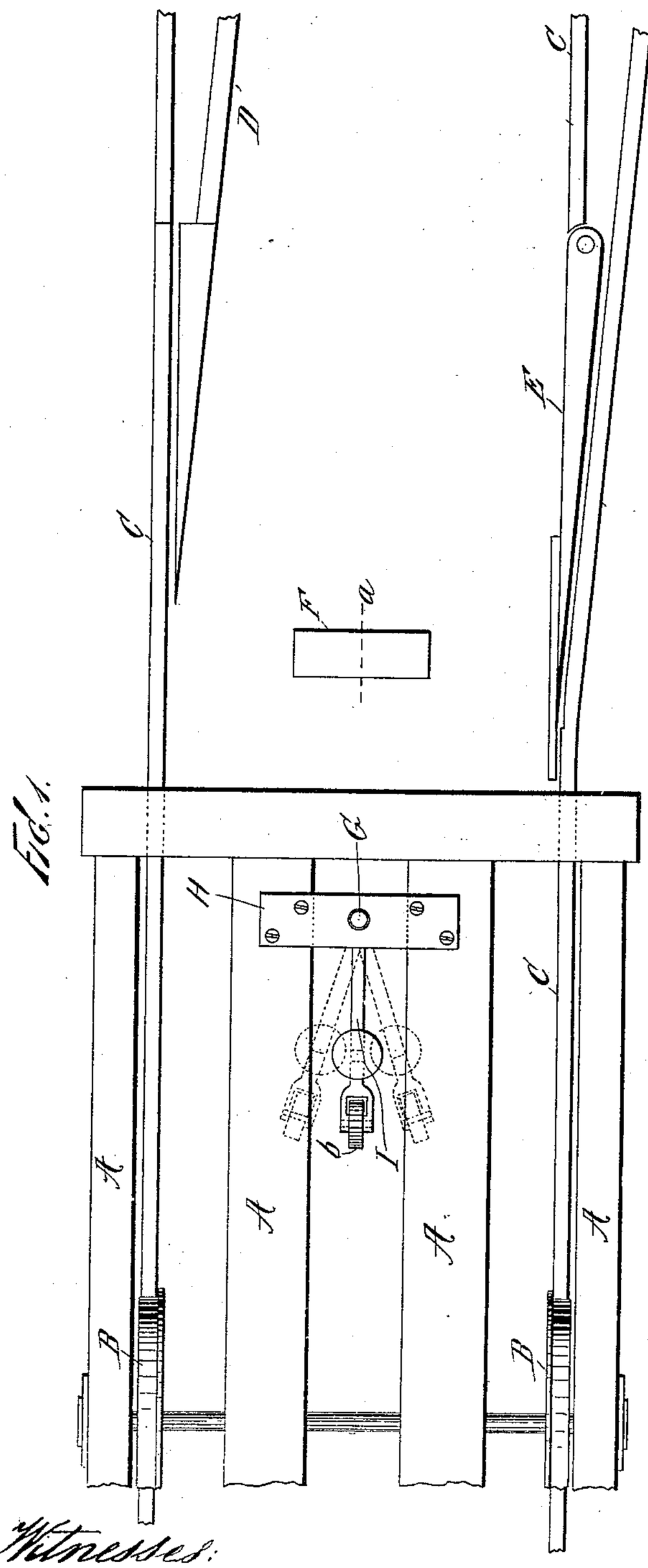

FIG. 1.

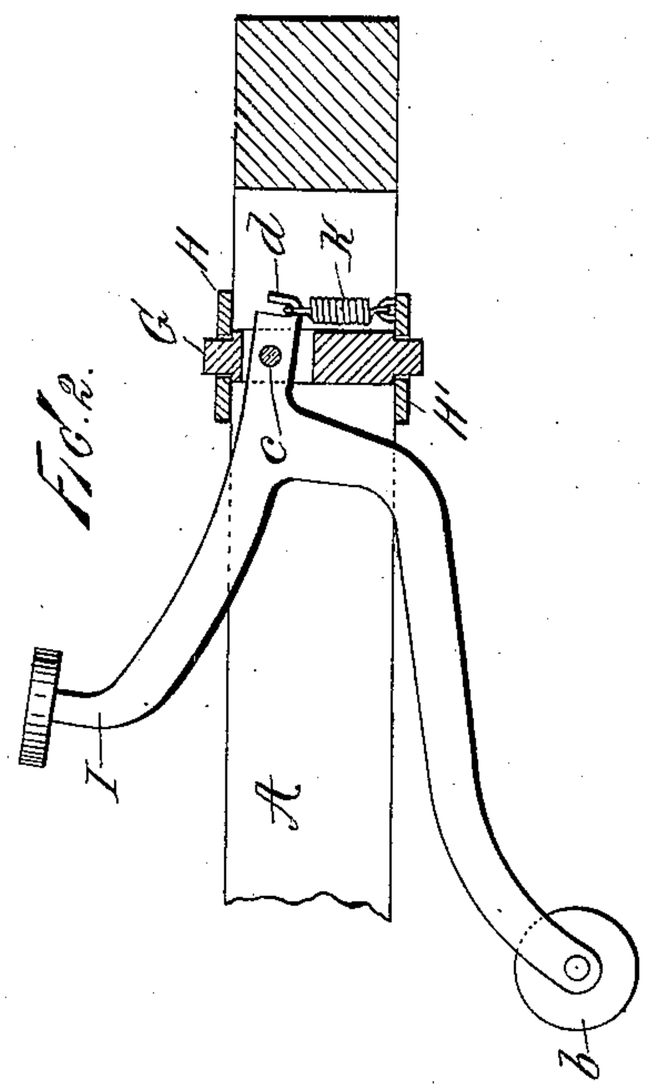

FIG. 2.

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JAMES GOODFELLOW, OF NEW YORK, N. Y.

SWITCH-MOVER.

SPECIFICATION forming part of Letters Patent No. 509,370, dated November 28, 1893.

Application filed December 23, 1892. Serial No. 456,127. (No model.)

To all whom it may concern:

Be it known that I, JAMES GOODFELLOW, of New York city, county and State of New York, have invented certain new and useful Improvements in Switch-Movers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has relation to means for effecting the movement or adjustment of railway switches from a position on the moving car.

The object of my present invention is to provide a simple, cheap and effective mechanism, by the use of which the driver or other person on the car may instantly and easily move the switch, either to the right or left, as may be desired, without stopping or slacking the speed, and without leaving the car and employing a single piece horizontally-arranged, bent or forked lever on either end of the car to accomplish the required movement of the switch in either direction. To provide all of this and to secure other and further advantages in the matters of construction, application, operation and use, my improvements involve certain new and useful arrangements or combinations of parts and peculiar features of construction, as will be herein first fully described and then pointed out in the claims.

In the drawings Figure 1. is a plan view showing a portion of one end of the car-frame, with my improved lever mounted thereon and showing, also, a portion of the roadway with a switch and central platform. Fig. 2 is a sectional elevation showing the construction of the switch mover and the manner of applying it.

In both figures like letters of reference, wherever they occur, indicate corresponding parts.

A A represent the longitudinal car timbers and B B the car wheels of any ordinary street car.

C C are the main tracks and D D the side tracks.

E is a switch tongue, the location of which determines the direction of travel of the car, whether to continue upon the main track or to proceed upon the branch or side track. The switch tongue is moved by direct connection of any sort with a tilting platform F, located between the tracks, the axis of this platform being about midway between the tracks, as indicated by the dotted line *a*.

The platform F and, therefore, the switch-tongue may be moved by the weight of the draft animals or by jumping upon it, as is the usual custom, but to move it from the car, in either direction required, is the chief purpose of my invention, and to do this with a single lever I employ the following mechanism.

G is a short post or standard, like a crane-post, the same being sustained in a vertical position between the central car timbers or in the center of the platform portion of the car between two bearing plates H H′, which are firmly secured in place above and below the timbers. These plates H H′ are perforated to receive the ends of the post, which is free to turn about a vertical axis.

I is a single-piece, horizontally-arranged, bent or forked foot-lever, the upper portion of which carries a foot-piece and in the lower portion of which is mounted a friction wheel, as *b*, but the foot-piece and the friction wheel are not necessary, although they are convenient. This lever is pivoted in a vertical slot formed in post G, the pivot or axis, represented at *c*, being horizontal. A vertically arranged spiral spring K is employed to maintain the lever up or clear of the road bed. This spring may conveniently be attached at one end to the plate H′ and at the other to a projection, as at *d*, on the lever. Ordinarily the lever rides, as indicated by the full lines in Fig. 1, near the central line of the car. Upon approaching the platform of the switch, the driver, with his foot, moves the lever to the right or left, according to the course he wishes the car to run, and then presses down. The wheel or lower portion of the lever tips the platform and thus the switch is moved. Upon releasing the lever the spring K operates to raise it from the road bed.

Only one of the improved levers is required at either end of the car, instead of two and sometimes four, as heretofore required. This reduction in the number of operating levers is important because, frequently, the car platform becomes crowded and the levers are not

accessible—and again too many of them confuse the operator in cases requiring instant application to avoid accidents.

The device is simple and well calculated to answer the purposes or objects of the invention referred to.

Having now fully described my invention, what I claim as new herein, and desire to secure by Letters Patent, is—

1. In a switch mover, a single-piece, horizontally-arranged, bent or forked foot-lever mounted upon a car frame and combined with vertical and horizontal axes upon which it is free to move or be moved vertically and horizontally toward either side of the car to tip the switch platform, substantially in the manner and for the purposes set forth.

2. In a switch mover, the combination of the single-piece, horizontally-arranged, bent or forked foot-lever, the vertical vibratory post, the horizontal axis passing through said lever and post, and a vertically-arranged spiral-spring connected with the inner end of said lever, the parts being mounted upon a car and arranged for operation, substantially as shown and for the purposes set forth.

3. In a switch-mover, the combination of the single-piece, horizontally-arranged, bent or forked foot-lever I, the vertically-slotted post G, the horizontal pivot or axis *c*, the upper and lower bearing-plates H H′, and the vertically-arranged spiral-spring K, having its upper and lower ends respectively attached to a projection formed on the inner portion of said lever and to the lower one of said bearing-plates, all arranged and mounted substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JAMES GOODFELLOW.

Witnesses:

W. J. MORGAN,

WORTH OSGOOD.