

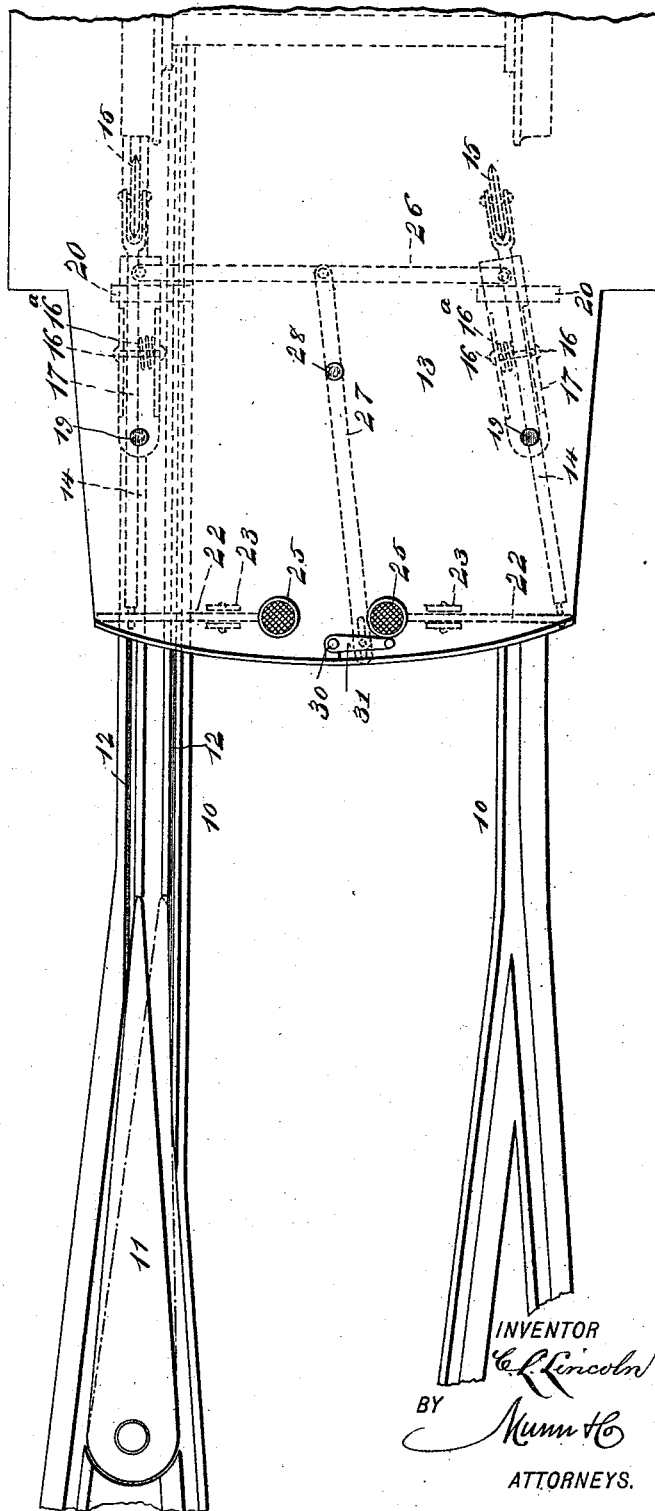
(No Model.)

2 Sheets—Sheet 1.

C. L. LINCOLN.
SWITCH WORKING MECHANISM.

No. 526,979.

Patented Oct. 2, 1894.



WITNESSES:

H. Walker
C. Bedgwick

INVENTOR

C. L. Lincoln

BY

Munn & Co.

ATTORNEYS.

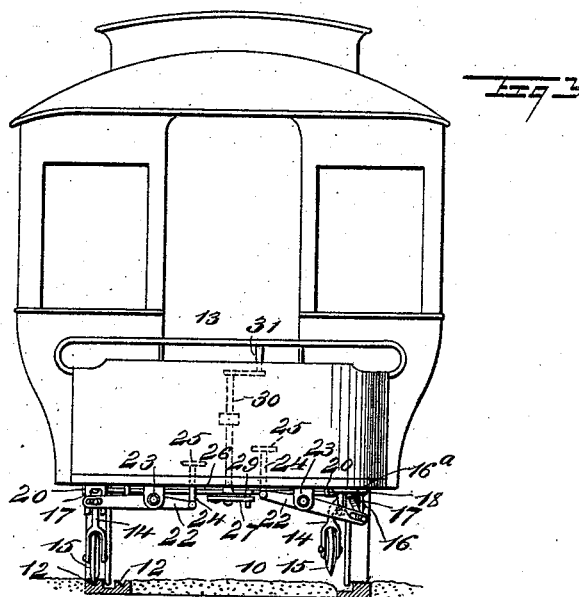
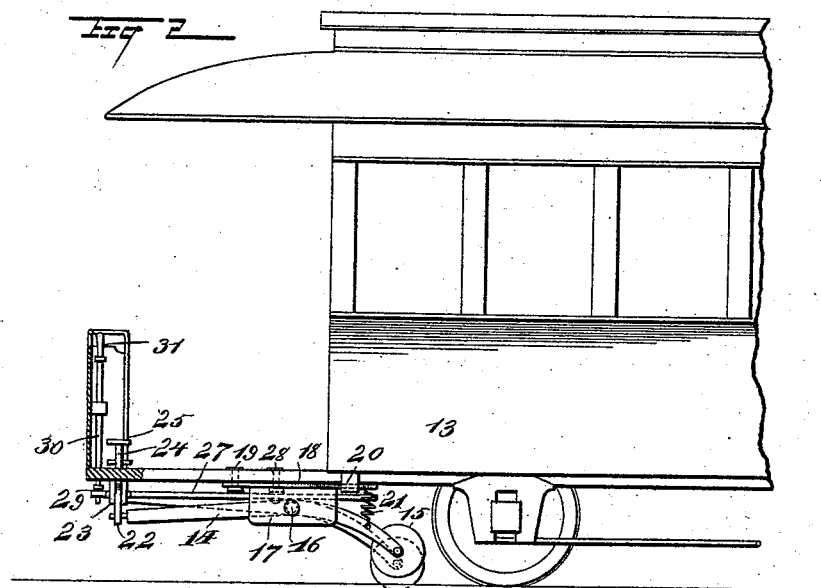
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UNITED STATES PATENT OFFICE.

CHARLES L. LINCOLN, OF BROOKLYN, NEW YORK.

SWITCH-WORKING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 526,979, dated October 2, 1894.

Application filed November 22, 1893. Serial No. 491,677. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. LINCOLN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Switch-Working Mechanism, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of switch working devices, which are carried by a car or similar vehicle; and which may be operated from the car to work a switch rail or joint.

The object of my invention is to provide a simple and efficient means for throwing the shift wheel or roller of the switch-working mechanism to either side of the switch rail or point, as desired, so that the switch may be opened or closed at will and operated from a moving car.

To these ends my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken plan view of a switch and of a car provided with my improved switch-working mechanism. Fig. 2 is a broken side elevation of a car provided with my improvements and with parts in section. Fig. 3 is a cross section of the track and an end elevation of a car provided with my improved switch-working device.

The track 10 is of the usual kind and is provided with the customary switch point 11 and also with guide grooves 12 which are arranged longitudinally near one rail and terminate on opposite sides of the switch point, so that when the shifting wheel or roller enters one of said grooves it strikes and turns the switch point. The car 13 is provided at the ends and on opposite sides with vertically swinging levers 14 which are bent downward at their inner ends and carry shift wheels or rollers 15 which are adapted to enter the guide grooves 12 and work the switch rail or point 11.

The levers 14 are hung on opposite sides of the car, so that a switch on either side of the track may be operated as desired, and each lever is pivoted on a pin 16, extending trans-

versely through a hanger 17, and the latter has a top plate 18 which is pivoted on the under side of the car platform on a pin 19 and has one end held to slide in a guide 20. A spiral spring 16^a, around the pin 16, presses the lever 14 against one side of the hanger 17 and permits the necessary sidewise movement of the lever on its fulcrum.

The rear end of each lever 14 is held upward by a spring 21, so that the roller is normally above the rail. The front end of each lever 14 is pivoted to the outer end with a transverse lever 22 which is fulcrumed near the center in a hanger 23 on the under side of the car platform, and each lever 22 has its inner end connected to a treadle rod 24 which extends upward through the platform and terminates in a foot piece or treadle 25 on which the operator steps to depress the roller 14, and it will be observed that the depressing of the treadle depresses the inner end of the lever 22, thus raising the outer end and lifting the front end of the lever 14 so that the roller 15 is carried downward into contact with the track.

The top plates 18 of the hangers 17 are, at their rear ends, connected by a rod 26, so that both hangers may be swung laterally and together, and the bar or rod 26 is pivoted near the center to the rear end of the lever 27 which extends horizontally forward beneath the car floor and is fulcrumed on a pin 28. The front end of the lever 27 is pivoted to a crank 29 on the lower end of a shaft 30 which is mounted in suitable supports on the fender of the car and, at its upper end, is provided with a crank handle 31 by which it may be turned.

It will be seen that by turning the crank handle 31 and shaft 30, the lever 27 may be swung on its fulcrum, and the hangers 17 move so as to bring the wheels or rollers 15 into a position on either side of the switch 11 and then, by depressing the proper treadle 25, one of the rollers may be thrown into one of the grooves 12 so as to move the switch point 11 as the car is drawn over it.

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

1. The combination, with the car, of a vertically swinging lever carrying a shifting de-

vice, and adapted to slide laterally on its fulcrum, and a spring adapted to hold the lever in normal position on the fulcrum, substantially as described.

5 2. The combination, with the car, the hanger arranged beneath the same, an essentially horizontal pivot pin held in the hanger, a lever fulcrumed on the pin and adapted to slide laterally thereon, said lever carrying a shifting
10 ing device at one of its ends, and a spring coiled around the pivot pin between the hanger and the lever to hold the latter in its normal position, substantially as described.

15 3. The combination, with the car, the vertically swinging levers and the shifting devices carried by the levers, of pivoted hangers to support the levers, an operative con-

nection between the hangers, and means for moving the hangers transversely of the car, substantially as described. 20

4. The combination, with the car, the vertically swinging levers and the shifting devices carried by the levers, of pivoted hangers to support the levers, a cross bar connecting the hangers, a crank shaft mounted on
25 the car, and an operative connection between the crank shaft and the cross bar whereby the latter may be moved transversely, substantially as described.

CHARLES L. LINCOLN.

Witnesses:

GEORGE S. BILLINGS,
JOHN JOHNSTON.