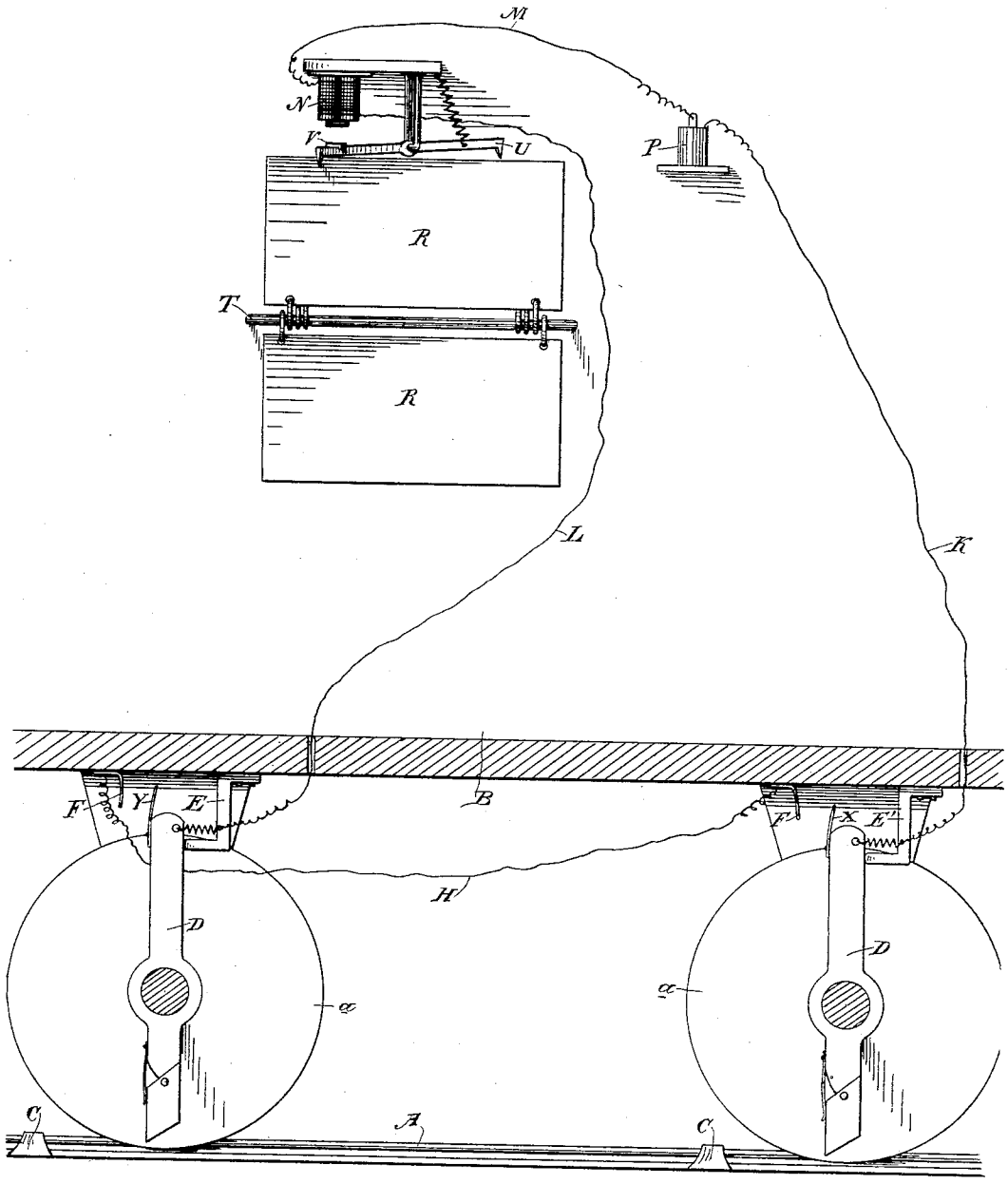
(No Model.)

W. A. TURNER.

DEVICE FOR ACTUATING STREET OR STATION INDICATORS.

No. 389,122. Patented Sept. 4, 1888.



Witnesses,
S. Towne.
H. C. Lee

Inventor,
W. A. Turner.
By Dewey & Co.
Attys

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM A. TURNER, OF SAN FRANCISCO, CALIFORNIA.

DEVICE FOR ACTUATING STREET OR STATION INDICATORS.

SPECIFICATION forming part of Letters Patent No. 389,122, dated September 4, 1888.

Application filed January 31, 1888. Serial No. 262,571. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. TURNER, of the city and county of San Francisco, State of California, have invented an Improvement in a Device for Actuating Street or Station Indicators; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a mechanism for actuating street or station indicators. Its object is to prevent the actuation of the indicator by obstructions which may be accidentally present on the track.

It consists of two or more detached tripping-blocks or obstructions fixed upon the roadway at each point where it is desired to operate the indicators, and a similar number of levers fulcrumed upon the car and so placed as to simultaneously engage the tripping-blocks, and, in connection with this, of a mechanism which can only be operated by the joint action of the two levers so as to release the indicators at the proper points.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a view of the railway-track with the car traveling thereon, showing the levers, tripping-block, and the electro-magnetic mechanism for actuating the street or station indicators.

In the appliances which have heretofore been used for operating station-indicators a single obstruction serves to operate a lever or wheel attached to the car whenever the car passes the point where the tripping-block is fixed, and through this lever the indicator card or device is exhibited. The objection to this form of apparatus is principally that it is liable to be actuated by obstacles accidentally placed upon the track so as to give a false record. In order to overcome this defect, I have arranged the levers in sets of two or more, and the tripping-blocks or obstructions are correspondingly fixed in pairs or series at the proper intervals upon the roadway, so that the levers shall be actuated simultaneously, and if less than all the levers are moved then the indicator will not be affected thereby.

In the present drawing I have shown only so much of the railway-car and the connected devices as to illustrate my invention, the parts being somewhat disproportionate for the purpose of showing clearly the operative mechanism. I have also shown the device as applied to an indicator actuated by an electric current; but it will be manifest that the series of levers may operate the indicator by other mechanism as well.

In the drawing, A is the railway-track or the roadway upon which the wheels *a* of a railway-car are adapted to travel, and B represents the car supported upon the axles of the wheels. Permanent blocks or obstructions C C are fixed upon the roadway in any suitable or well-known manner with relation to the tracks and the traveling car or parts thereof. These obstructions, of which I have shown two in the present case, are fixed at the same distance apart as the levers D D, which are fulcrumed upon the car so that their lower ends extend to a point so near the ground that when the car passes any two of the tripping-blocks the points of the lever will engage the two blocks simultaneously and thus be turned about their fulcrums.

E E′ are posts or stops fixed to the body of the car adjacent to the upper ends of the levers D, with which they are connected by springs or any suitable elastic connection, by which communication may be maintained between the levers and the posts while the levers may be moving, or at varying distances from the posts. One of the posts, E′, is connected by a wire, K, with the battery P, fixed at a suitable point on the car, and the other post, E, is connected by a wire, L, with the electro-magnet N, by which the indicating cards or plates are operated and exposed. In the present case these indicating-plates R are suspended upon the shaft T, being turned up above it and held in position by a pawl-lever, U, which has an armature, V, fixed to it, so that when the current of electricity passes through the electro-magnet N it will raise the pawl-lever and allow one of the indicator-plates to swing downward around the suspending hinges and expose the name of the street or station, this construction being fully explained by a former application for patent filed by me December 8, 1887, Serial No. 257,281.

The electro-magnet N is connected with the battery P by the wire M. Upon each of the

swinging levers D is a plate of metal, as shown at X and Y, and the plates F F are fixed with relation to the levers, so that when the two levers are caused to swing by coming in contact with the tripping-blocks C they will bring the two plates X and Y simultaneously into contact with the plates F F. These plates F F are united by the wire H; and by this construction, when both contacts are formed, a circuit is completed through the wires K, L, and M and the electro-magnet, which causes the latter to disengage one of the indicating-plates, as before described. Whenever only one of the levers D should strike an obstruction, which would move it and form the contact between its plate and the corresponding plate F, no circuit would be completed and no action of the indicator would take place.

It will be manifest that the lower part of the lever-arms D may be hinged or jointed in such a way that no movement of the levers would take place if the car were moved in an opposite direction; and it will also be obvious that any number of the levers with corresponding mechanism might be employed, if found desirable.

Although in the drawing I have shown only the parts connected so as to be operative without reference to proportional sizes or the absolute relative positions of these parts upon the car, it is for the purpose of simplifying the drawing; and it will be manifest that any one skilled in the art can easily place the parts at any desired points of the car without further illustration.

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

A street or station indicator fixed upon a car, and the means for preventing the actuation of said indicator by accident, consisting of a plurality of levers fulcrumed upon the car, in combination with corresponding obstructions fixed upon the line of the track and having spaces between them equal to the distance between the ends of the levers, whereby the levers will be actuated simultaneously, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM A. TURNER.

Witnesses:
GEO. H. STRONG,
S. H. NOURSE.