

(No Model.)

O. A. BISSELL.
SWITCH.

No. 600,302.

Patented Mar. 8, 1898.

Fig. 1.

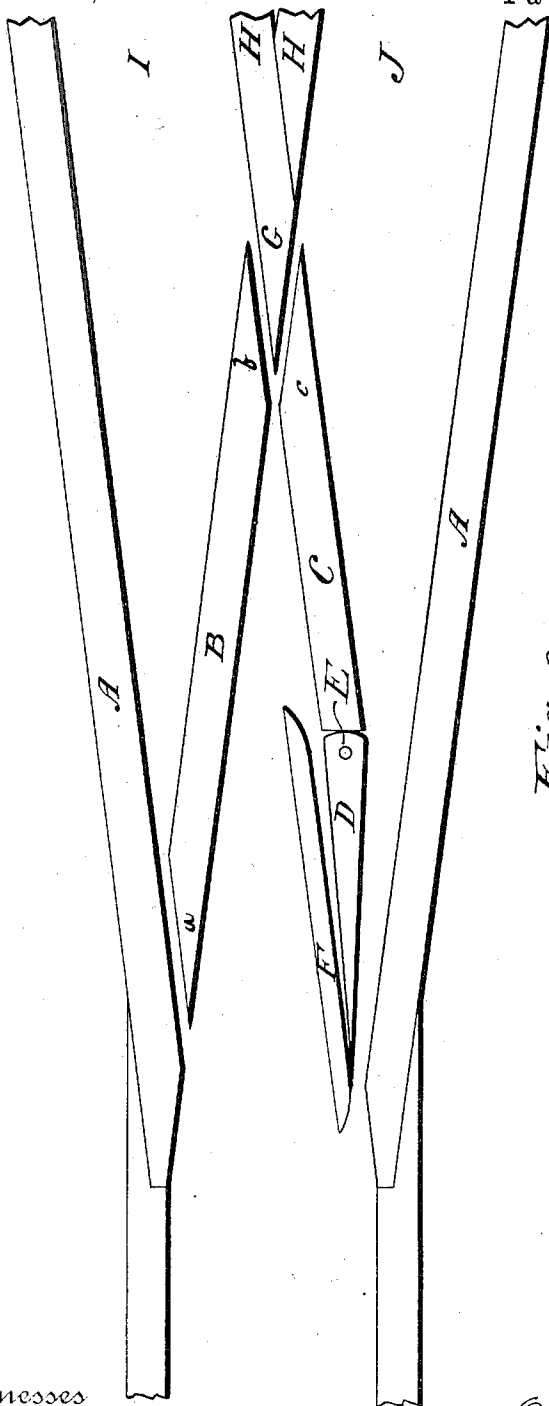
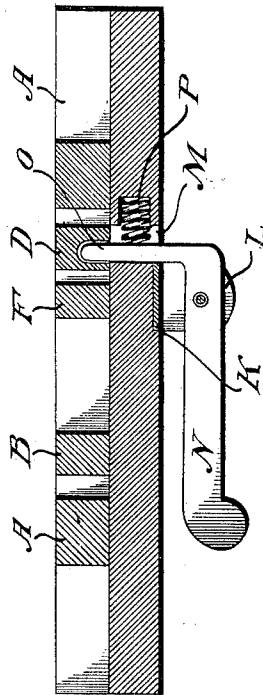


Fig. 2.



Witnesses

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ORRIN ANSON BISSELL, OF NEW MILFORD, OHIO.

SWITCH.

SPECIFICATION forming part of Letters Patent No. 600,302, dated March 8, 1898.

Application filed July 19, 1897. Serial No. 645,062. (No model.)

To all whom it may concern:

Be it known that I, ORRIN ANSON BISSELL, of New Milford, in the county of Portage and State of Ohio, have invented certain new and useful Improvements in Switches; and I do hereby 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.

My invention relates to new and useful improvements in switches, and it is my purpose to more especially improve switches adapted for use in connection with street-railways.

The object of the invention, primarily, is to provide a switch that is adapted to be operated by the flange of the wheel of the car to run the same from one of the branch tracks onto the straight track and to be automatically restored to its normal position when the car has passed to keep one of the branch tracks always open to cars from the straight track.

A further object of the invention is to provide a switch that will be especially simple in construction, durable, and efficient in operation.

Other objects and advantages of the invention will become apparent in the course of the following description, and the points of novelty will be particularly set forth in the claims.

I am enabled to accomplish the objects of my invention by the simple means illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of a section of the railway-track, showing a portion of the straight track and two branch tracks with my improved switch used in connection therewith. Fig. 2 is a transverse sectional view, showing means for returning the switch-point to normal position.

Referring to the drawings, the letter A indicates the diverging outside stationary rails, and the letters B and C designate rail-sections located between the said rails, the rail B being beveled at both ends, as indicated by the letters *a* and *b*. The rail-section C is beveled at one end only, as indicated by the letter *c*, the other end thereof being squared and adjacent to the switch point or tongue D, which is pivoted, as indicated by the letter E. Said tongue is adapted to be shifted between

the inner side of the side rail A and the guard-rail F. Extending between the beveled ends of the rails B and C is a point G, which is adapted to form continuations of the ends of the track-rails H, sufficient distance being left between the beveled ends of the rails B and C and said point to permit the entrance of the flange of the car-wheel.

It will be observed that the arrangement of the track-rails in the position shown and above described will form a single track and two branch tracks I and J. As shown in the drawings, the switch-point is normally set to run the car from the straight track onto the branch track J and in position to be operated or shifted by the flange of the wheel of the car coming from the left branch track I, the flange of said wheel passing between the guard-rail and the switch-point.

Attention being particularly called to Fig. 2, the letter K indicates a plate formed of any suitable material, but preferably metal, and having two ears L, depending therefrom on either side of the elongated slot M, extending entirely through the plate. Pivoted between these ears is an angle-lever provided with a laterally-extending weighted arm N and a vertical arm O, extending through said slot and entering a slot in the underside of the switch-point.

It will be seen from the foregoing description that the weighted arm of the lever will keep the switch-point in constant engagement with the guard-rail and open the branch track J to the car from the straight track. The car coming from the track I will shift the switch-point and permit the car to run upon the straight track, and after said car has passed the weighted arm or lever will restore the switch-point to normal position against the guard-rail.

While I have described my improved switch as being particularly adapted for use in connection with street-railways, it will be obvious that the same could be used to advantage in connection with all railways and in practice would be found particularly adapted for use in connection with the rails of Y's, &c.

In addition to the weighted lever I provide a spring for keeping the switch-point in normal position, which spring in the drawings is designated by the letter P.

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

1. The combination with a support having
5 a vertical slot therethrough, of a switch-point pivotally mounted and having a socket in its under face, an angle-arm mounted upon the pivot disposed at right angles to that of the switch-point and having a vertical portion
10 passing through the slot of said support and into the socket of the switch-point, and means for returning said angle-arm to its normal position, all substantially as herein shown and described.
- 15 2. The combination with a suitable support, of a switch-point pivoted thereto, an angle-arm provided with a weighted end and with a vertically - extending end passing through a slot in said plate and having con-
20 nection with the switch-point, and a spring retained in a socket in the plate and bearing against the vertical extension of the arm, substantially as specified.

3. The combination with a support having a vertical slot therethrough, and a horizon- 25 tally-disposed socket adjacent to said slot, of a switch-point pivotally mounted and having a socket in its under face, an angle - arm mounted on the pivot at right angles to that of the switch-point and weighted at one end, 30 with its other end disposed vertically and passing through the slot of the support and into the socket of the switch-point, and a horizontally-disposed spring located in the socket of the support and acting upon the 35 vertical portion of the arm to assist the same in its return to its normal position, substantially as shown and described.

In testimony whereof I have signed this specification in the presence of two subscri- 40 ing witnesses.

ORRIN ANSON BISSELL.

Witnesses:

ANSON N. BISSELL,
F. P. SEYMOUR.