

(No Model.)

G. W. CARPENTER.  
AUTOMATICALLY OPERATED RAILWAY SWITCH.

No. 524,885.

Patented Aug. 21, 1894.

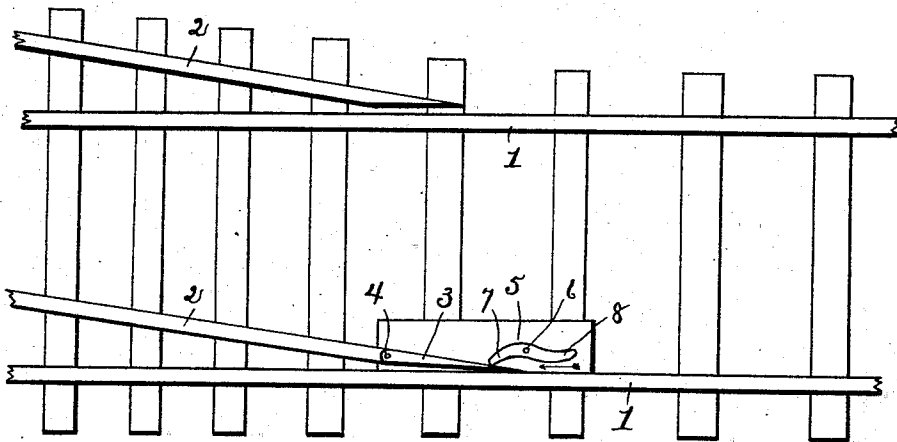


Fig. 1

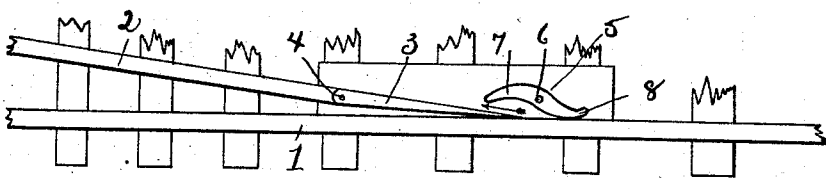


Fig. 2

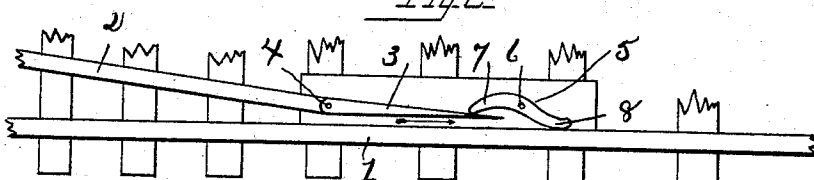


Fig. 3

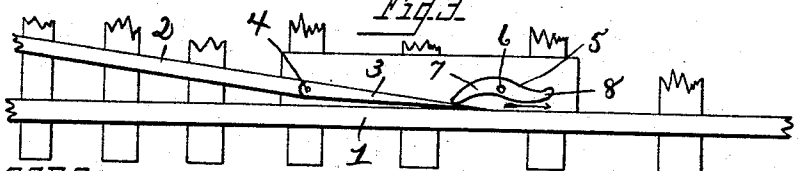


Fig. 4

WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE W. CARPENTER, OF TOLEDO, OHIO.

## AUTOMATICALLY-OPERATED RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 524,885, dated August 21, 1894.

Application filed November 29, 1892. Serial No. 453,458. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. CARPENTER, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Automatically-Operated Railway-Switches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to an automatically operated switch for use more particularly upon single track railways in which the cars going in one direction take the main line, and the cars going in the opposite direction take the switch, and the object of the invention is to provide means whereby the switch point of rails diverging from the main track will be automatically operated to close the switch by the flange of the wheel going in either direction.

A further object is to cheapen the construction, and render the operation positive by dispensing with springs or weights.

The invention consists in the parts and combination of parts hereinafter described and pointed out in the claim.

In the drawings: Figure 1 is a plan view of the main and branch rails, showing the switch point and lever for automatically opening and closing the same, the point being shown as closed. Fig. 2 is a plan view of one main and branch rail, the switch point and lever, the point being shown as closed. Fig. 3 is a like view showing the switch point as opened by the wheel just prior to the wheel passing from the point. Fig. 4 is a like view showing the wheel in the act of passing from the lever, and the point closed to guide a car onto the diverging tracks.

1 designates the rails of the main track.

2 designates the rails of the diverging track upon which it is desired to switch the cars.

3 designates a switch point pivotally connected with one end of the diverging rails at 4, and adapted to be brought in contact with the main rail to guide the car from the main to the diverging tracks.

5 designates an inversely curved lever pivoted centrally at 6, one end 7 adapted to be brought in contact with the switch point to

close the same when the opposite end 8 is moved from the main rail by the wheel flange when the car is going in either direction, as shown by the position of the lever in the different figures and indicated by the arrows.

In operation, a car advancing in the direction of the arrow, Fig. 1, the flange of the wheel will pass between the end 8 of the lever, and the main rail, and in moving the end 8 from the rail, will close the switch as shown, thereby guiding the wheel upon the switch point and diverging tracks, the wheel in its forward movement upon the switch point swinging the lever to its original position as shown in Fig. 2, thereby allowing the switch point to open as shown in Fig. 3, when the car is advancing from an opposite direction and as the car passes to the main track swing the end 8 of the lever to again close the switch, as shown in Fig. 4, it being understood that each wheel upon the side of the car, acts upon the switch operating mechanism independently.

It will be seen that the device is inexpensive of construction, and not liable to get out of order, in view of its simplicity, and that it is readily adaptable to tracks already laid. It will also be observed that the operation is positive in closing the switch when the car is advancing toward the switch point, and equally positive in opening to allow the car to pass upon the main track when moving in an opposite direction, and in closing the switch for the next car to be guided upon the diverging tracks.

What I claim is—

In an automatically operated switch, the main track, the diverging track, a pivoted switch point, a curved lever, each end of which projects toward the main rail and switch respectively, a pivot pin substantially central of the lever, whereby the center is at all times out of contact with the flange of the wheel, and one end of the lever at all times in contact with the main rail or point respectively.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

GEORGE W. CARPENTER.

Witnesses:

CARROLL J. WEBSTER,  
FLOYD R. WEBSTER.