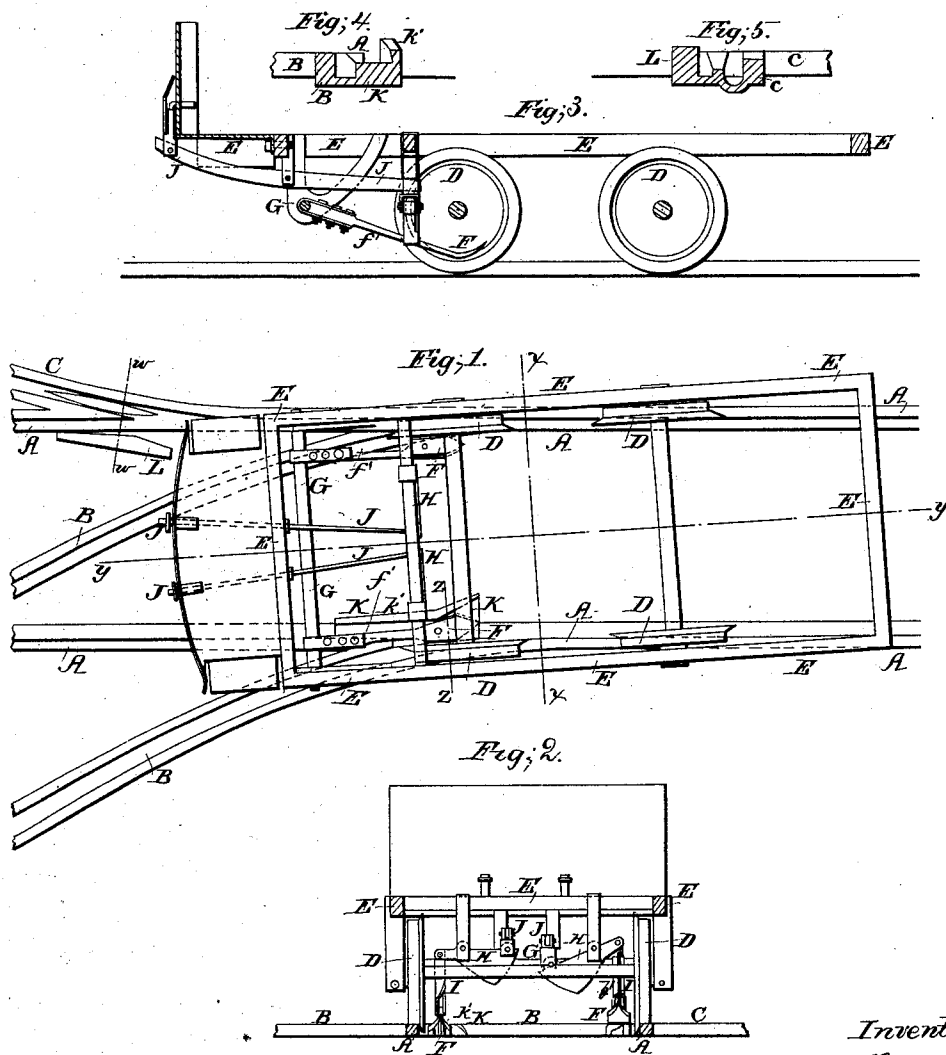


Allen & Snow.

Railroad Switch.

N^o 69,741.

Patented Oct. 15, 1867.



Witnesses;
Thos. Drake
Wm. Trewin

Inventors;
S. Allen
J. P. Snow
Per Munnell
Attorneys

United States Patent Office.

SIDNEY ALLEN, OF NEWTON, AND JAMES P. SNOW, OF ROXBURY, MASSACHUSETTS.

Letters Patent No. 69,741, dated October 15, 1867.

IMPROVED RAILROAD-SWITCH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, SIDNEY ALLEN, of Newton, in the county of Middlesex, and State of Massachusetts, and JAMES P. SNOW, of Roxbury, Norfolk county, Massachusetts, have invented a new and useful Improvement in Switch for Horse-Railroads; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top or plan view of a car-frame and track illustrating our invention.

Figure 2 is a vertical cross-section of the same taken through the line *x x*, fig. 1.

Figure 3 is a vertical longitudinal section of the same taken through the line *y y*, fig. 1.

Figure 4 is a detail cross-section taken through the line *z z*, fig. 1.

Figure 5 is a detail cross-section taken through the line *w w*, fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish a simple and convenient means, durable in construction, effective in operation, and not liable to get out of order, by which the car can be guided in passing from the main to a branch track, and which may be operated by the driver with his foot; and it consists in the combination of suspended pivoted guide-shoes with the frame and wheels of the car; in the combination of weighted or drop-levers, or their equivalents, with the guide shoes and frame of the car; in the combination of operating levers with the drop-levers; and in the combination of guide-blocks with the rails of the track at the points where the branch track leaves the main track; the whole being constructed and arranged as hereinafter more fully described.

A represents the rails of the main track, and B and C the rails of branch tracks. D represents the wheels and E the frame of a car. F are shoes formed upon the rear ends of the arms *f'*, the forward ends of which are pivoted to the bar or rod G, or to some other support attached to or forming a part of the frame E of the car. The rear part of the shoes F is suspended from the outer end of the levers H by means of chains or rods I. The levers H are pivoted to the frame E of the car, or to supports attached to said frame, and their inner ends are weighted so as to lift the shoes away from the track automatically. J are levers pivoted to the frame E of the car, the rear ends of which are pivoted to the inner ends of the weighted levers H, and their forward ends are bent upward, or have upwardly-projecting arms attached to them, which extend up into such a position as to be readily reached and operated by the driver with his foot. If desired, the weighted levers H may be replaced by a single balanced beam pivoted at its centre to the frame E of the car, and having the shoes F suspended from and the levers J pivoted to its ends, so that by raising one end of said beam the other end, and the shoe suspended therefrom, will be depressed. K is a guide-block attached to the track at the point where a branch track leaves the main track, and which is furnished with a guide flange, *k'*, along its inner edge, so that as the shoe F is lowered it may come between the flange *k'* and the wheel D and push or guide the wheel upon the side track. The flange *k'* is bevelled or slightly dove-tailed, and the edge of the shoe is slightly bevelled to prevent the said shoe from being pressed or slipping from the said flange before it has guided the wheel upon the branch track. The block K rises above the ordinary level of the track, and its outer edge forms a shoulder, as shown in fig. 4, so that as soon as the wheel has passed off this shoulder to enter upon the branch track it will be enabled to return to the main track, the said shoulder acting as a guide until the wheel has fully entered upon the branch track. L represents another form for a guide-block. In this case the block does not extend over the track, and consequently does not form a portion of raised track, but the same result is obtained by depressing or hollowing out the rail C and deepening the track for the flange of the wheels D, as shown in fig. 5. If desired, the lower surface of the shoes F may be corrugated, as shown in fig. 2, to act upon the snow or ice that may collect along the inside of the track.

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

1. The suspended pivoted guide-shoe or shoes F, constructed as described, and arranged to be adjusted between the wheel D and the raised flange *k'* upon the elevated track, whereby said wheel is crowded off the raised track upon the branch track, as herein set forth for the purpose specified.

2. The combination of the weighted or drop-levers H with the suspended shoes F and frame E of the car, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the operating levers J with the weighted levers H and with the frame E of the car, substantially as herein shown and described, and for the purpose set forth.

4. The raised and flanged guide-block K, constructed as described, connected with the rails of the track at the point where the branch track leaves the main track, substantially as herein shown and described, and for the purpose set forth.

5. The combination of the guide-block L with the rails of the track at the point where the branch track leaves the main track, when used in connection with the depressed rail and deepened track, substantially as herein shown and described, and for the purpose set forth.

The above specification of our invention signed by us this 19th day of June, 1867.

SIDNEY ALLEN,
JAMES P. SNOW.

Witnesses:

ALEX. F. ROBERTS,
JAMES T. GRAHAM.