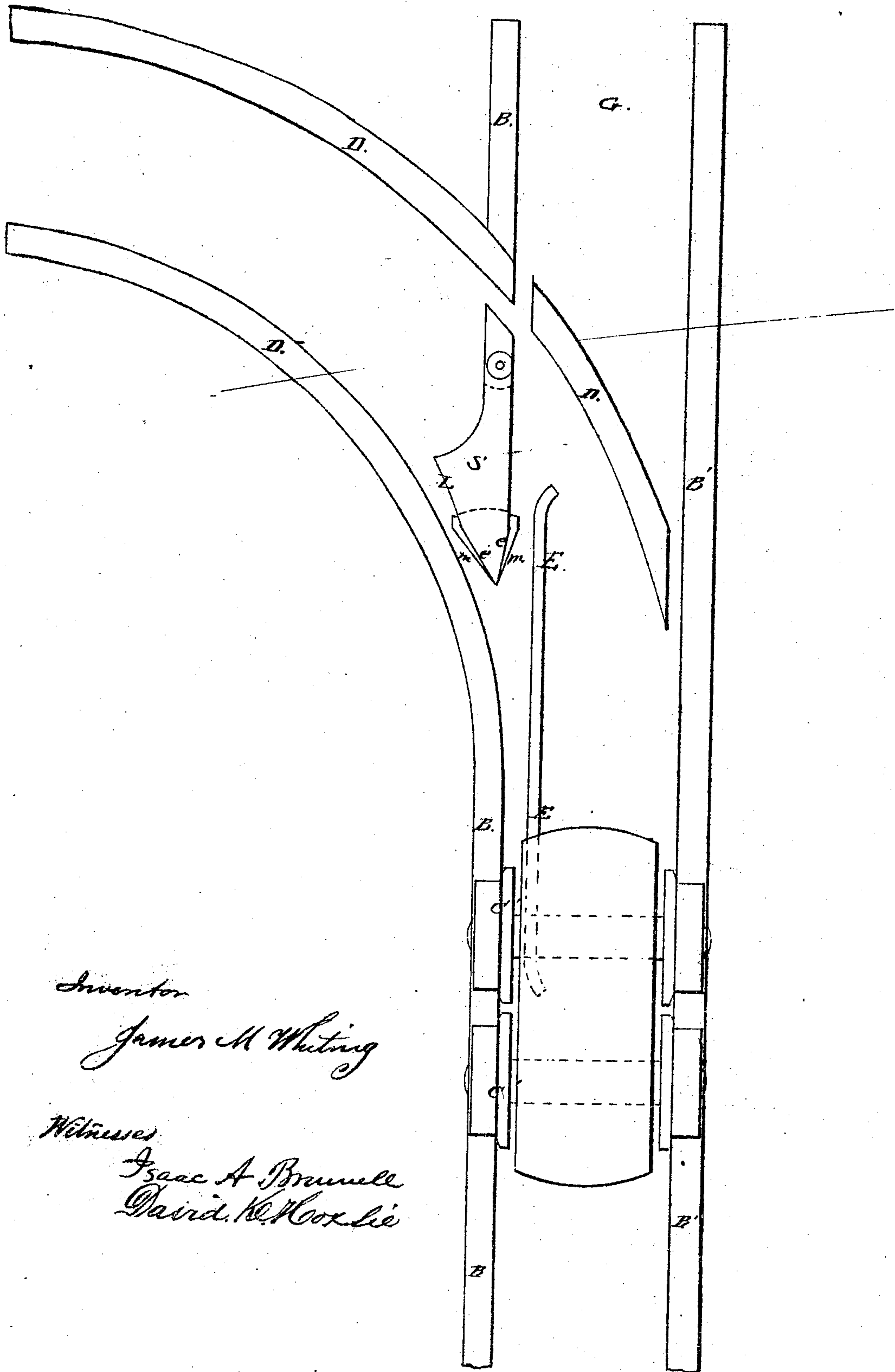


Railroad Switch.

Nº 72251

Patented Dec. 17, 1867.



Inventor

James M. Whiting

Witnesses

Isaac A. Brunell
David K. Hoxie

United States Patent Office.

JAMES M. WHITING, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 72,251, dated December 17, 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 I, JAMES M. WHITING, of the city and county of Providence, and State of Rhode Island, have invented a new and improved Self-Acting Railroad-Switch; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a plan of a railroad-track and its turn-out, arranged with my improved switch.

The object of my invention is to enable rail-cars (chiefly those propelled by horses,) to run over the switch upon either of a number of tracks, and to return at will, without stopping to shift the switch; and my invention consists in so constructing the switch, and arranging it at the junction of two or more separate tracks, that the position of the switch will be shifted by the car-wheels in the act of taking the particular track upon which it should run, and in like manner, in returning from one of a number of tracks to the main or single track.

To enable others to make use of my invention, I will proceed to describe the same by means of said drawings, in which—

B B' are the main railroad-track, and D D' the diverging track or turn-out, branching off from the same, and S is the switch, pivoted at A, and arranged at the junction of the two tracks, that is to say, B' being the continuous rail of the main track, and B D' being the continuous rail of the main track and a turn-out therefrom. The switch is arranged at the junction of the tracks or rails B D, and in a line mainly with the rail B, with its free end extending towards the point where the curvature of the turn-out begins on the main rail B. E is an auxiliary or guard-rail, curved at each end in the usual way. The switch S is pivoted at A, and is constructed with two inclined faces at *e e'*, terminating in a point, against which the flanges of the rail-car wheels C strike as it advances towards the switch; and in case the car is kept in line with the main track B, it will be seen that the inside of the flange of the wheel C' will strike against the inclined face *e* of the switch, and in consequence, be shifted or moved against the rail B D', and the car will proceed in a direct line on the main track. But if it is desired to run the car upon the turn-out or branch track, the driver of the car, by turning the horses so as to hug the continuous rail B D' at the junction, will cause the flange of the wheel C' to strike against the face *e'* of the switch, and to shift it from the position it just occupied against the rail B D', and the car, in consequence, will proceed on the turn-out or branch of the main track, the switch being held from close contact with either rail of the main track or turn-out by means of the guard-plate *m*, upon its under side, which rests against the rail B D' on the one side, and against the auxiliary rail E on the other side, and in either position presents the switch to be shifted by the flange of the advancing wheel C'. In advancing on the main track, from the point G towards the junction of the tracks, should the switch be against the auxiliary rail, as would be the case if a car had last passed from the turn-out upon the main track, the guard-plate *m* would afford sufficient space between the switch and the auxiliary rail to permit the free passage of the flange of the near car-wheel, and at the same time to prevent the off-wheel from crowding against the main rail B'. And should a car, after this, pass from the turn-out on to the main track, there would be sufficient space between the end of the switch and the rail B D' to permit it to do so, and without crowding against the off disconnected portion of the curved rail D. But in case the car passed last over the main track, towards the point G, and in so doing shifted the switch against the rail B D', and the next car should approach the switch from or upon the turn-out, the flange C' of the near wheel would strike against the inclined or curved surface, *L*, of the switch, and by so doing shift it against the auxiliary rail E, and permit the wheels to pass without crowding against the detached portion of the rail D. Thus it will be seen that under any and all circumstances, with the car moving in either direction over the switch, it will be readily shifted by the wheel's flange, and permit the car to pursue the particular course which the driver chooses or is required to take, the switch each time accommodating itself to the direction given to the car, and permitting its passage as freely as a carriage could take its direction on a common road.

What I claim, and desire to secure by Letters Patent, is—

The construction and arrangement of the switch S, in such a manner as that it may be properly shifted by the rail-car in the act of passing over the same, substantially as described.

JAMES M. WHITING.

Witnesses:

ISAAC A. BROWNELL,
DAVID K. HOXSIE.