

J. A. Heyle.

Railroad Switch.

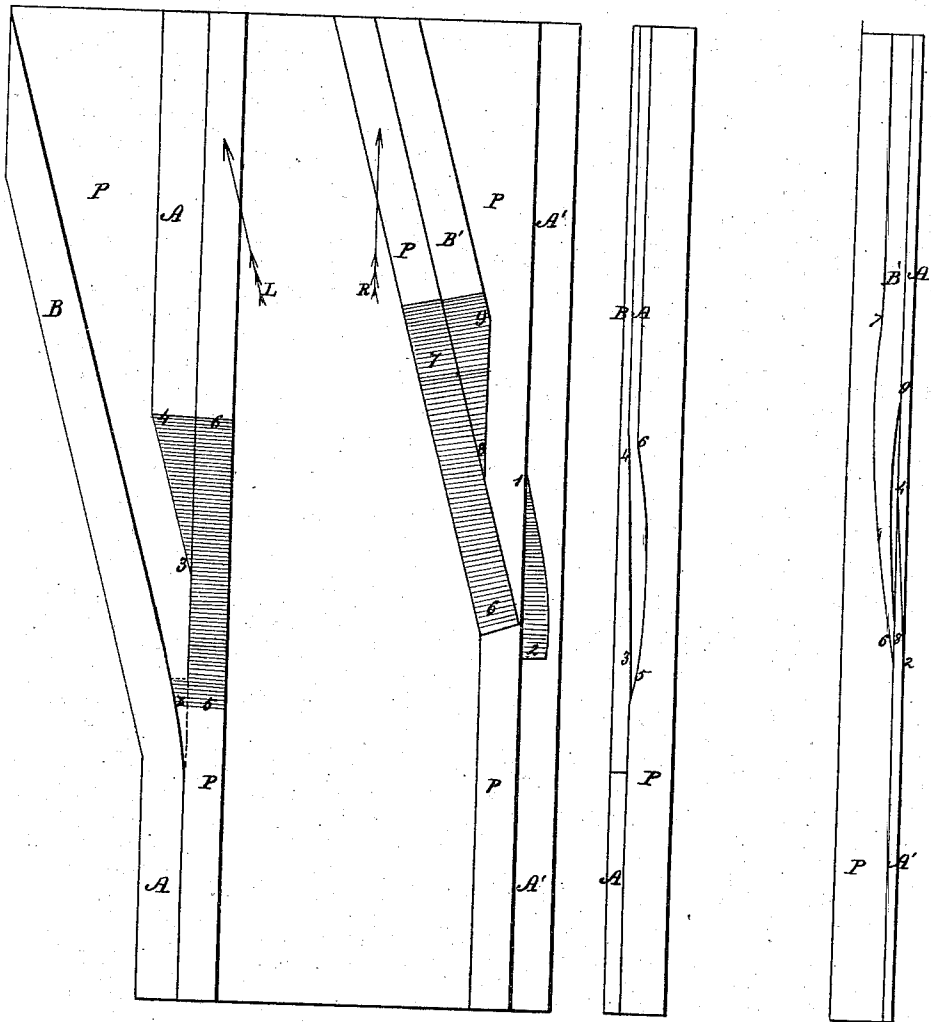
*N^o 2,430.
33,434.*

Patented Oct. 8, 1861.

Fig. 1.

Fig. 2.

Fig. 3.



*Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN ADAM HEYLE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND JOHN O'BRIEN, OF SAME PLACE.

IMPROVEMENT IN SELF-ACTING SWITCHES FOR HORSE-RAILROADS.

Specification forming part of Letters Patent No. **33,434**, dated October 8, 1861.

To all whom it may concern:

Be it known that I, JOHN ADAM HEYLE, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in Self-Acting Horse-Railroad Switches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top view; Fig. 2, a side elevation of one-half of the switch, and Fig. 3 a similar view of the other half.

Like parts are indicated by the same letters and figures in all the drawings.

To enable others skilled in the art to make and use my improvement, I will now describe its construction and operation.

The nature of my invention consists, first, in making in the top of rail A', as shown in Fig. 1, a curved depression 1 2, so that the car-wheel following the draft-line or the direction taken by the horse may either pass above said depression on the top of rail A' or be switched off onto the rail B' by means of said depression, there being a space X on the opposite flange to allow a lateral slide of the wheel thereon corresponding to the curve of the depression between 1 and 2; and, second, in making the depressions between 6 and 7 and 8 and 9 in the flange P and rail B', also the depressions between 5 and 6 and 3 and 4, substantially as hereinafter described, by means of which devices the switch is made self-acting and the necessity of employing a man to tend it is obviated.

Figure 1 represents a top view of the switch and a portion of two tracks A A' and B B'.

P P are the bottom flanges resting on the sleepers, being confined to the latter in the usual manner by spikes.

Rails A and B with the flanges P are made of cast-iron, cast in one piece. Rails A' and B' with flanges P are also of cast-iron, cast in one piece. It is obvious, however, that instead of being cast-iron these rails may be made of wrought-iron, either in one piece or in parts; but for the sake of cheapness and strength I prefer to make them of solid cast-iron, as described.

The depression in the rail A' commences, as shown in Fig. 1, at 2, near the center of

the rail, and gradually inclines toward rail B' till it reaches point 1, where it is flush with the top of flange P. Rail B' is also depressed or beveled from 9 to 8, where it is flush with the top of flange P, to gradually raise the car-wheels. There is also a depression in the flange P, from 6 to 7, corresponding with the depressions 1 2 and 8 9, and affording space for the flanges of the car-wheels to run in. The end of rail A is also beveled from 4 to 3, where it is flush with the top of flange P. There is also a depression in the flange P from 5 to 6 to give space for the car-wheel flanges to run in. There is also a flat place X at the junction of the flanges of the rails A and B, the object of which (as explained above) is to allow the car-wheel thereon to slide laterally, so as to correspond with the curve of the depression between 1 and 2. Thus as I make use of the common kind of car-wheel it is obvious that if the horse is driven in the direction of the arrow R the car will move along without obstruction on the rails A A', but if the horse is turned at the proper time in the direction of arrow L, the front of the car will be so turned by the draft that the right forward wheel will sink into the depression 1 2, (the left one sliding over X,) and thus the car will be switched from track A A' to track B B' simply by driving the horse in the proper direction, thereby saving the expense of employing a man to tend the switch. It is also obvious that a car moving over track B B' in a direction opposite to that of arrow L will be in a similar manner switched onto track A A'.

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

1. The curved depression 1 2 in rail A', constructed and operating substantially as described.

2. In combination with the curved depression 1 2, the depressions 6 7 in flange P and 8 9 in rail B', substantially as and for the object specified.

3. The depressions 5 6 in flange P and 3 4 in rail A and the space X, substantially as and for the objects specified.

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