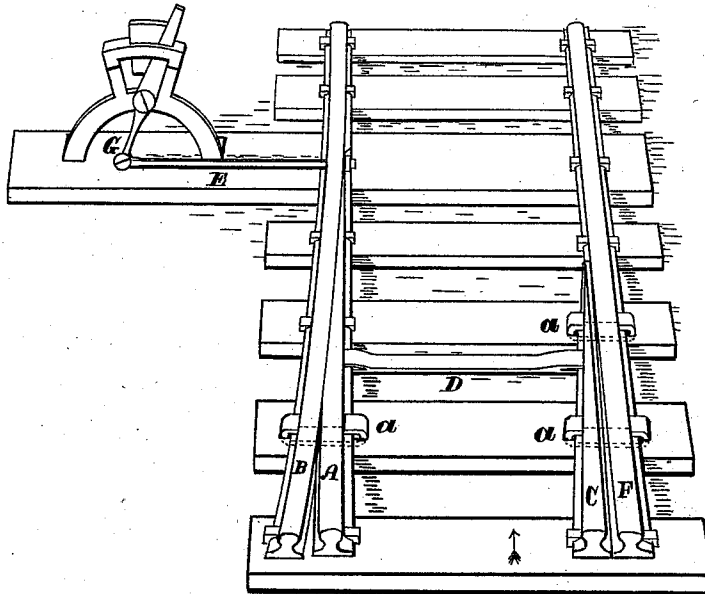


T. J. REYNOLDS.
RAILROAD-SWITCH.

No. 176,890.

Patented May 2, 1876.



WITNESSES:

Levi P. Graham
Geo. W. Lyon

INVENTOR:

Thomas J. Reynolds
By *Chas. P. Housman*
His Atty.

UNITED STATES PATENT OFFICE.

THOMAS J. REYNOLDS, OF WATSEKA, ILLINOIS, ASSIGNOR OF ONE-HALF
HIS RIGHT TO WILLIAM D. GUERNSEY, OF TERRE HAUTE, INDIANA.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **176,890**, dated May 2, 1876; application filed
February 19, 1876.

To all whom it may concern:

Be it known that I, THOMAS J. REYNOLDS, of Watseka, in the county of Iroquois and State of Illinois, have invented a new and useful Improvement in Railroad-Switches, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to so construct a railroad-switch that the cars will not be thrown from the track in whatever direction the cars may be moving if the switch-rails should be misplaced; and consists in the arrangement of two pointed switch-rails joined with a single bridle, the short switch-rail operated through its connection to the long switch-rail by said bridle, the long switch-rail being controlled by a spring-lever, as is shown in the patent No. 145,013 granted to me November 25, 1873. By this arrangement of switch-rails the flange on the car-wheel opens and closes the switch-rails, as is hereinafter described.

The figure is a perspective view of a railroad-switch embodying my invention.

A is the long and pointed switch-rail joined to the rail of the main track with fish-bars, the pointed end fitting against the rail B, which is bent of the proper curvature to allow of a smooth connection, as is shown in the drawing. C is the short and pointed switch-rail joined with fish-bars to the siding-rail. *a a a* are plates passing under the switch-rails and under the rails of the track, these plates serving as bearings for the switch-rails, and so bent as to prevent the switch-rails from jumping. D is a bridle connecting the two switch-rails. E is a rod connecting the long switch-rail A with the spring-lever G at the target, said target being similar in construction and

mode of operation to the one in Letters Patent No. 145,013, granted to me November 25, 1873.

The operation of the switch is as follows, viz.: should the cars be moving on the main track in the direction indicated by the arrow, and the switch opened for the siding, the flange of the wheel that is on the main rail F will pass between that rail and the short switch-rail C, forcing the switch-rail from the rail F, and, through the medium of the bridle, force the switch-rail A to the main rail B. Should the cars be on the siding and the switch closed for the main track, as shown in the drawing, and the cars moving to the main track, the flange of the wheel presses the long switch-rail A from the rail B, and, at the same time, through the switch-rails' connection, (the bridle,) forces the switch-rail C to the main rail F.

The main object in the construction of this switch is that the flange of the wheel shall act as a wedge or lever in operating the switch, and that the switch cannot be broken or the cars thrown from the track if the switch-rails are misplaced. The spring being strong enough to "throw" the switch; and yet to allow of the operation of the switch-rails by the flanges on the wheels.

I claim as my invention—

1. In a railroad-switch, the combination of the two pointed switch-rails A C, bridle, rod E, spring-lever G, and plates *a a a*, with the main and siding rails, as shown and described.

2. The plates *a a a*, in combination with the switch and main rails, substantially as shown and described.

THOMAS J. REYNOLDS.

Witnesses:

LEVI P. GRAHAM,
JNO. W. LYON.