# SAMUEL FRENCH.

## Improvement in Railroad-Switches.

No. 114,936. Patented May 16, 1871.

*Fig. 1.*

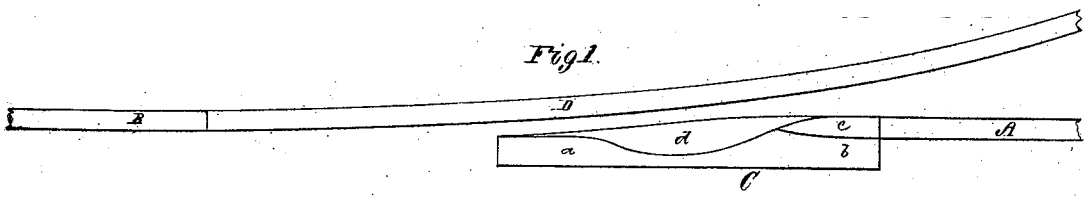


*Fig. 2.*

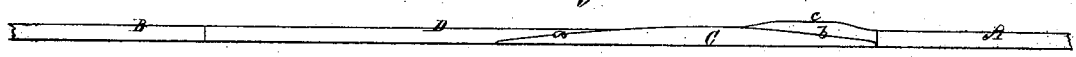


*Fig. 3.*


Witnesses.

S. N. Piper

L. N. Moller

S. French.

by his attorney.

R. Wallace

# United States Patent Office.

SAMUEL FRENCH, OF BOSTON, ASSIGNOR TO SIDNEY ALLEN, OF NEWTONVILLE MASSACHUSETTS.

Letters Patent No. 114,936, dated May 16, 1871.

## IMPROVEMENT IN RAILROAD SWITCHES.

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

*To all persons to whom these presents may come:*

Be it known that I, SAMUEL FRENCH, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful or improved Railway Switch; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a top view of a main-line rail and turn-out rail with my said switch.

Figure 2 is an inner side elevation of the same.

Figure 3 is a transverse section of the switch taken at its vertex.

In the drawing—

A and B denote the main rails, with the switch C disposed between them and aside of the turn-out rail D, which is curved from the inner end of the rail A and arranged with the rail B, in manner as shown.

The said switch is a solid piece of metal, formed with slopes *a b*, extending in opposite directions lengthwise of it from or near its middle. It also has an elevated guide or extension, *c*, of the main rail A, and it is made with a transverse slope, *d*, extending from the middle of its vertex and down toward the turn-out rail, in manner as shown.

This switch is intended specially for street or horse-railways, and disposes with the common movable tongue-switch, which requires to be moved away from the turn-out rail before a carriage can run from the main track to and upon the turn-out.

With the stationary switch C made as described and represented, a wheel, on running swiftly over the switch, will keep on the main line or track; but when run slowly the flange of the wheel, as soon as it may mount upon the transverse slope, will slide laterally down such so as to pass into the space between the switch and the turn-out rail, thereby causing the carriage to take the turn-out.

While the flange of the wheel is kept on either longitudinal slope of the switch the carriage will be preserved on the main track; but by running the wheel-flange off one of the long slopes and upon the transverse slope, the flange, by the weight of the carriage, will be caused to slide down the latter so as to deflect the carriage upon the turn-out.

I claim as my invention—

The switch as provided with the longitudinal and transverse slopes *a b d* and the guide or extension *c*, all arranged substantially as described and represented.

SAMUEL FRENCH.

Witnesses:
R. H. EDDY,
J. R. SNOW.