

L. MURPHY.
Railway-Frog.

No. 202,455.

Patented April 16, 1878.

Fig. 1.

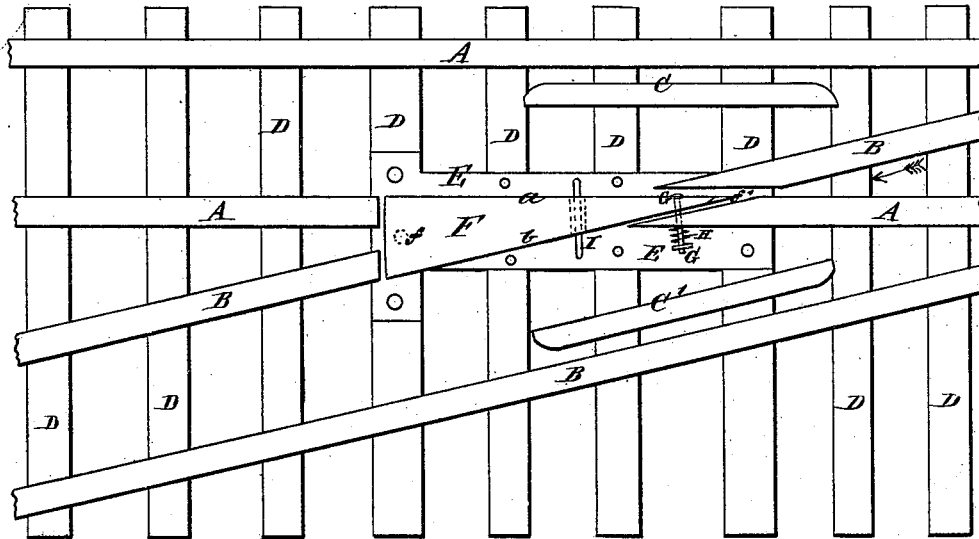
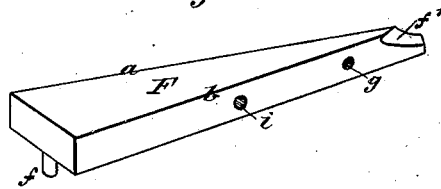


Fig. 2.



WITNESSES:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

LEANDER MURPHY, OF GREENSBURG, PENNSYLVANIA, ASSIGNOR TO
HIMSELF AND EDWARD C. HOUGH, OF SAME PLACE.

IMPROVEMENT IN RAILWAY-FROGS.

Specification forming part of Letters Patent No. **202,455**, dated April 16, 1878; application filed
March 8, 1878.

To all whom it may concern:

Be it known that I, LEANDER MURPHY, of Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and Improved Railroad-Frog, of which the following is a specification:

The object of my invention is to provide a cheap and simple railroad-frog, not liable to get out of order, and which, in its normal position, will keep the main track open, while yielding sufficiently to the side pressure of the flange of the railroad-wheels to open the side track for a thereon passing train.

The invention consists in a railroad-frog in which the tongue is pivoted to its bed-plate, and its point is held to one of the main rails by a spring to keep the main track open, as will be hereinafter described.

In the accompanying drawing, Figure 1 is a plan view of a main track and side track with my improved railroad-frog applied. Fig. 2 is a perspective view of the tongue of the frog.

Similar letters of reference indicate corresponding parts.

A are the rails of the main track. B are the rails of the side track, crossing the main track at a slight angle. C C' are the guard-rails. D are the sleepers. E is the bed-plate of the railroad-frog. F is the tongue of the frog, made wedge-shaped to suit the angle between the tracks, and pivoted at its broad end by a bolt, *f*, to the bed-plate E, in such a position that, by a slight lateral oscillation on the pivot *f*, either the edge *a* or the edge *b* may be brought in exact line with the inside of the rail A of one side of the main track, or the rail B of one side of the side track, respectively.

Through the tongue F, near its wedge-point, and through the end of the adjoining rail A, (of the main track,) pointed to the same angle as the wedge, are made two holes, *g*, in line with each other, through which is fitted a bolt, G, surrounded by a spiral spring, H, interposed between the pointed rail A and the nut on the bolt G, in such a manner that by the expansion of the spring H the tongue F,

when not acted upon by the flange of a passing wheel, will always be kept close to the said rail A, to keep the main track open for passage of the flanges of the car-wheels between the edge *a* of the tongue F and the adjoining edge of the pointed end of the rail B of the side track.

The upper surface of the point of the tongue F is notched at *f'* in the edge adjoining the rail A, so as to be wedged apart from the latter by the flange of the wheels passing in the direction of the arrow on the side track.

The distance between the edge *b* of the tongue F and the opposite rail B of the side track is a little shorter at the point of the tongue than at its base, so that the wheel-flanges of a train moving on the side track in a direction opposite to that indicated by the arrow will impinge upon the edge *b*, and move the tongue on the pivot *f* against the pressure of the spring H, to separate it from the pointed end of the rail A sufficiently for the passage of the said flange of the wheels.

I is a staple or guide-pin secured to the bed-plate E, and inserted through a hole, *i*, in the tongue F, to steady and guide the latter in its lateral movements.

As the tongue can be moved only a certain distance from the line of the main track, it will prevent persons from widening it out to run the cars off the main line; and should it be wedged for such purpose, the guard-rail C would retain the wheels of one side of the train on the rail A nearest to the guard-rail C, and thus prevent the cars from running off the track.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A railroad-frog in which the tongue F is pivoted to its bed-plate E, and its point is held to one of the main rails A by a spring, H, to keep the main track open, substantially as shown and described.

LEANDER MURPHY.

Witnesses:

JOHN L. HACKE,
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