# P. B. Tyler.

## Railroad Switch.

No. 4,511.

Patented May 9, 1846.

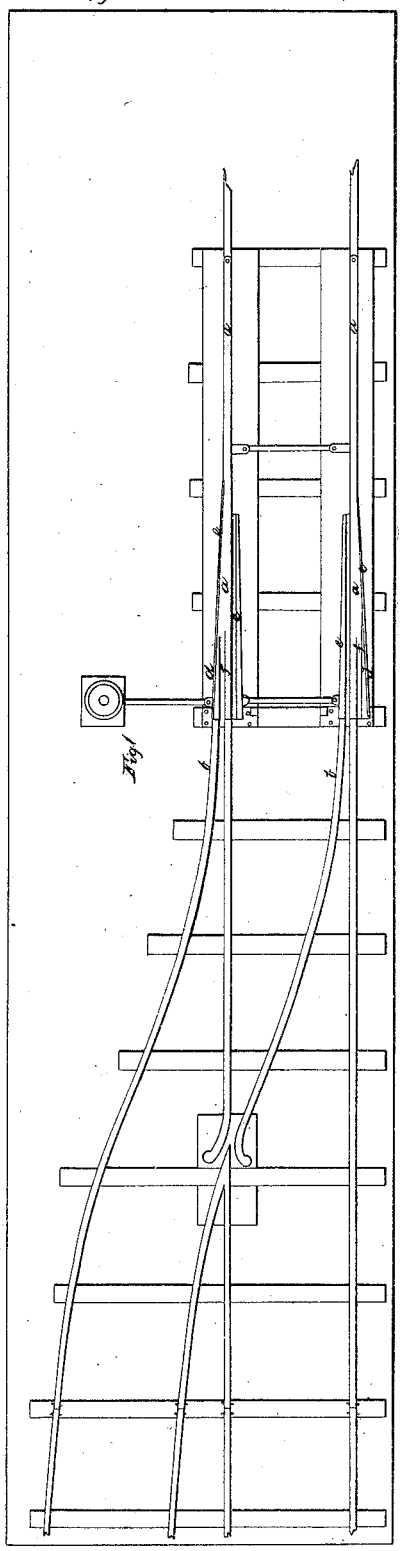

Fig 1

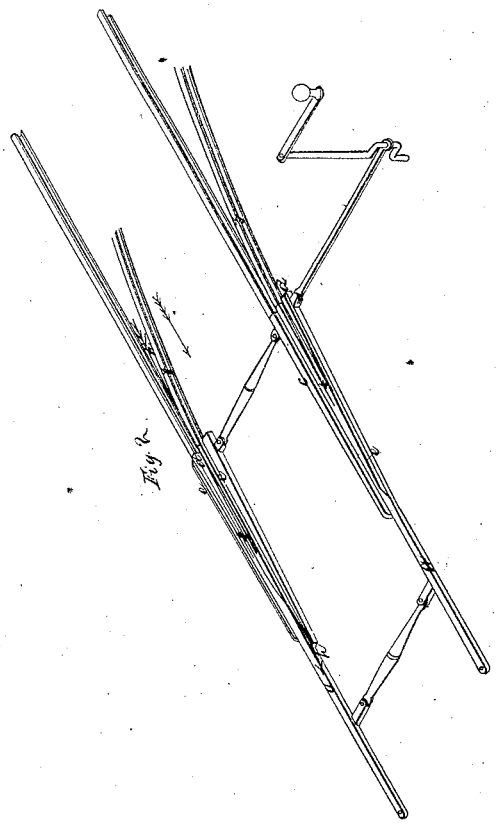

Fig 2

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

# UNITED STATES PATENT OFFICE.

PHILOS B. TYLER, OF NEW ORLEANS, LOUISIANA.

## SAFETY-SWITCH FOR RAILROADS.

Specification of Letters Patent No. 4,511, dated May 9, 1846.

*To all whom it may concern:*

Be it known that I, PHILOS B. TYLER, of New Orleans, in the State of Louisiana, have invented a new and useful Improvement in Railroad-Switches; and I do hereby declare that the following is a full, clear, and exact description, in which reference is had to the accompanying drawing that makes a part thereof, in which—

Figure 1, is a plan of the road with the turn out; Fig. 2, an isometrical view of the switch.

The nature of my invention consists in constructing the movable part of the switch with an additional branch rail, between which and the true switch there is an inclined plane and a guard on the outside, so that when the switch is set wrong, the cars can not run off the track.

The track as shown in Fig. 1, is constructed in any of the ordinary ways; it has a long movable switch (*a*, *a*,) connected with it at the turn out (*b*); at the movable end of this switch, there is attached a short rail (*c*) to the inside of each of the main rails of the switch, which are joined to, and are parallel with said rails; these short rails are gradually tapered off as they recede from the removable end, as shown in the Fig. 1.

Outside of the main-rails (*a*) there is a branch (*d*) to the main rail, which is formed by a gradual enlargement of the rail near the movable end till they are separated, having an inclined plane (*f*) between them which runs off gradually from the surface of the rails where they separate to a depth sufficient to allow the flanch of the car wheels to pass over it and run up on to the top of the rail, when the switch is placed wrong. Outside the branch rail (*d*) there is a guard (*e*) which rises above the face of the rail, as an additional security.

By the above arrangement it will be seen, that if the cars are coming down the main track in the direction of the arrow, Fig. 2, and the switch was set for the side track by accident, the flanch of the right hand wheel, would be made to run up the inclined plane (*f*) which would cause the cars to incline to the left and the flanch would roll over the top of the main rail (*a*) and down on the inside thereof, bringing the tread of the wheel properly on to the track as shown by the red line (*h*) which indicates the course of the flanch. If the relative position of the switch and cars were changed, that is, if the switch was set to the main track and the cars were running on to it from the side track, the effect would be the same.

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

The construction of the switch as herein described, that is to say, the addition of the branch (*d*,), to the main rail (*a*,) with the inclined plane (*f*,) for the flanch of the wheel to run up on between them, and in combination therewith, the short rails (*c*,) and guard (*e*,), arranged substantially in the manner, and for the purpose above set forth.

PHILOS B. TYLER.

Witnesses:

JOHN BROOKS,

WALTER H. PETERS.