

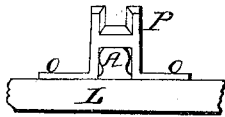
*N. Pullman.*

*N<sup>o</sup> 54,478.*

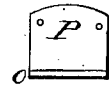
*Railroad Switch.*

*Patented May 1, 1866.*

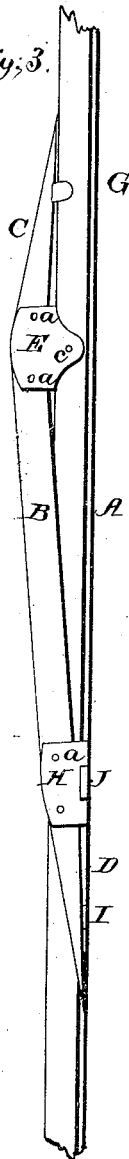
*Fig. 5.*



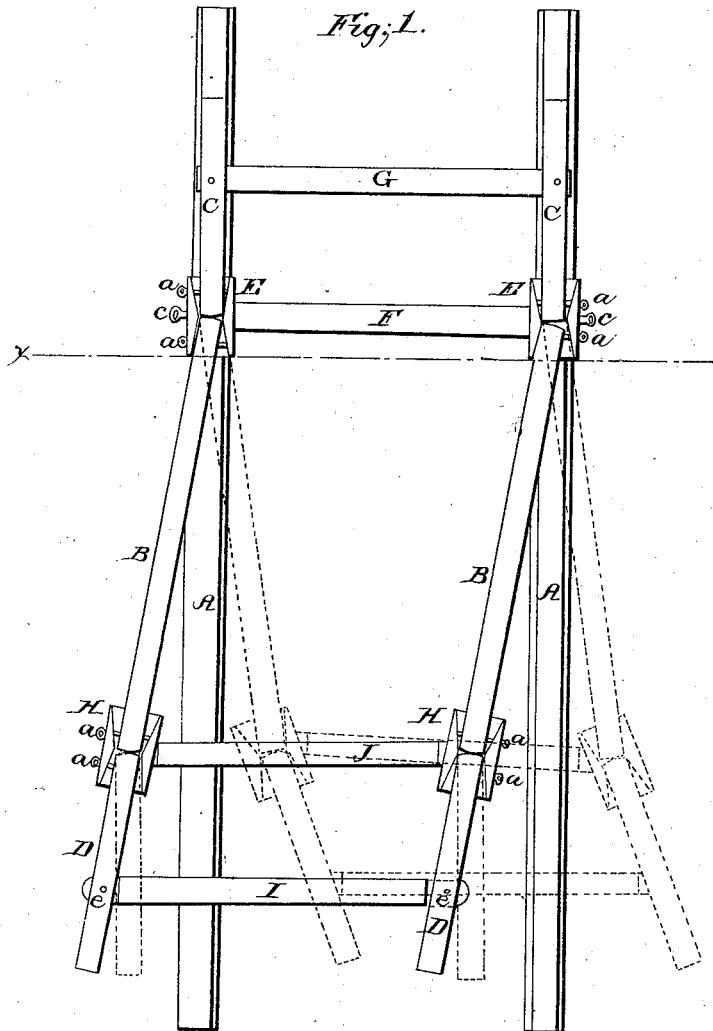
*Fig. 6.*



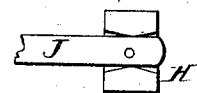
*Fig. 3.*



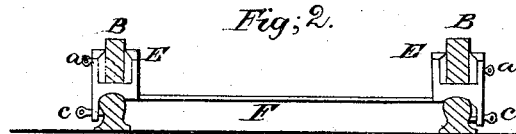
*Fig. 1.*



*Fig. 4.*



*Fig. 2.*



*Witness*

*Chas. Thomas*

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N. Pullman  
By W. Dodge  
Atty*

# UNITED STATES PATENT OFFICE.

NATHANIEL PULLMAN, OF NEW OREGON, IOWA.

## IMPROVED SWITCH FOR REPLACING CARS UPON TRACK.

Specification forming part of Letters Patent No. 54,478, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, NATHANIEL PULLMAN, of New Oregon, in the county of Howard and State of Iowa, have invented certain new and useful Improvements in Railroad-Switches for Replacing Cars upon the Track; and I do hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon.

Figure 1 is a plan view of a section of the railroad-track with my switch applied ready for use. Fig. 2 is a transverse section of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a side view of the same; Fig. 4, an under plan view of a portion detached; and Figs. 5 and 6 are views of a modification of a portion of the same, similar letters in each of the figures indicating like parts.

The nature of my invention consists in constructing a jointed section of the track in such a manner that it can be readily transported, and so applied to the permanent track that cars which have been displaced or thrown off may be run upon one end of the switch resting on the ground, and from thence run onto the track, the switch being so jointed that it can have one end moved to either side of the track, as may be necessary, while the other end remains securely attached thereto.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

A represents the rails of an ordinary railway-track. B represents two bars, which may be of any desired length and of the requisite strength to support the cars passing over them. At one end these rails or bars B rest in a shoe, E, the form of which is clearly shown in Figs. 1 and 2. These shoes are attached permanently to a bar, F, one at each end, so that when placed on the track one of the shoes E will rest firmly upon each of the rails A. The shoes E have a flange projecting down alongside of the rail A, and through this flange a set-screw, *c*, passes, which serves to clamp the shoes firmly to the rail, as shown in Fig. 2. A slotted hole is made transversely through each end of the bar B, through which a pin or bolt, *a*, passes, securing the rail B to the shoe E at one end and to the shoe H at the opposite end, as shown in Figs. 1 and 3, the shoes H

being constructed similar to E in all respects, except that they have no downward-projecting flange and are pivoted to the bar J so as to permit them to turn thereon, as shown in Fig. 4.

It will be observed that in all cases the recess in the upper portion of the shoes, in which the rails of the switch rest, are so beveled or inclined on their sides as to permit the bars B and D to be moved around at their opposite ends to the right or left, as may be desired, the slotted holes through which the bolts *a* pass permitting them to be so moved. At the rear end of rails B a short beveled or wedge-shaped piece of rail, D, is secured by means of the shoe H in a similar manner, they being capable of a lateral movement independent of B, as shown by the red lines in Fig. 1. These short rails or bars D are united by a cross-bar, I, which has a pin, *e*, fitting loosely in a hole in D, so that the latter may, either of them, be detached at any time as may be necessary to place them properly to receive the wheels of the car. By having the rails of the switch jointed at their rear part, as shown, I am enabled to bring the extreme end of the rails D in proper position to receive the wheel of a car when the latter has become displaced and stands with its wheels close alongside of the rails, which cannot be done with switches having no joint in the rail; and this feature constitutes one of the most important improvements upon my device as originally patented.

In front of the bars B are secured two other wedge-shaped pieces, C, their rear ends being secured to the shoes E by a bolt, *a*, in such a position as to abut against the front ends of rails or bars B, as shown in Fig. 1. Near their front ends these bars C are held by a cross-bar, G, which has its ends bent down so as to clasp the outside of the rails A, and thus prevent the bars C from being moved sidewise and becoming displaced.

If desired, the front ends of bars B may be bent, as described in my patent of May 25, 1858, for the purpose of enabling their rear ends to be moved farther away from the permanent track; but if so constructed it will necessitate the turning of the rails B upside down when placed on the opposite side of the track.

In Fig. 5 I have shown the shoe E so modi-

fied as to dispense with the use of the cross-bar F. In this case the under side of the shoe is recessed at the center so as to straddle the rail A, and has a flange, o, projecting laterally from each side and resting on the cross-tie L, by which it is held firmly in position and kept from turning or slipping off the rail A.

To use my improved apparatus it is secured to the track in the manner shown in Fig. 1, its rear end being placed directly in front of the wheels of the car that has been displaced, the joints permitting it to be adjusted as may be desired for that purpose, when the car is moved forward until the front wheels rest upon the bars B. As the rear wheels will be apt to not follow exactly in the track of the front wheels, the rear end of the short rails D are then moved so as to receive the rear wheels, when the car may be moved forward and made to pass onto the track, the beveled pieces C

serving to let the car down gradually and without injury upon the permanent rails A A.

It is obvious that the rear pieces, D, may be dispensed with, if desired, and that the rails B be made of any desired length; but the apparatus is not considered so perfect when the rails D are omitted.

Having thus fully described my invention, what I claim is—

1. The shoes E, attached to the cross-bar F, in combination with the beveled rails C and the movable rails B, all arranged to operate as shown and described.

2. In combination with the rails B, the chair H and the supplementary rails D, arranged to operate as and for the purpose set forth.

N. PULLMAN.

Witnesses:

W. C. DODGE,

CHAS. H. THOMAS.