

J.C. Mather

Car Replacer

Nº 19,146.

Patented Jan. 19, 1858.

Fig. 4.

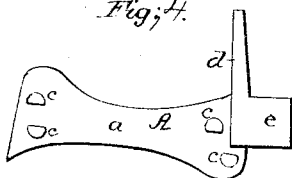


Fig. 3.

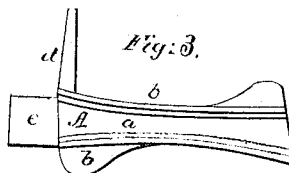


Fig. 6.

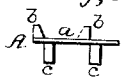


Fig. 5.

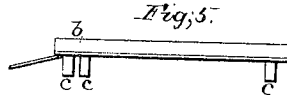


Fig. 1.

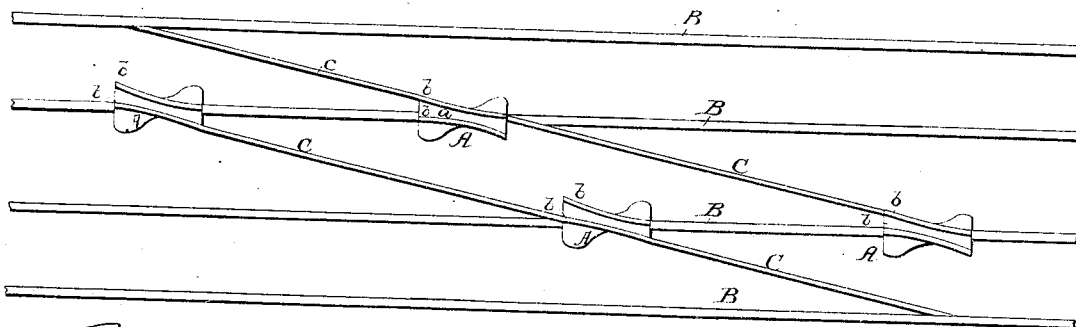
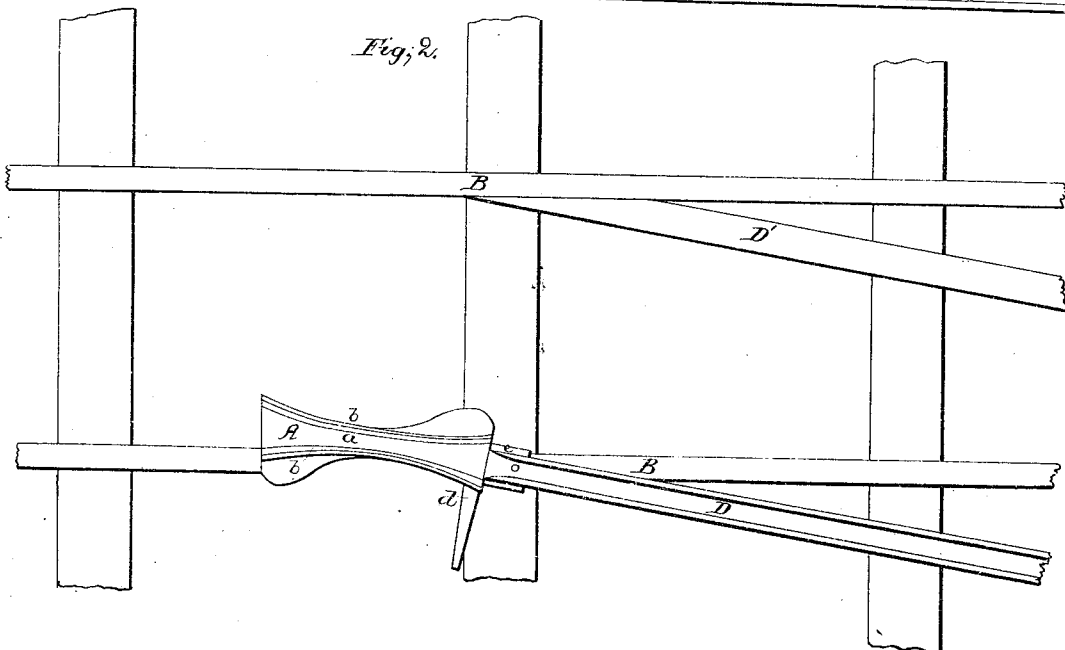


Fig. 2.



UNITED STATES PATENT OFFICE.

JOHN C. MATHER, OF NEW YORK, N. Y.

PORTABLE RAILROAD-SWITCH.

Specification of Letters Patent No. 19,146, dated January 19, 1858.

To all whom it may concern:

Be it known that I, JOHN C. MATHER, of the city, county, and State of New York, have invented a new and useful Improvement in Portable Switches for Replacing Cars Upon the Track or Removing Them From One Track to Another, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1, represents a plan of two railroad tracks to which my improvement is applied for the purpose of removing the cars from one track to another. Fig. 2, a similar view of a single track with my improvement applied thereto for the purpose of replacing the cars upon the track; and Fig. 3, represents a plan of my guiding frame. Fig. 4, a bottom view, Fig. 5, a side elevation, and Fig. 6, an end view of the same.

On double tracks it frequently happens, that trains because of some obstruction upon or derangement of the road can not proceed to their destination without returning to the nearest station or switch to take the other track. This plan causes great inconvenience and loss of time to the train and is not unfrequently the sources of serious accidents arising from collisions with other trains proceeding in the opposite direction. In most instances the obstruction is but partial or for a short distance, so that could the train be placed on the same track immediately beyond the difficulty, much valuable time might be saved and great inconvenience and danger avoided.

To provide suitable means to effect this purpose is the main object of my invention which consists in the application to the rails of the track of a switch of peculiar construction, capable of being carried on the tender of the locomotive or in any other convenient place on the train. This implement is so constructed and arranged as to be easily applied and adjusted to the rails for the purpose of switching the train of cars from one track to another, on which it can proceed until the obstruction is passed, when by being again adjusted, the train can be switched back upon the original track on which they can proceed to their destination without danger of collision. The same means are also intended to be used to replace cars upon the track when casually thrown therefrom, or they may be used for the purpose of re-

moving a car or cars from the track in the event of an accident to their wheels or from any other cause. Various devices have therefore been used for the purpose of replacing cars upon the track but none of these are suited or capable of being used for the purpose of switching them from one track to another or removing a car from the track. The implement invented by me for this purpose consists of a guide plate on which two ribs or rails are formed, which when mounted upon the rail run diagonally across it, that is to say, one end of these rails is made to project over the outside of the rails, while the other projects over the inside, so that when suitable rails are applied to their ends, the cars can be run off from one track to another, or a train of cars replaced upon the track should they happen to run off.

To enable others skilled in the art to make and use my invention I will now proceed to describe its parts in detail.

In the accompanying drawings A represents a metallic frame consisting of a plate (a) of sufficient size and thickness to insure strength and durability, on the upper side of which are formed two curved rails (b) slightly beveled on their inner sides, their convex sides being turned toward each other, that is to say, these rails at or near their middle commence to diverge from each other in a curved line at both ends; on the under side of the frame are secured two or more pairs of legs (c) of a length equal to the height of the rails (B) from the ground, so that when the frame is mounted upon the track the plate (a) will rest upon the rail and the feet of the legs upon the ground.

The legs (c) are so arranged upon the under side of the plate (a) that when the latter is mounted upon the rail, the groove shall run diagonally across the latter, the ends of the groove being in a line respectively with the inner and outer sides of the rail, by means of which and suitable rails (c) to connect these rails together as shown in Fig. 1, the cars can be transported from one track to another. Or when a car should happen to run off the track one set of wheels being on the outside of the outer rail and the others between the two, by placing the plate (A) on the outer rail, and arranging a grooved rail immediately in front of the outer wheels, and connecting its other end with the plate, and which for this purpose is

provided with a lip (*e*) at one of its ends upon and to which is secured the other end of the grooved rail (*D*); one end of another rail or beam (*D'*) is then arranged in front of the other wheels, its other end being brought into connection with the side of the inner rail of the track thus forming a switch by which a car or train of cars can be readily replaced upon the track, in this instance but one bed plate is required for this purpose, but should the car have been thrown from the track entirely then two will be required, both of which are arranged upon the outer rail. For this purpose however one could be made to answer by placing it opposite the inner front wheels first, and then transposing it to the outer ones, but as a general rule two will be preferred as it will save much time and trouble. At the end of the plate (*A*) is secured an arm (*d*) projecting horizontally from its outer side, this arm prevents any tendency of the plate to rock as the car comes upon or rolls over it. In order to adapt the plate to the attachment of the feet so that the groove shall run diagonally across the rail, its ends are widened sufficiently to afford an attachment for a standard at each end.

In transporting a train of cars from one track to another four of these grooved plates are generally used in the manner shown in Fig. 1, two on each of the inner rails, they being connected together by beams or rails (*C*); those placed between the plates being of a height equal to that of the ribs (*b*) formed on the plate, while the others arranged between the plate and rail are merely of that height at the end next the plate, from which point they gradually incline downward to the point of connection with the track rail.

On the side of these rails may be formed legs in which a hole is formed by means of which they may be temporarily spiked down to the ties of the track to prevent their being displaced as the cars roll over them. These rails as well as the grooved rail may be hinged if desired for the purpose of rendering them more portable.

By this plan cars can be placed upon the track or removed from one to another, and temporary switch removed, and again placed upon the cars in a shorter time than and with less trouble than they can be run back to the next station or switch and there changed. This plan moreover is particularly serviceable when one of the tracks has been injured or an obstruction in the way as the cars can be moved upon the other track until they have passed the difficulty and again switched upon the other track, on which they can proceed to their destination without danger of being brought in collision with another train. Or in cases of a single track they may by it be switched off until the other train passes and again replaced to proceed as before.

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

1. A portable switch constructed in the manner substantially as and for the purposes set forth.

2. I also claim the arm (*d*) as arranged for the purposes set forth.

In testimony whereof I hereunto set my hand.

JOHN C. MATHER.

Witnesses:

W. GERKI,
C. MARTLES.