O. W. Marshall,

Railroad Switch,

No. 32,573. Patented June 18, 1861.

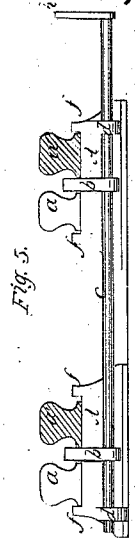


Fig. 5.

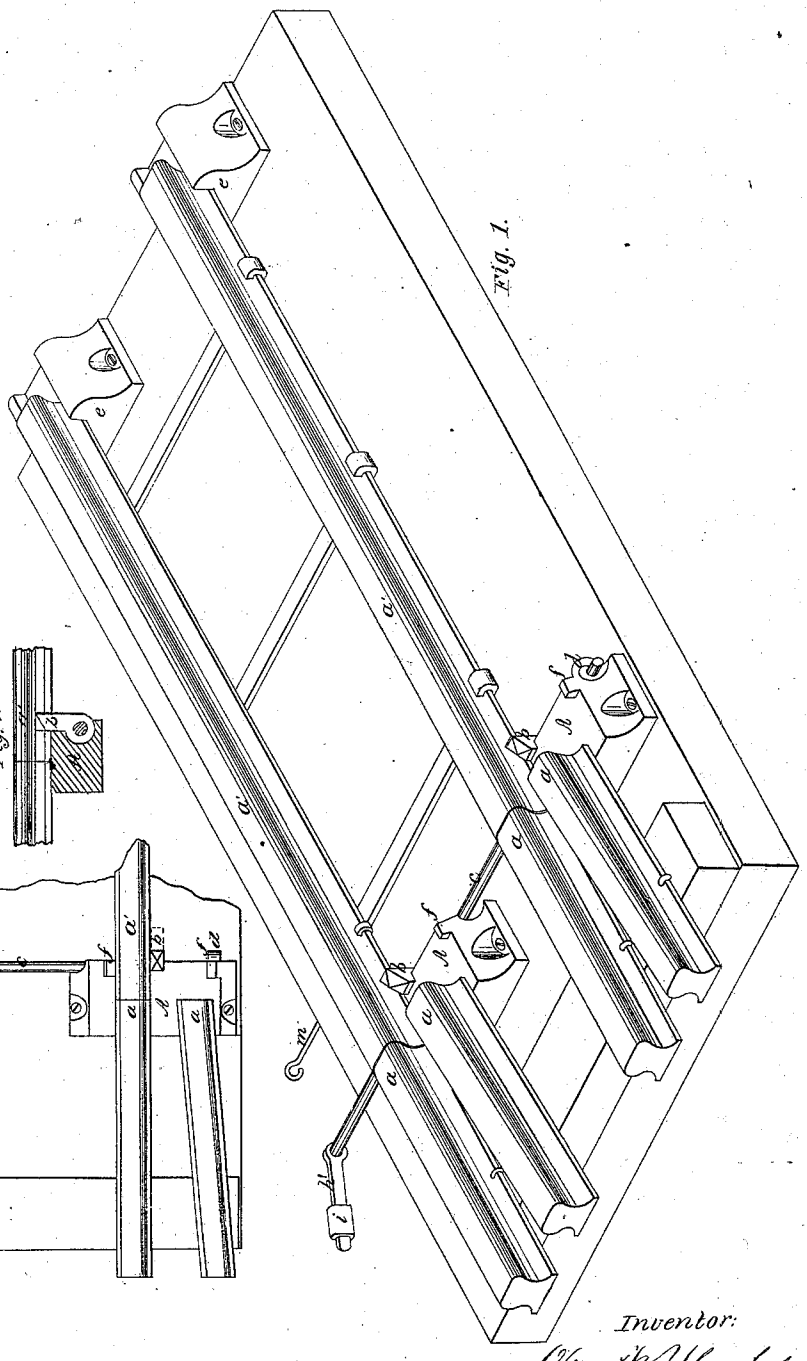


Fig. 1.

Fig. 3.

Fig. 4.

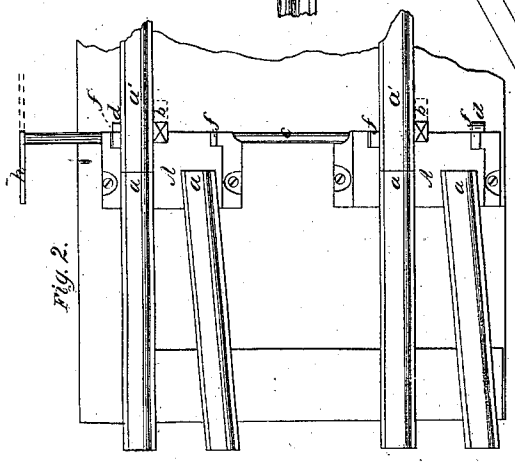


Fig. 2.

Witnesses:
Edmund Mr Bliss
Jeremy Mr Bliss

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UNITED STATES PATENT OFFICE.

OLIVER W. MARSHALL, OF WINDSOR LOCKS, CONNECTICUT.

RAILROAD-SWITCH.

Specification of Letters Patent No. 32,573, dated June 18, 1861.

To all whom it may concern:

Be it known that I, OLIVER W. MARSHALL, of Windsor Locks, county of Hartford, and State of Connecticut, have invented a certain new and useful Improvement in the Mode of Securing the Movable Part of the Rails or Track for Transferring a Car from One Track to Another; and I do hereby declare that the same is described and represented in the following specification and drawings, and to enable others skilled in the art to make and use the same I will proceed to describe its construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this improvement consists in the mode of securing the movable part of the rails for transferring a car from one track, or rail to another, commonly called a "switch," by means of a vibrating shaft, and dogs, made or secured thereon, arranged, and properly secured, in, or to the chair or head block, on which the other tracks (two or more) are placed, and secured in the ordinary way, so that when the shaft is turned in one direction, the rails are free to move in either direction, so as to conduct a car from one track or rails, onto another. Then by turning the shaft in the opposite direction, the dogs will therewith turn into a perpendicular position, into their seats, and thereby secure the rails in line with the rails or track, onto which the car is to be moved.

In the accompanying drawings Figure 1, shows an isometrical view, by which its operation will be seen at one sight. Fig. 2, shows a top view and section of the movable rails. Figs. 3 and 4, are end sections of the chairs or head blocks, and dogs, one dog (Fig. 3) in a horizontal position, so that the rails may be freely moved, and the other (Fig. 4) in a perpendicular position, holding the rails firmly in line with the rails, or track, onto which it may be desirable to transfer a car &c. Fig. 5, is an end view, showing the shaft, the boxes, in which the shaft is secured, the dogs made, or secured, on the shaft, and in their openings, in the chair, or head block, which prevents their sidewise motion,—and holds the rails in place against the fixed dog, and the end of a duplicate rail, or track.

a, are T shaped rails in common use. The construction, arrangement, and the mode of securing them in place for use, form no part of what I claim as my improvement. *a'*, are two lengths of T rail secured together by cross bars, or ties (in the ordinary way), so as to allow a zig-zag motion, one end of said rails being secured in chairs *e*, the opposite end resting upon, and moves back and forth, between the fixed dogs *g*, by means of device such as ordinarily used for that purpose.

A, are chairs, or head blocks, for holding the rails, made (so far as relates to securing and holding the rails in a fixed position) much in the ordinary way. In one edge of the said chair or head block, is formed a curve, or opening for the vibrating shaft *c*.

d, are boxes made, one or more, on each chair, or head block A, or made separate and secured on the edge of said chair &c. by bolts and screws.

c is a vibrating or oscillating shaft secured in the boxes *d*.

b are dogs secured on the shaft *c*, by keys or other suitable ways, so that they shall be fixed, or become a part of the said shaft, and so that they shall turn into the openings *g*, thus securing the rails *a* firmly between the dogs *f* and *b*.

h, is an arm or lever, secured to the outer end of the shaft *c*, and by which the shaft *c* is vibrated or by which the dogs *b*, are held in a perpendicular position, or thrown down into a horizontal position, either of which positions is secured by means of a weight *i*, or its substantial equivalent.

I make the upper end of the dogs *b* inclined, or wedging, so that when the movable rails *a'*, are moved from one rail or track, nearly into a line with another rail or track, onto which it is desirable to transfer a car &c., by turning up the dogs *b*, made or secured on the shaft *c*, (by means of the weighted lever *h*, it, or, their equivalents) from a horizontal, to a perpendicular position (into their slits or openings *g*,) the incline or wedge end (of the dogs *b*) will strike against the edge of the movable rails, and incline, or wedge them against the dogs *f*, and in line with the rails or track *a*, thus firmly securing the movable rails *a'* between the dogs *b* and *f*, and in line with the rails or track *a*.

I am aware that various ways may be employed to oscillate the shaft, with the dogs *b*, in connection with the changing rod *m*, used to move the rails *c'*—(such however

I do not propose to describe as a part of my invention).

Now it will be seen that when it is desirable to change a car from one track to another, it is only necessary, to turn the dogs *b*, down, (which may be done at a considerable distance from the rails, and inside of a building if desirable—suitable provision being made to signal, or apprise the engineer that the rails are secured) and move the transfer rails *a'* from the one track to the other, and turn up the dogs into their seats, when the rails *a'* are again secured firmly between the dogs *b* and *f*, and in line with the rails *a*. Thus I am enabled to secure the traverse rails *a'*, firmly in place in the most simple, efficient, and reliable manner, thereby securing a great advantage over others now in use, from the additional safety, both of life and property, of the employed and the public.

I believe I have thus described my improvement in such a manner as to enable a mechanic skilled in the art to make and use the same.

I do not claim the use of arms arranged to traverse on a shaft with the rails, as shown in D. H. Dottuer's application of 1855, as I use a construction and arrangement far more simple than his.

What I claim therefore and desire to secure by Letters Patent is—

The employment of the shaft *c*, dogs *b*, arranged in connection with the chairs or head blocks A, and rails *a*, and *a'*, substantially in the manner as and for the purpose described.

In testimony whereof I have hereunto affixed my name and seal this 18 day of January 1860.

OLIVER W. MARSHALL. [L. S.]

Witnesses:

EDWARD M. BLISS,

JEREMY W. BLISS.