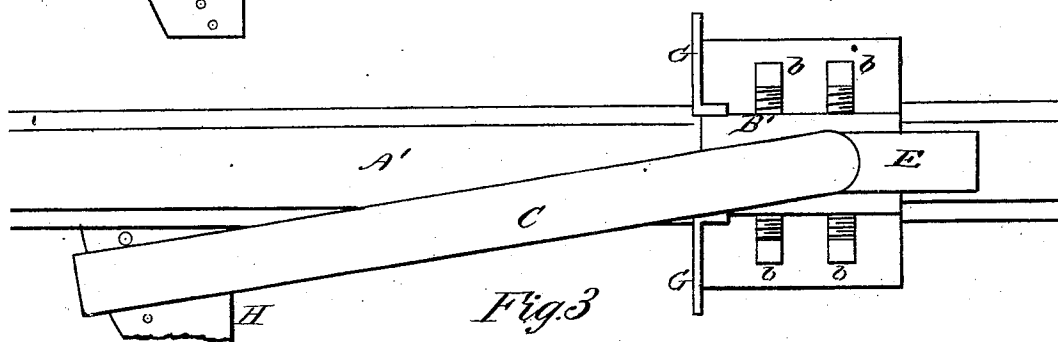
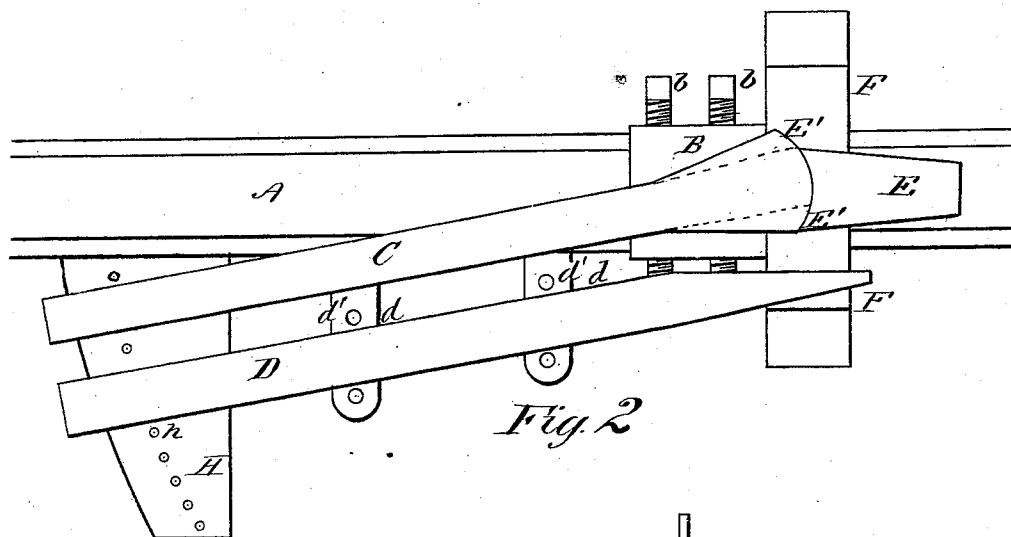
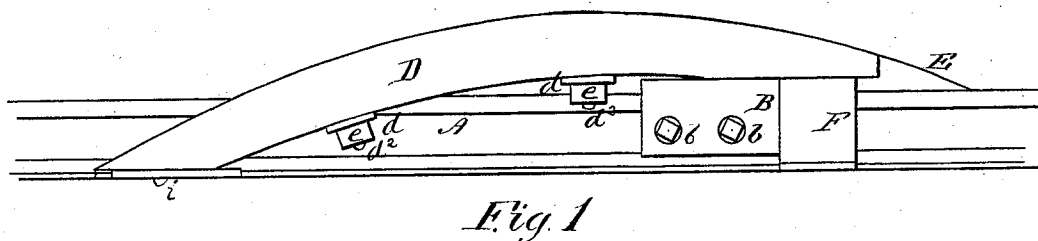


W. H. McLEAN.
Car-Replacer.

No. 159,697.

Patented Feb. 9, 1875.



Witnesses
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J B Connolly
By
William H. McLean
Connolly Bros
Inventor
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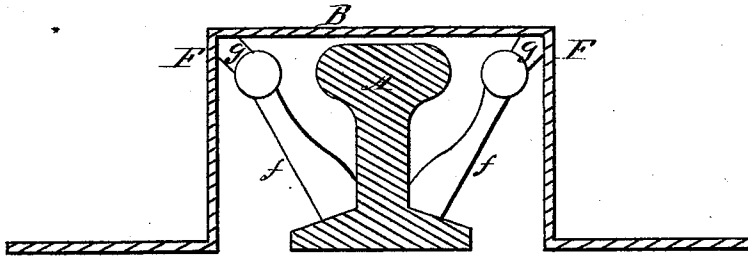


Fig 4

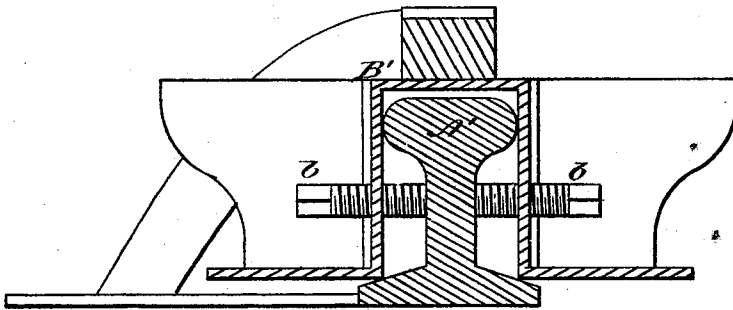


Fig 5

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UNITED STATES PATENT OFFICE.

WILLIAM H. McLEAN, OF MABERLY, MISSOURI.

IMPROVEMENT IN CAR-REPLACERS.

Specification forming part of Letters Patent No. **159,697**, dated February 9, 1875; application filed January 11, 1875.

To all whom it may concern:

Be it known that I, W. H. McLEAN, of Mabery, in the county of Randolph and State of Missouri, have invented a certain new and useful Railroad-Car and Engine Replacer; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side view of my invention. Fig. 2 is a plan view, and Figs. 3 and 4 are vertical transverse sections, of the two rail-bridges.

The object of this invention is to provide improved means for replacing displaced rolling-stock upon the rails of a railway, and for transferring cars and engines from one line of track to another. Said invention consists in the novel construction and combination of parts having reference to the employment, in connection with the main track, of a temporary switch, comprising rail-bridges and clamps, adjustable inclined rails and guides, and the devices appertaining thereto, all as hereinafter specified and claimed.

Referring to the accompanying drawings, A A' designate the rails of a line of track, to which is applied my improvement. B B' designate the rail-bridges, constructed and arranged so as to embrace the top and sides of the rails, to which they are secured by means of clamping-screws *b b*. C C designate the rails of the switch, swiveled upon and to the rail-bridges, and so curved and inclined thence that their lower ends reach the ground beside the rails. D represents a flange-guide, of which one may be employed in connection with each rail. E designates wheel-guides, secured to the bridges at their front or forward parts, and formed with inclined surfaces, extending toward the tops of the rails.

The wheels of the car or engine are replaced by conveying them upward upon the rails C C. The flange-guide D, as its name indicates, guides the wheel-flanges, so as to set the wheels true upon the rails. The flange-guide is secured to its rail by means of pivoted plates or ties *d* on the under sides, which allow the

guides to be adjusted to suit the position of the switch-rails with reference to the main rails. The guide is adjustable also laterally to different distances from the switch-rail, to adapt it to the condition or location of the wheels, and to allow the play which the wheels, when in a cramped position, will require.

When but one flange-guide is used, it is connected to the switch-rail, which lies between the two main rails. When two are used, their positions are between the two switch-rails.

Cars may be raised from either side of the main track, the switch-rails being arranged so that they may be swung from one side of the rails across to the other. When the positions of the switch-rails are changed the relative positions of the flange-guides must be altered, so as to have both between the two switch-rails. Said flange-rails are accordingly made detachable from the ties *d*, which have holes *d'* to receive, at different points of adjustment, the screw-rods *d''*, depending from the under sides of the flange-guides. Nuts *e* secure the guides in place. The ties *d*, after the removal of the guides, may be swung to the opposite sides of their rails underneath the latter.

E' E' designate steel points, applied to the forward ends of the switch-rails, to prevent rapid wear.

The use of these expedients I regard as a very important feature of my invention.

F F designate lateral extensions of the bridge B, for the support of the forward end of the flange-guide. *ff* are diagonal bracing-blocks, sustaining said extensions, and pivoted to brackets *g g*, secured within the angles of the latter. G G are lateral extensions of the bridge B', for supporting the switch-rail which carries the wheel-flange across the main rails.

A single pair of switch-rails is sufficient to replace a single pair of wheels. When a car or engine is entirely off, the two pair of switch-rails, at proper distance apart, should be used.

H H designate plates, having perforations *h*, to receive a stud, *i*, projecting from the under side of each switch-rail, near its lower end. These plates are designed specially for use when the ground is soft, and a support re-

quired for the lower ends of the switch-rails. The holes *h* are arranged in segmental rows, and at proper intervals, so that the required parallel relation of the switch-rails may be preserved.

It is obvious that by means of the devices described, rolling-stock may be removed from the rails as well as placed upon them; also, that cars and engines may be moved from one line of track to another.

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

1. The flange-guide D, in combination with the switch-rail C, said guide being adjustable

in relation to said switch-rail, and the latter pivoted to the rail-bridge of a car-replacer, substantially as described.

2. The bridge B, having the lateral extensions F and angle-braces *f*, substantially as described.

3. The ties *d d*, connecting the switch-rails and flange-guides, as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of December, 1874.

WILLIAM H. McLEAN.

Witnesses:

G. F. ROTHWELL,
C. I. PERKINS.