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Fig. 5.

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UNITED STATES PATENT OFFICE.

JEAN LAFITEAU, OF NEW ORLEANS, LOUISIANA.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 254,828, dated March 14, 1882.

Application filed August 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, JEAN LAFITEAU, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Car-Replacers, of which the following is a specification.

My invention consists in a car-replacing device which comprises two sloping and reversible plates, provided respectively with right and left hand holding hooks, and one having a pivoted reversible portion answering as a guiding and stop rail, the aforesaid plates being placed one between the rails for elevating the rim or flange of the inner wheel and the other outside the rails for elevating and guiding the outer wheel over a rail and down upon it into its normal position; and the objects of my invention are to replace a car upon its track, whether it is off on the left or right hand side thereof, without the necessity of providing two sets of plates, one for the right and the other for left hand side of the track, also without the aid of lifting machinery operated by the power of the hands or otherwise, and with very slight loss of time. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a top view of my car-replacer applied to a track, two wheels being shown upon the car-replacer. Fig. 2 is an elevation of the outer portion of the said car-replacer. Fig. 3 is an elevation of the inner portion of the same; and Fig. 4 is an end view of the car-replacer, shown in the same position as in top view, Fig. 1.

Similar letters refer to similar parts throughout the several views.

A A' represent the two continuous rails of a railroad-track, and B B' two wheels of a car-truck united by their axle b.

C is the inner and C' the outer portion of the car-replacer. The portion C of the car-replacer consists of a double wedge-shaped track-plate, c, having a broad and thin front end, c', and a narrow and high rear end, c², the highest point of which latter supports the rim or flange of the wheel B' at such altitude that the tread of the wheel or the wheel proper stands a little higher than the surface of the

rail A', in order to facilitate the pushing of said wheel upon the rail, as will be seen from the drawings.

From the highest point, c², the plate c slopes down, in order to let the wheel B down upon the rail gently and without shock. At suitable places hooks D are provided on the plate c, said hooks opening on their under side and projecting at either side of the plate, and by means of these hooks the plate is attached to the rail A', as seen. The disengaged or free hooks on the other side of the plate serve to attach the plate c to the opposite rail, A, in case the wheel B' is between the two rails.

The portion C' consists of a plate, c³, similar to that c of the other portion, and this is provided with hooks D, the same as the plate c, and for the same purpose. The highest point, c⁴, of the plate c³ is of the same height as the rails of the track, and at this point a swinging stop and guiding-rail, E, of tapering form, is pivoted to the plate c³ by means of a vertical pin, e, so that its narrower end e' can swing between the hooks D at the lower and broad end, e⁵, of the plate c³, while the portion e² at the other side of the pivot projects over the rail A and slopes down gradually to its surface.

The height of the stop and guiding-rail E at e' is less than the height of the flanges a of the wheels B B', but the height of the portion e², which covers the rail A, is greater, and thus the wheel B can easily be caused to mount the stop and guide-rail E, roll over the rail A, and finally mount the said rail, its flange being on the inner side of the same.

The stop and guiding-rail by being pivoted are reversible, and can be used on either side of the track for the purpose described.

The relative lengths of the plates c c³ is such that when their ends c' e⁵ stand opposite each other the high end c² of the plate c is opposite the point e⁶ of intersection of the inner edge of the rail E and the outer edge of the rail A, and thus the wheel B' can easily be guided upon the rail A' without jamming. Both portions C C' of the car-replacer are flared at their thinner ends to a sufficient extent, in order to intercept the wheel at a distance from its normal position or from its rail. The plate c³ is pro-

vided with a removable pin, *f*, which passes through the stop and guiding-rail E and plate *c*, and thus prevents the rail from moving upon the plate and causing inconvenience while being moved about.

Operation: When it is found that the wheels of a car have left their track, the car being stopped, the portion C of the car-replacer is placed inside of the track and the hooks D passed over the rail upon which the wheel inside the track has to be replaced. The other portion, C', is placed outside of the track, with its hooks D over the other rail. The ends *c'* *c*⁵ are now pushed under the wheels by moving the plates *c* *c*³ along the rails A A', and the rail E is swung outward. This done, the car is moved forward upon the said plates, and the outer wheel (outside of the track) will travel up the slope of plate *c*³ upon its flange *a*, which flange very soon comes in contact with the rail E, and is by the same guided laterally toward the proper rail. Soon after this lateral contact of the flange *a* and rail E the "tread" of the wheel will come in contact with the upper surface of the rail E, and the wheel will mount the said rail, relieving the flange of the weight of the car. The said wheel is now guided vertically over the main rail A and laterally into its normal position above the rail. It now runs down the end slope of the part *c*², and is located upon the rail A in its proper position. While the wheel B is thus guided toward its rail the opposite wheel, B', runs up the slope of the plate *c* by means of its flange *a*, and is crowded by the combined action of the wheel B and rail E toward its rail A', at which time the tread of the wheel stands at a higher elevation than the rail A', and remains so until the lateral adjustment of the wheels is completed, whereupon the flange *a* of the wheel B runs down the rear slope of the end part, *c*², and the wheel is properly located upon the rail A'.

Although the location of both wheels upon their proper rails may take place simultaneously, it is best to operate as just described, inasmuch as less strain upon the parts will be experienced. When more than two wheels have been displaced the foremost wheels are first replaced, as above described, and then the car-replacer is used for all the other displaced wheels without being removed until all are re-

placed. When the displaced wheels are found to be on the other side of the track the portions C C' are arranged so that C' will stand on the right-hand side of the track and the portion C on the inner side of the rail A, and in this reversed position the operation of replacing will be in accordance with the changed position of the parts, but effected in the same manner as described.

This car-replacer is applicable to all kinds of railways and tramways, and it will replace steam-cars, street-cars, and locomotives with equal facility and without the jerks and shocks common in the use of car-replacers of a different construction.

In practice each train will be furnished with the portions C C' of a car-replacer, which may be carried along on the tender, or in any other convenient way, ready and handy for immediate use.

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

1. The car-replacer herein described, comprising the horizontally-flaring and vertically-tapering portions C and C', the portion C consisting of a double wedge-shaped track-plate, *c*, having right and left handed hooks D D, a broad and thin front end, and a narrow and high rear end, *c*², which supports the flange of the car wheels, and thereby brings the tread of the wheel higher than the surface of the railroad-rail, and also having a sloping or downward inclination from its highest point, *c*², while the portion C' consists of a plate, *a*³, similar to the plate *c* of portion C, and provided with right and left handed hooks and a pivoted swinging rail, E, of tapering form, the portion *c*² of which projects over the railroad-rail and slopes down gradually to the top surface thereof, all substantially as and for the purpose described.

2. The combination of the removable pin *f*, pivoted rail E, and plate *c* of portion C', whereby the rail E is allowed to vibrate on its pivot when in use and may be fastened in position while it is out of use and is being transported, substantially as described.

JEAN LAFITEAU.

Witnesses:

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FELIX JONATHAN DEYFOUSE.