

G. R. DODD.
CAR REPLACER.

No. 563,223.

Patented June 30, 1896.

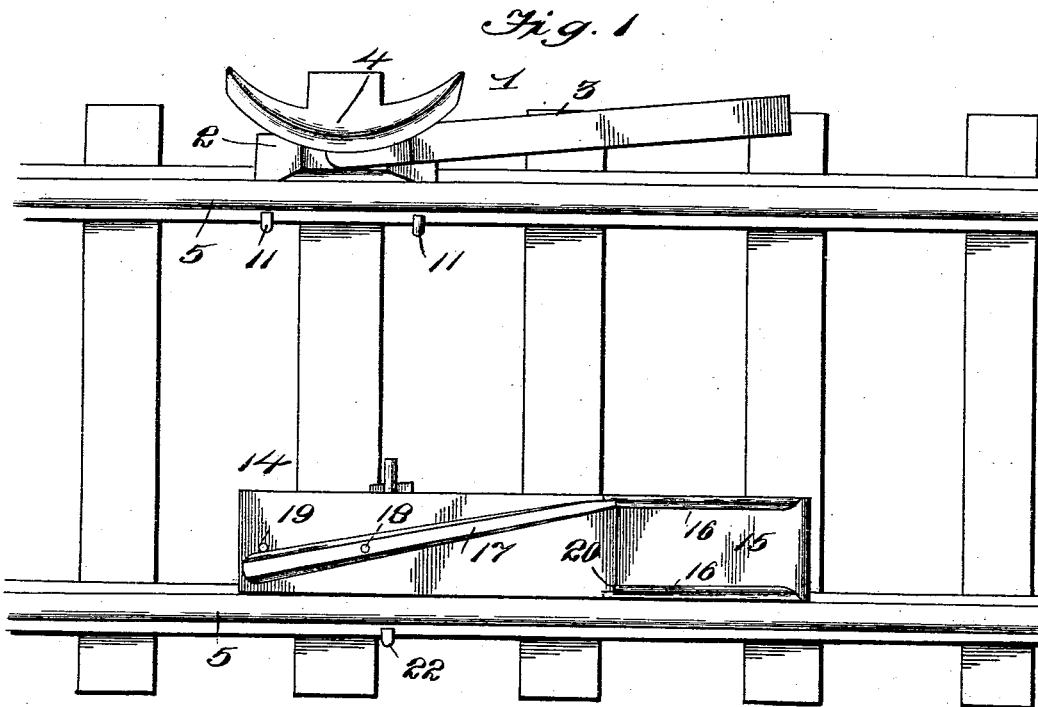


Fig. 6.

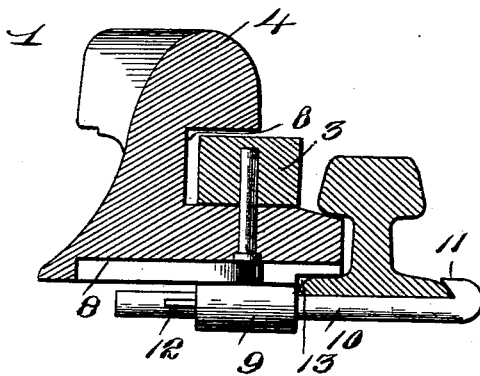
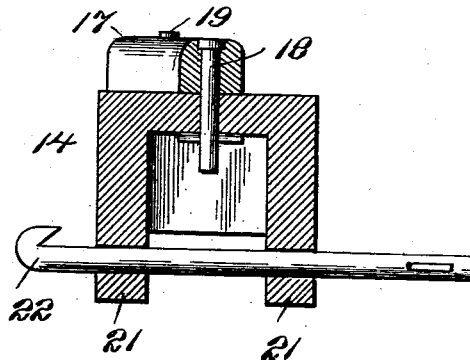


Fig. 5.



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Fig. 3.

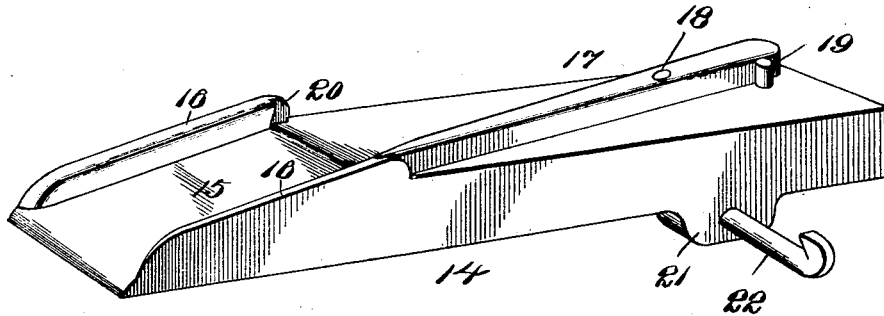


Fig. 4.

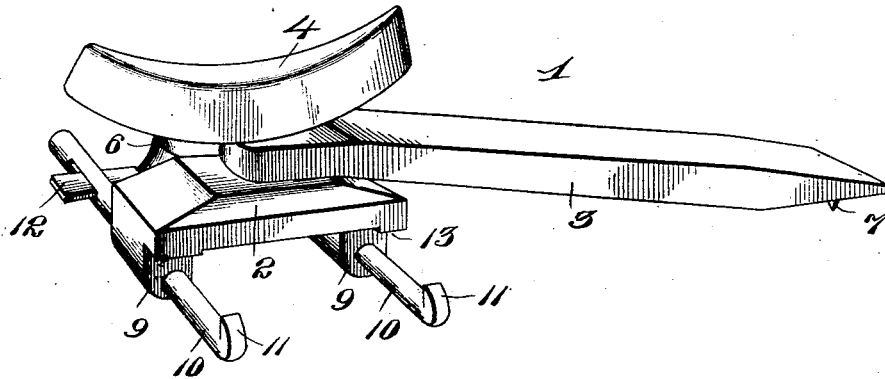
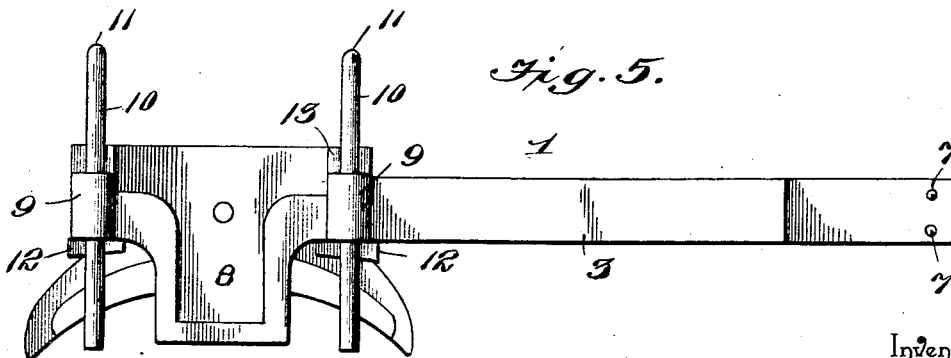


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE R. DODD, OF BELTON, SOUTH CAROLINA, ASSIGNOR OF TWO-THIRDS TO G. W. TAYLOR & CO., OF SAME PLACE, AND THOMAS M. GLENN, OF COLUMBIA, SOUTH CAROLINA.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 563,223, dated June 30, 1896.

Application filed February 4, 1896. Serial No. 578,032. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. DODD, a citizen of the United States, residing at Belton, in the county of Anderson and State of South Carolina, have invented a new and useful Car-Replacer, of which the following is a specification.

The invention relates to improvements in car-replacers.

10 The object of the present invention is to provide a simple, inexpensive, and efficient car-replacer adapted to be rigidly fixed in position adjacent to a pair of rails and capable of rapidly replacing the wheels of a car, whatever the position the same may be in, provided one of each pair of wheels lies between the rails. A further object of the invention is to provide a car-replacer adapted to be arranged adjacent to the rails at the sides thereof without obstructing the track and capable of reversal to permit the wheels of a car to be replaced from either side of the track.

25 Another object of the invention is to provide a car-replacer which will avoid injury to the trucks, and which will enable car-wheels to be replaced by a single pull of a locomotive and at the expenditure of a minimum amount of power.

30 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

35 In the drawings, Figure 1 is a plan view of a portion of a track provided with a car-replacer constructed in accordance with this invention. Fig. 2 is a perspective view of the inner wheel-replacer. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a detail perspective view of the outer wheel-replacer. Fig. 5 is a reverse plan view of the same. Fig. 6 is a transverse sectional view of the outer wheel-replacer.

45 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an outer wheel-replacer comprising a base 2, a reversible bar 3, arranged at an inclination, pivoted at its upper end to

the base and forming a skid to conduct the outer car-wheel to the rail, and a curved guide 4, rigid with the base and adapted, as a wheel rides up the inclined pivotally-mounted bar 3, to force it laterally to carry its flange across the tread of a rail 5. The curved guide diverges from the rail 5 at opposite ends of the base to enable it to receive the car-wheel at either end of it. It is located above the base, being preferably formed integral with it, and connected with the same by a curved extension 6, and its central portion projects inward over the upper end of the adjustable wheel-receiving bar 3.

65 The bar 3 is adapted to receive the tread of the wheel. Its upper end is perforated for the reception of a vertical pin or fastening device for pivoting it to the base, and its lower end is provided with spurs 7, adapted to engage a cross-tie to secure the bar 3 at any desired angle to the rail. The central portion of the upper face of the base is horizontal, and its ends are arranged at a slight inclination to form a support for the pivoted bar, which is adapted to be swung to either end of the base.

80 The base 2 is recessed at its lower face at 8 to provide a space for the reception of spike-heads to enable it to be readily arranged on the upper face of a cross-tie adjacent to a rail, without obstructions from spike-heads. It is provided at its ends with depending perforated lugs 9, through which pass shanks of fastening devices 10, and the fastening devices and the said lugs are designed to be arranged at opposite sides of a cross-tie.

95 The fastening devices extend beneath the rail 5 and are provided with heads 11, forming hooks for engaging the bottom flange of the rail; and the shanks of the fastening devices are slotted for the reception of wedge-shaped keys 12 to enable the rail to be tightly clamped, but nuts, or any other similar devices, may be employed. The perforated lugs 9 extend inward from the outer edges of the ends of the base and terminate short of the inner edge thereof to provide a recess for the reception of the adjacent portion of the bottom flange of the rail 5 to enable the replacer to be rigidly secured to the latter. By 100

locating the lugs 9 at opposite sides of a cross-tie, and by arranging the rail 5 in the recess 13, the outer replacer is rigidly mounted and is securely held against accidental longitudinal or lateral movement.

The inner wheel, or the one which is between the rails, is lifted by means of an inner replacer 14, having its upper face inclined at its front end at 15, and provided at opposite sides thereof with flanges 16. The upper face of the inner replacer, in rear of the inclined portion 15, is slightly inclined and has pivotally mounted on it a switch-bar or frog 17, adapted to have its front or lower end arranged contiguous to the inner or upper end of either of the flanges 16 to form a continuation thereof to guide the flange of a wheel toward the adjacent rail. The switch or frog 17 is pivoted intermediate of its ends by a vertical pin or fastening device 18. It is locked in either of its positions by a removable pin 19, and the rear ends of the flanges 16 are provided with recesses 20 for the reception of the front or lower end of the switch-bar or frog. The pin 19 is mounted in a perforation of the body of the wheel-replacer at the rear end thereof, and engages the rear or upper end of the frog or switch-bar 17 at the inner side thereof. By removing the pin 19 the pivoted switch-bar or frog may be shifted to bring the front end against either of the side flanges 16 to enable the inner replacer to be arranged at either side of a track. The inclined front portion of the inner wheel-replacer is adapted to receive the wheel which rides on its flange. The wheel first comes in contact with the adjacent side flanges 16, and then it is engaged by the pivoted frog or switch-bar, which forces it laterally across the body of the inner replacer to bring its tread upon the adjacent rail.

The body of the replacer may be constructed in any suitable manner. It is preferably hollow, as shown, and it is provided adjacent to its rear end with depending perforated lugs 21, receiving the shank of the fastening device 22, and adapted to be replaced against the cross-tie to hold the replacer against longitudinal movement. The fastening device 22 is constructed similar to those heretofore described, being provided with a hook-shaped head adapted to engage the bottom flange of a rail, and it has a wedge-shaped key, but may be provided with a nut or the like.

It will be seen that the car-replacer is simple and inexpensive in construction and durable, and that it is capable of being rigidly mounted in position on a track without liability of its parts slipping laterally or longitudinally. It will also be apparent that it will enable car-wheels to be quickly replaced without injuring the rails and at the expenditure of a minimum amount of power; that the devices will not obstruct the rails or in-

terfere in any manner with the passage of a train, and that the inner and outer replacers are capable of reversal to operate at either side of a track.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a device of the class described, a wheel-replacer comprising an adjustable and reversible bar having an inclined upper face adapted to receive a wheel and capable of lifting the same, and a curved guide located at the upper end of the bar, having both ends diverging therefrom and capable of forcing a wheel laterally to carry the flange thereof across a rail, either end of the said guide being capable of cooperating with the reversible bar, substantially as and for the purpose described.

2. In a device of the class described, a wheel-replacer comprising a base provided with means for securing it to a rail, a curved guide rigid with the base and located above the same and having both ends arranged to diverge from a rail, and a reversible and adjustable bar pivoted at its upper end to the base adjacent to the center of the curved guide and capable of being swung to either end of the base, substantially as and for the purpose described.

3. In a device of the class described, a wheel-replacer comprising a base recessed at its lower face and provided with depending perforated lugs, fastening devices provided with hook-shaped heads to engage a rail, and having shanks passing through and secured to the said lugs, a superimposed curved guide rigidly connected with the base, and a reversible and adjustable bar having an inclined upper face pivoted at its upper end to the base centrally of the guide and provided at its lower ends with supports to engage a cross-tie, substantially as described.

4. In a device of the class described, a car-wheel replacer comprising a body and having an inclined upper face and provided at opposite sides of the front portion with perforated lugs depending from opposite sides of the body and designed to be arranged contiguous to a cross-tie, a fastening device having a hook-shaped head to engage the bottom flange of a rail and provided with a shank passing through and secured to the perforated lugs, and a pivoted switch-bar or frog mounted on the body, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE R. DODD.

Witnesses:

H. U. GERR,
W. F. WILLINGHAM.