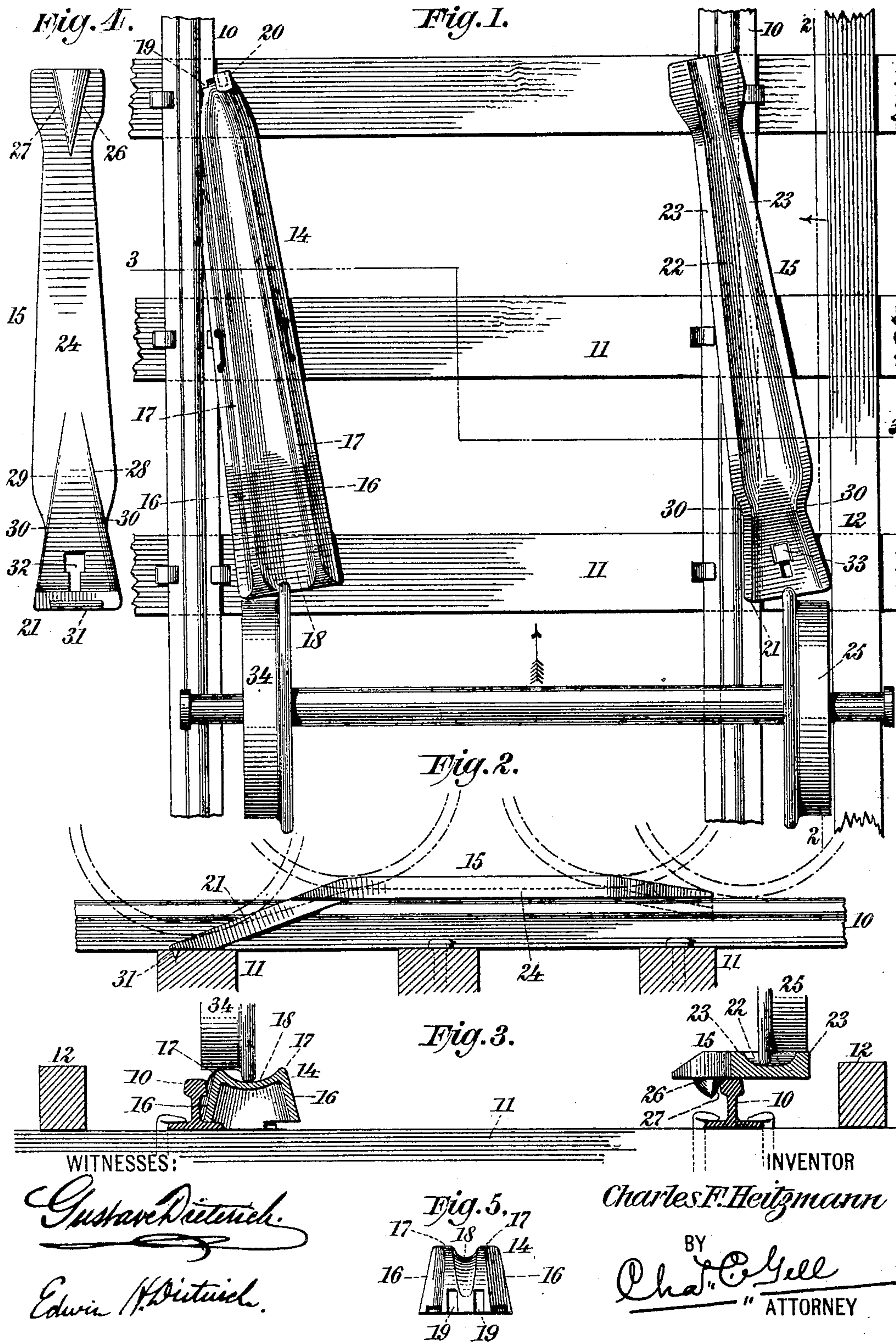


C. F. HEITZMANN.

CAR REPLACER.

APPLICATION FILED JAN. 14, 1906.



UNITED STATES PATENT OFFICE.

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CAR-REPLACER.

No. 795,351.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed January 14, 1905. Serial No. 241,042.

To all whom it may concern:

Be it known that I, CHARLES F. HEITZMANN, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Car-Replacers, of which the following is a specification.

The invention relates to improvements in car-replacers; and it consists in the novel features hereinafter described, and particularly pointed out in the claims.

The object of my invention is to produce a highly-efficient car-replacer for use more especially on elevated railroads employing guard rails or beams close to the track-rails and which guard rails or beams, due to their position, prohibit the use of outside car-replacers of ordinary character.

In the preferred embodiment of my invention the replacer comprises two portable members or replacers coöperating with but differing from each other in construction, one being intended to be placed at the inner side of one track-rail and the other at its entering end at the outer side of the other track-rail, while its body portion extends over the top of said rail, and these members are of such formation that they may be reversed end for end, and thus utilized to restore the wheels to the rails in the direction in which the car may have been moving prior to its derailment.

The special features constituting my invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a section of railway-track with a pair of the replacer members of my invention shown in position for use. Fig. 2 is a longitudinal section of same on the dotted line 2 2 of Fig. 1. Fig. 3 is a transverse section of same on the dotted line 3 3 of Fig. 1. Fig. 4 is a bottom view of the outside member, and Fig. 5 is a front end view of the inside replacer member.

In the drawings, 10 designates the usual track-rails, 11 the ties, and 12 the usual guard rails or beams, which on elevated-railroad structures are placed reasonably close to the track-rails 10 and at the outer side of the latter. The guard-rails 12 are well-known features of elevated-railway structures.

The inside car-replacer member is desig-

nated by the numeral 14 and the outside replacer member by the numeral 15, and these members are illustrated in Fig. 1 in position for restoring the derailed wheels to the track-rails.

The member or replacer 14 is an elongated body having corresponding sides 16, which diverge downwardly from corresponding continuous longitudinal ribs 17, between which is the continuous longitudinal groove 18, said ribs gradually approaching each other and said groove likewise narrowing from the receiving toward the forward end of the replacer. The member 14, commencing at its receiving end, inclines upwardly for a suitable distance and then for a further distance preferably extends forwardly on substantially horizontal lines and then curves rather abruptly downwardly to the lower edges of the replacer, the groove 18 and ribs 17 continuing downwardly at the forward end of the replacer, as shown in Fig. 5. The receiving end of the member 14 inclines upwardly at a degree harmonizing with the upward inclination of the receiving end of the coöperating replacer member 15. The sides of the replacer member 14, especially at the forward portion of the latter, converge toward each other, so that when the replacer is in operative position the forward portion of its side may lie close to the track-rail while the main body of the replacer is at the proper angle to such rail to take the wheel. In order to aid in preventing the replacer member 14 from being pushed forwardly by the impact of the car-wheel, I notch the forward end of said member at each side of its center line, as denoted at 19 19, these notches being adapted to pass upon or receive the body of an ordinary spike 20, which will serve to take any forward thrust of the replacer member. I provide two of the notches 19, so that the notch farthest from the adjacent rail may be utilized to receive the spike 20, as shown in Fig. 1, one of said notches being utilized when the replacer member is pointed in the direction shown and the other of said notches being employed when said member is pointed in the opposite direction.

The member or replacer 15 has been especially designed and constructed for adaptation to places where the space between the guard-rail 12 and adjacent track-rail is insuf-

ficient to permit the use of the ordinary outside car-replacer. The member or replacer 15 is an elongated body having an upwardly-inclined receiving end portion 21, whence the main body of the replacer is adapted to lie upon and along the rail and finally terminate at the edge of its outer end upon the rail, and the said replacer 15 is formed with the longitudinal gradually-narrowing groove 22 and converging ribs 23, the groove 22, when the replacer is in position, extending along and finally crossing the track-rail, while the forward end of the outer rib terminates upon said rail. The member 15 thus comprises the upwardly-inclined receiving end portion 21 and the main body portion 24, which extends forwardly from the portion 21 and is adapted to lie upon and along and cross the rail, as shown in Figs. 1 and 2, the forward ends of the ribs 23 being beveled downwardly, so as to ease the car-wheel 25 onto the track-rail. Upon the lower side of the receiving and forward ends of the member 15 I provide shoulders or stops 26 27 and 28 29, respectively, these shoulders or stops being oppositely disposed and adapted to engage the opposite sides of the track-rail when the replacer member is in position thereon in the location of the parts shown in Fig. 1, the shoulder 27 being against the inner side of the rail and the shoulder 28 being against the outer side of the rail. If the replacer member 15 were pointed in an opposite direction, the shoulder 26 would be arranged against the inner side of the rail and the shoulder 29 against the outer side of the rail. The inclined receiving end portion 21 of the member 15 extends downwardly to the tie 11 and, due to the construction presented, is enabled to lie close to the rail 10 and between this rail and the guard-rail 12 in position to take the wheel 25. At the point where the portions 21 24 of the member 15 meet the longitudinal ribs 23 curve inwardly, as at 30, so that the portion 21 may lie close to the side of the track-rail and the body 24 at the upper end of said portion 21 be enabled to lap over upon the track-rail and extend along a substantially straight line and as nearly parallel with the track-rail as the requirements of the replacer will permit. I provide the edge of the receiving portion 21 of the member 15 with the blade 31, adapted to be pressed into the tie 11 by the weight of the car-wheel, and the said portion 21 is also provided with a slot or aperture 32, which is large enough at its forward end to permit its passage over the head of a spike 33, while the other portion of said slot is only of sufficient width to take the body of the spike below its head. In employing the member 15 a spike may be driven into the tie 11 and the slot 32 passed downwardly over the spike, so that upon a limited forward thrust of the member the narrower portion of said slot may pass upon the body of the

spike and the head of the latter then be relied upon to keep the member 15 in position, or, if preferred, the member 15 may be located and the spike 33 driven downwardly through the slot 32.

In Fig. 1 I illustrate the method of employing the replacers in restoring a pair of derailed wheels onto the track-rails, and by reference to Fig. 1 it will be observed that the tread of the right-hand wheel 25 will pass upon the right-hand rib 23 of the replacer 15, while the flange of said wheel will enter and move along the longitudinal groove 22 of said replacer, and that the tread of the left-hand wheel 34 will pass upon the left-hand rib 17 of the replacer 14, while the flange of said wheel 34 will move along the groove 18 of said replacer. With the replacers in position, as shown in Fig. 1, and the car being pushed forwardly upon the replacers the latter will guide the wheels 25 34 to the track-rails, the wheel 25 following the right-hand rib 23 until the tread of said wheel finally lands upon the right-hand track-rail and the wheel 34 following along the left-hand rib 17 until its tread finally reaches its track-rail. The presence of the right-hand rib 17 on the replacer member 14 serves to keep the wheel 34 constantly crowded toward the left and assures the delivery of the said wheel onto the rail, and this influence of the right-hand rib 17 also aids in compelling the wheel 25 to gradually move laterally toward its rail. The right-hand rib of the member 15 also serves to compel the movement of the wheel 25 toward its rail, and the left-hand rib 23 of said member aids in preventing the wheel 25 from landing on the ties at the inner side of its rail, the construction compelling the wheel 25 to finally land upon the rail and the groove 22 enabling the flange of the wheel 25 to cross the rail.

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

1. A car-replacer comprising an inside member having the continuous longitudinal converging ribs to receive the tread of a car-wheel and forming between them the continuous groove to receive the flange of the wheel, and an outside member having along its top a continuous longitudinal groove to receive the flange of a car-wheel and the continuous converging ribs to receive the tread of the wheel, said outside member being upwardly inclined at its receiving end, whence the body of said member is adapted to lie upon and along the rail with its groove extending across the rail and its outside rib terminating upon the rail; substantially as set forth.

2. A car-replacer comprising a member which has along its top a longitudinal groove and converging ribs and is upwardly inclined at its receiving end, whence the body of said member is adapted to lie upon and along the

rail with its groove extending across the rail and its outside rib terminating upon the rail; substantially as set forth.

3. A car-replacer comprising an outside member which has along its top a continuous groove and continuous converging side ribs and is inclined upwardly at its receiving end said ribs being adapted to receive the tread of a car-wheel and said groove the flange of the wheel, and said member having on the lower side of its end portions the oppositely-disposed shoulders to engage the opposite edges of the rail, said members being adapted to lie upon and along the rail with said groove crossing the rail and the outside rib of said member terminating upon the rail; substantially as set forth.

4. A car-replacer comprising a member which has along its top a longitudinal groove

and converging side ribs and is upwardly inclined at its receiving end, which end is provided with the spike-opening which is larger at one end than at the other, and said member having on the lower side of its end portions the oppositely-disposed shoulders to engage the opposite edges of the rail, said member being adapted to lie upon and along the rail with its inclined receiving end extending downwardly close to the side of the rail and said groove crossing the rail; substantially as set forth.

Signed at New York city, in the county and State of New York, this 13th day of January, A. D. 1905.

CHARLES F. HEITZMANN.

Witnesses:

ARTHUR MARION,

CHAS. C. GILL.