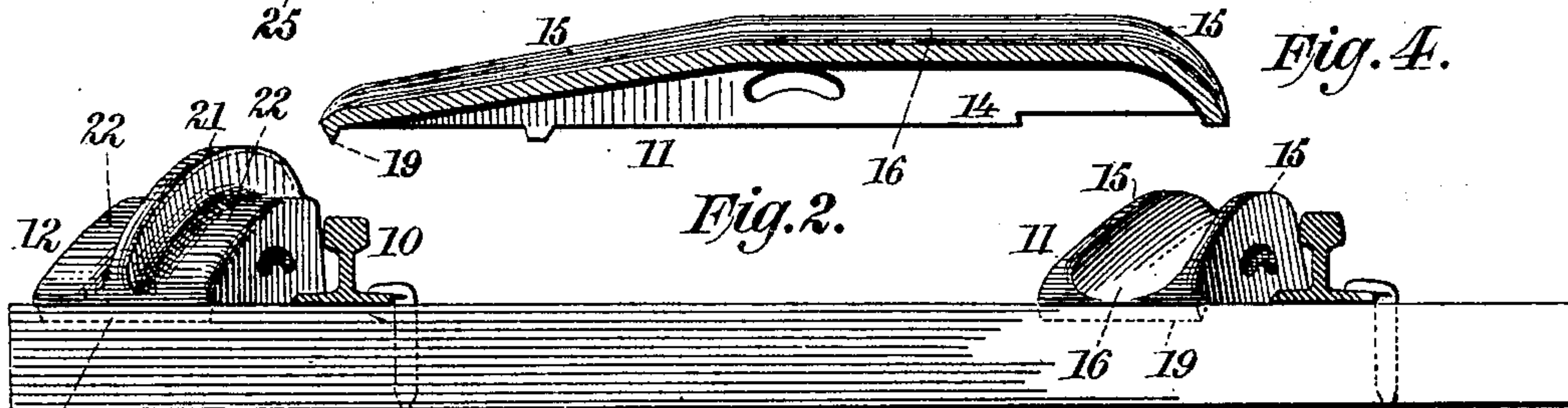
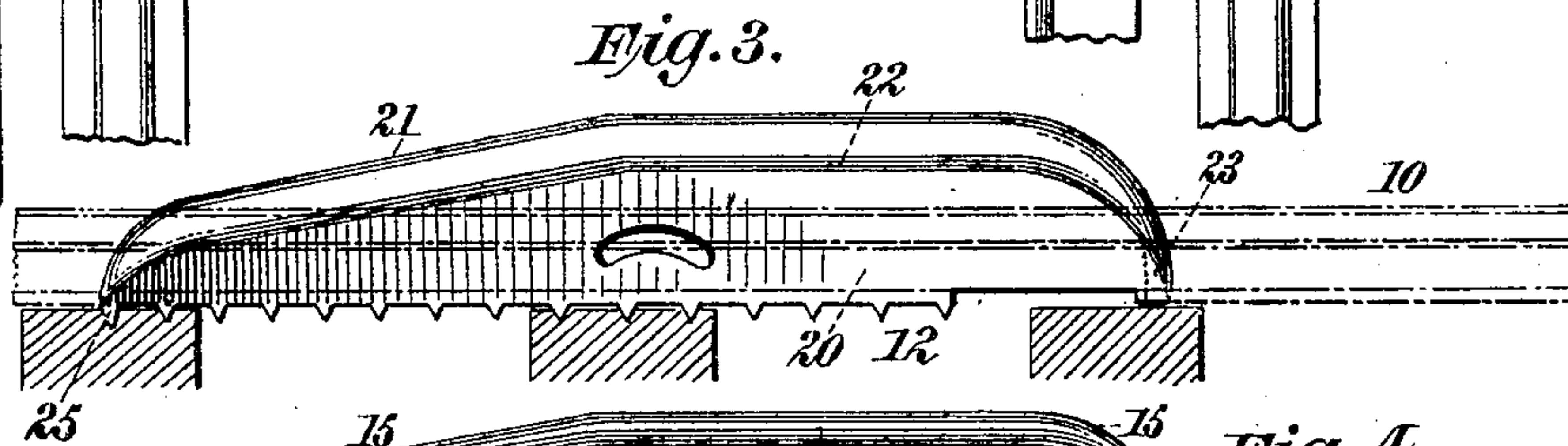
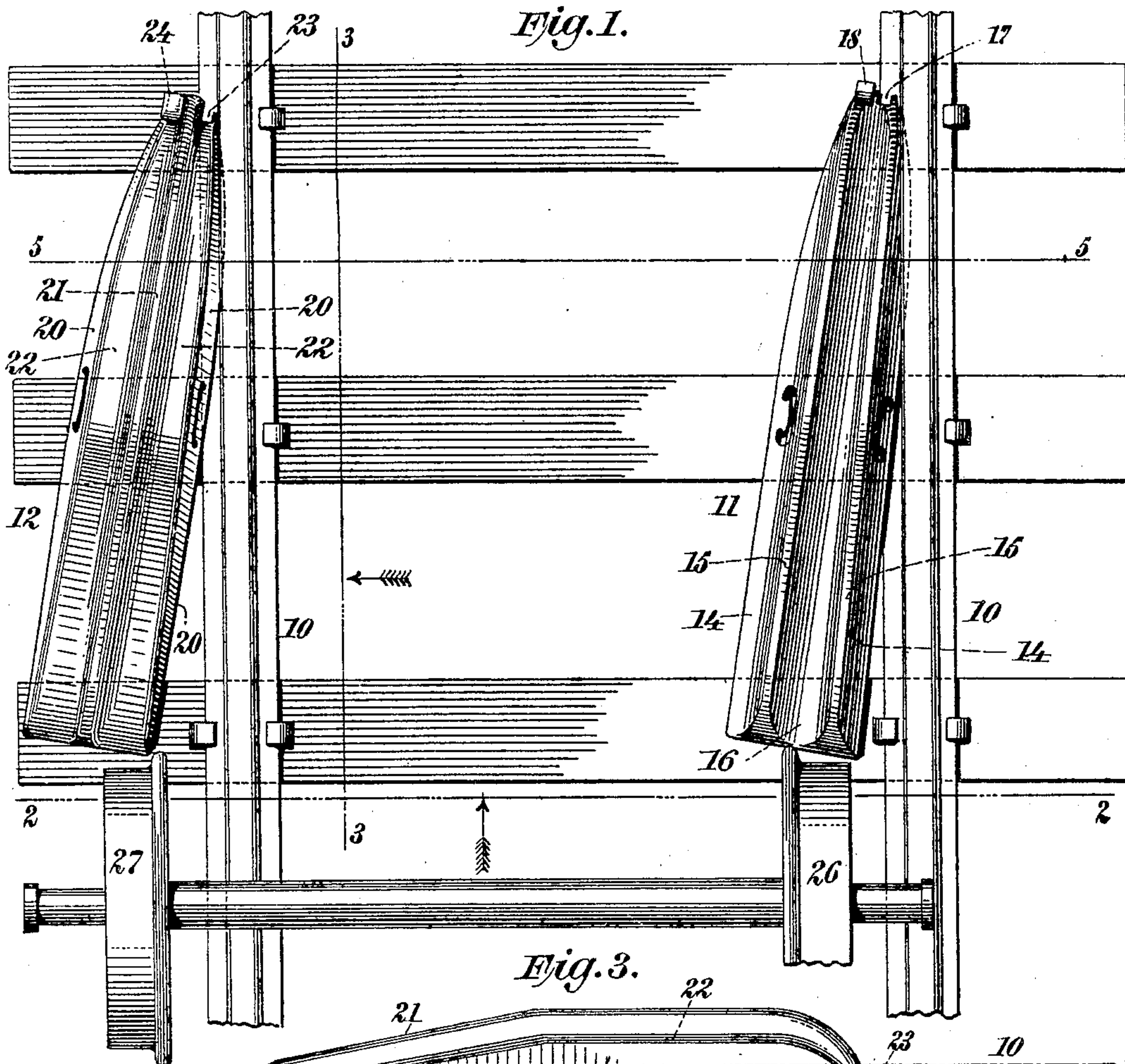


C. F. HEITZMANN.
CAR REPLACER.

APPLICATION FILED JAN. 14, 1905.

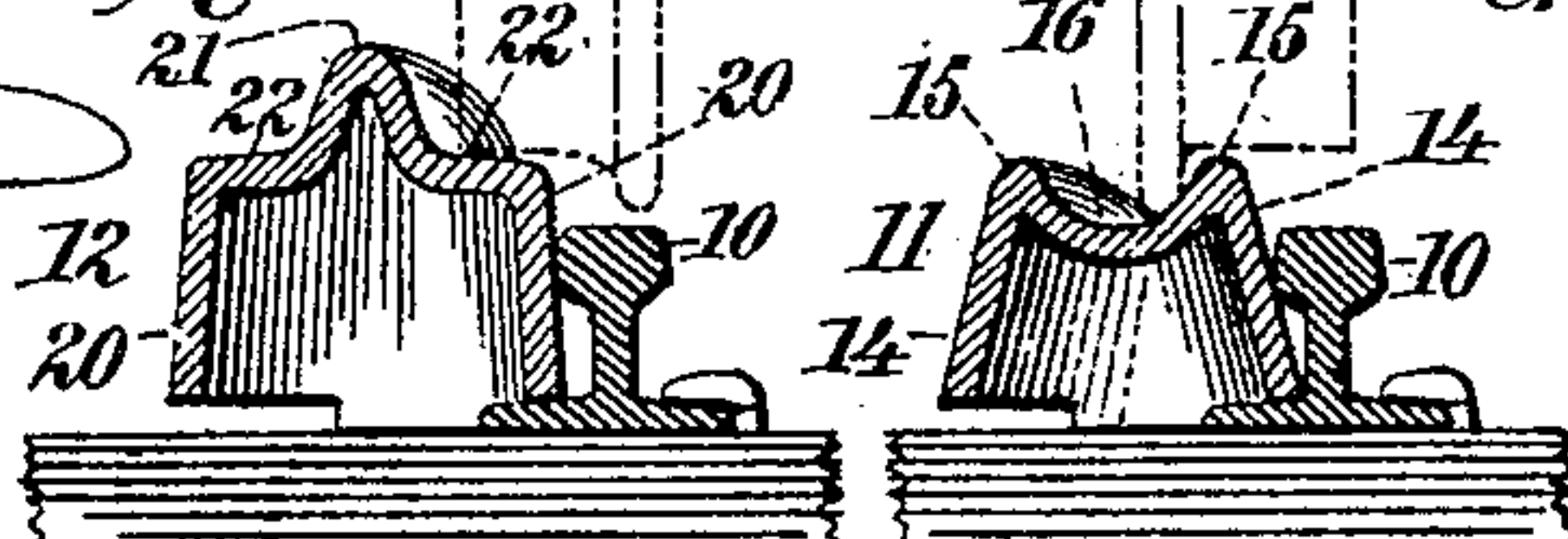


WITNESSES:

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Fig. 5.



INVENTOR

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UNITED STATES PATENT OFFICE.

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MESNE ASSIGNMENTS, TO NATIONAL RAILWAY APPLIANCE COM-
PANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

CAR-REPLACER.

No. 795,352.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed January 14, 1905. Serial No. 241,043.

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 an improved and more efficient car-replacer than those heretofore known to me.

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 the outer side of the other track-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 transverse section of same on the dotted line 2 2 of Fig. 1. Fig. 3 is a longitudinal section of same on the dotted line 3 3 of Fig. 1, the rail being indicated by dotted lines so as to more fully disclose the outside replacer member. Fig. 4 is a central vertical longitudinal section of the inner replacer member, and Fig. 5 is a vertical transverse section, partly broken away, on the dotted line 5 5 of Fig. 1.

In the drawings, 10 designates usual track-rails, 11 the inside replacer member, which is always placed between the track-rails, and 12 the outside replacer member, which is always placed at the outer side of the rails.

The member or replacer 11 is an elongated body having corresponding sides 14 14, which diverge downwardly from corresponding continuous longitudinal ribs 15 15, between which is a continuous longitudinal groove 16, said

ribs gradually approaching each other and said groove likewise narrowing from the entering toward the forward end of the replacer. Commencing at the entering end of the replacer 11 the groove 16 and ribs 15 gradually incline upwardly for a suitable distance and then for a farther distance extend forwardly on substantially horizontal lines and then curve rather abruptly downwardly to the lower edge of the replacer. The sides of the replacer 11, 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. The ribs 15 15 are sufficiently close together to exclude the tread of the wheel from the groove 16.

I recess the lower front portions of the sides 14, so that in locating the replacer with respect to the rail I may place the replacer close up to the tread of the rail, with the side 14 upon the base-flange thereof, the said recessed portions of the sides 14 being represented in Fig. 5. It is desirable that some means be provided for preventing the replacer member from being pushed forwardly by the impact of the car-wheel, and in the present instance I notch the forward end of the replacer member 11 at each side of its center line, as denoted at 17, these notches being adapted to pass upon or receive the body of an ordinary spike 18, which will serve to take any forward thrust of the replacer member. I provide two of the notches 17, so that the notch farthest from the adjacent rail may be utilized to receive the spike 18, 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. I also provide the entering end of the replacer member 11 with a transverse blade or sharpened downwardly-extending flange 19, which under the weight of the car may be pressed downwardly into the tie below it, as indicated by dotted lines in Fig. 2, thereby to locate the replacer member in firm position. The lower edges of the sides of the replacer member 11 may also be provided with suitable teeth to engage the ties or such surfaces as may be below the replacer.

The member or replacer 12 corresponds in

some respects with the member or replacer 11 and in other respects differs therefrom. The member or replacer 12 is an elongated body having corresponding sides 20 20, which diverge downwardly from the top of the replacer, which top comprises a central elevated rib 21 and longitudinal surfaces 22, the rib 21 extending from end to end of the member 12 and being at a greater elevation than the side longitudinal surfaces 22, which surfaces 22 correspond with each other. The longitudinal rib 21 is substantially of uniform height above the surfaces 22, and the surfaces 22 gradually narrow from the entering end to the forward end of the replacer. The replacer member 12, as in the case of the replacer member 11, gradually inclines upwardly for a suitable distance, commencing at its entering end, as shown in Fig. 3, and then for a farther distance extends forwardly on substantially horizontal lines and then curves rather abruptly downwardly to the lower edge of the replacer. The sides of the replacer 12, 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. The surfaces 22 of the replacer member 12 take the tread of the wheel, one of said surfaces 22 being utilized when the member 12 is pointed in the direction shown in Fig. 1 and the other of said surfaces 22 being used when the replacer is pointed in the opposite direction. The rib 21 has downwardly-diverging sides which operate to keep the car-wheel gradually crowded inwardly toward the track-rail. I also recess the lower front portions of the sides 20 of the replacer member 12, so that in locating the replacer with respect to the rail I may place the replacer close up to the rail, with the adjacent side 20 upon the base-flange thereof, the said recessed portions of the sides 20 being represented in Fig. 5. I also prefer to provide the front end of the replacer member 12 with notches 23, corresponding with the notches 17 of the member 11, to pass upon or receive the body of an ordinary spike 24, which will serve to prevent the replacer from being pushed forwardly under the impact of the car-wheel. I provide two of the notches 23 in the replacer member 12 for the same reason that I provide two of the notches 17 in the replacer member 11. I also prefer to provide the entering end of the replacer member 12 with a blade or sharpened transverse downwardly-extending flange 25 to enter a tie, and the lower edges of the replacer 12 may be provided with a series of teeth, as shown in Fig. 3, for engaging the ties or such surfaces as may be below the replacer.

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 26 will pass upon the right-hand rib 15 of the replacer 11, while the flange of said wheel will enter the longitudinal groove 16 of said replacer, and that the tread of the left-hand wheel 27 will pass upon the right-hand longitudinal surface 22 of the replacer 12. 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 26 27 to the track-rails, the wheel 26 following along upon the right-hand rib 15 until the tread of said wheel finally lands upon the right-hand track-rail and the tread of the wheel 27 following along the surface 22 until the flange of said wheel 27 passes to the inner side of the left-hand rail and said wheel finally lands upon said rail. In many instances in the employment of car-replacers the latter must be very accurately set in order to land the wheels upon the rails; but in the present instance this extreme accuracy of locating the replacers is not required, since if the tread of the wheel 26 should in any manner engage the right-hand rib 15 of the replacer 11 and the tread of the wheel 27 should in any way engage the right-hand longitudinal surface 22 of the replacer 12 the wheels will reach the rails so long as the forward ends of the replacers are up against the rails, since the left-hand rib of the replacer 11 will crowd the wheel 26 toward the right and the rib 21 of the replacer 12 will crowd the wheel 27 over toward the right, and before said wheels reach the forward ends of the replacers they will have been pushed into proper relation to assure their delivery upon the track-rails at the proper time and in the proper manner. The replacer members each therefore serve to crowd the wheels laterally toward the rails upon which they are to be placed.

In some locations a road is paved at the outside of the track-rails up nearly to the level of the top of the rails, while between the rails the road-bed is not thus filled up, and in such instances the replacer member 12 will not be employed, the wheel 26 then moving upon the replacer 11 and the wheel 27 being on the higher road-bed, simply traveling upon the same. In such instances the replacer 11 will be relied upon to guide and crowd the wheel 26 over toward the track-rail, and said member 11 is adapted to accomplish this result, the tread of the wheel passing upon the rib 15 adjacent to the rail, while the other rib 15 serves to crowd the wheel toward the rail. If in any instance the road-bed outside the track-rails should be low and the bed between the rails filled up, so as not to receive the replacer 11, I will make use of the replacer 12 alone, since in such instances the rib 21 on the replacer 12 will crowd the wheels over toward

the rails and accomplish the replacing of the wheels upon the rails, the wheel 26 in that instance moving on the road-bed.

For railroad-track work as ordinarily constructed the replacers 11 and 12 will be employed as a pair and in the manner illustrated in Fig. 1.

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

1. A car-replacer comprising an inside member and an outside member, the inside member being an elongated body having the longitudinal converging ribs and narrowing groove which incline upwardly from their receiving ends and then extend forwardly and then turn downwardly, and the forward side portions of said member being also converging so that they may lie close against the rail, and said outside member being an elongated body having the longitudinal rib and narrowing surfaces at the sides thereof, said outside member inclining upwardly from its receiving end and then extending forwardly and then turning downwardly, and having its forward side portions converging to adapt said portions to lie close against the rail; substantially as set forth.

2. A car-replacer comprising a member to be located at the inner side of the rail, said member being a substantially straight body whose forward side portions converge inwardly from the general line of the sides of said member, and which body is formed with the longitudinal converging ribs and narrowing groove, said ribs being adapted to receive the tread of a car-wheel and said groove the flange of the wheel, and said ribs being sufficiently close together to exclude from said groove the tread of the wheel; substantially as set forth.

3. A car-replacer comprising a member to be located at the inner side of the rail, said member being a substantially straight body with converging forward side portions and having the longitudinal converging ribs and

narrowing groove which incline upwardly for a suitable distance from their receiving ends and then extend forwardly on substantially horizontal lines and then turn downwardly at the forward end of the replacer; substantially as set forth.

4. A car-replacer comprising a member to be located at the outer side of the rail, said member being a substantially straight body with converging forward side portions and having the central longitudinal rib and the tread portions at the sides of said rib and becoming narrower toward the forward end of the replacer; substantially as set forth.

5. A car-replacer comprising a member to be located at the outer side of the rail, said member being a substantially straight body with converging forward side portions and at its top having the central longitudinal rib and side tread portions which narrow toward the forward end of the replacer, said rib and side tread portions inclining upwardly for a suitable distance and then extending forwardly on substantially horizontal lines and then turning downwardly at the forward end of the replacer; substantially as set forth.

6. A car-replacer comprising a member having converging forward side portions to be placed close against the rail with the body of said member disposed at an angle to the rail, the top of said member being adapted to receive and guide the wheel to the rail, and the forward end of said member being notched at each side of its center to receive, when the member is in position, a spike in the notch which is farthest from the rail; substantially as set forth.

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

CHARLES F. HEITZMANN.

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.