

No. 682,609.

Patented Sept. 17, 1901.

J. A. FOSTER.  
CAR REPLACER.

(Application filed Oct. 25, 1900.)

(No Model.)

Fig. 1.

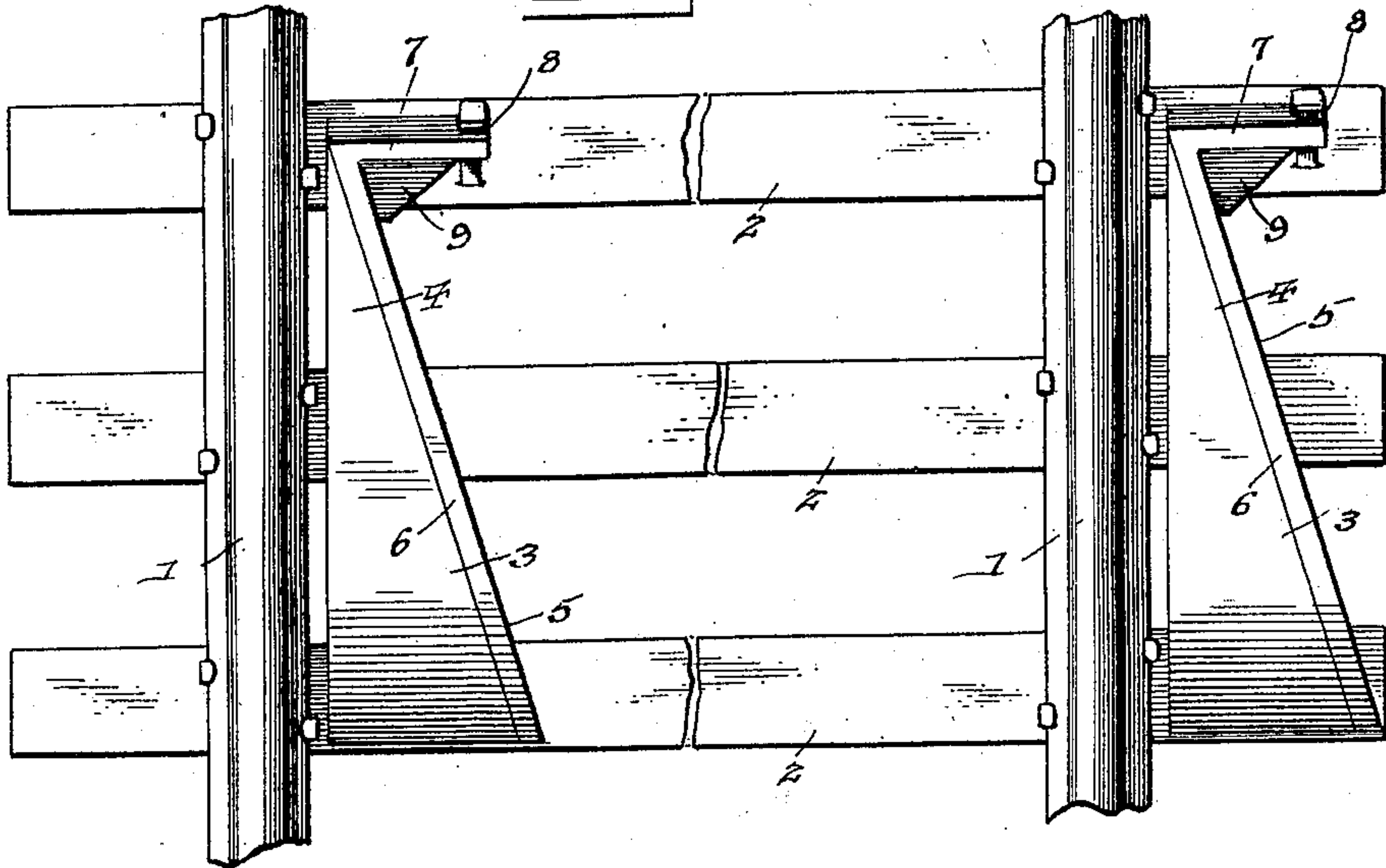


Fig. 2.

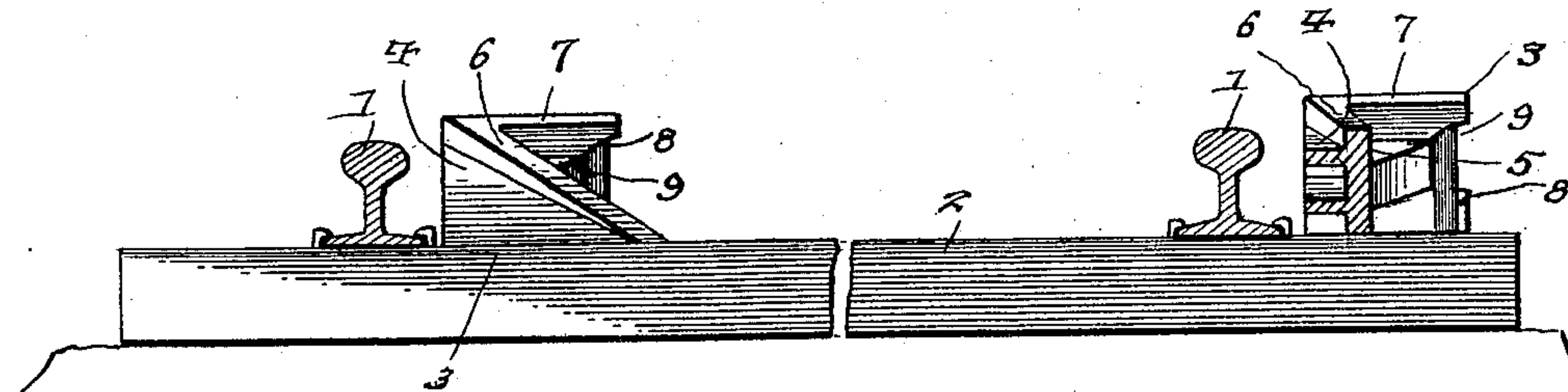


Fig. 4.

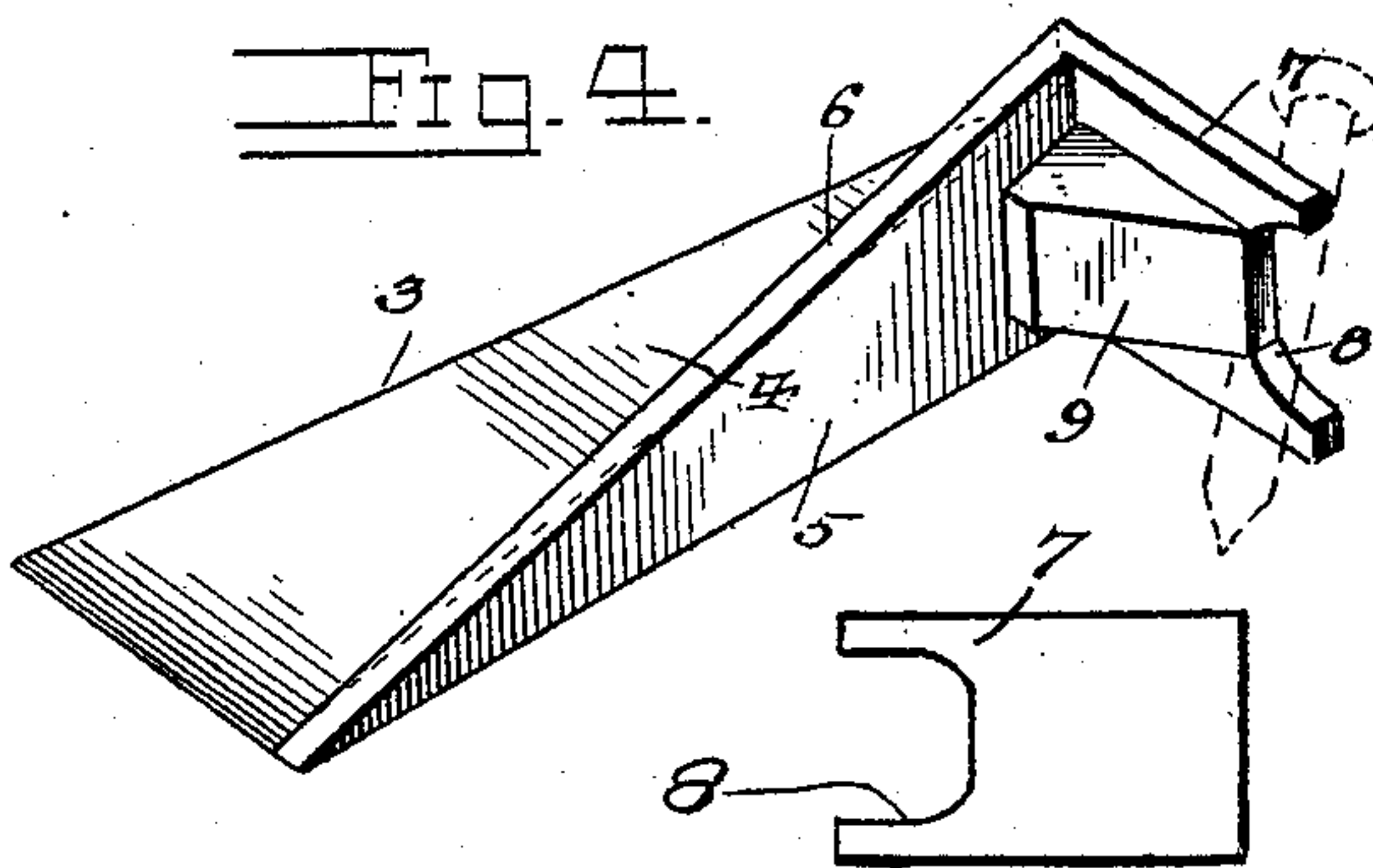


Fig. 3.

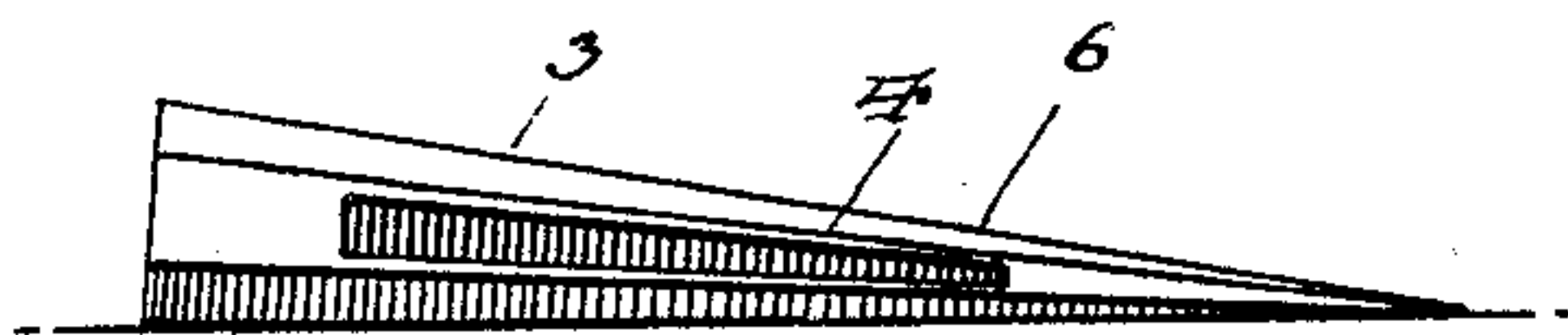


Fig. 5.

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# UNITED STATES PATENT OFFICE.

JULIAN A. FOSTER, OF SALEM, WISCONSIN.

## CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 682,609, dated September 17, 1901.

Application filed October 25, 1900. Serial No. 34,320. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN A. FOSTER, a citizen of the United States, residing at Salem, in the county of Kenosha and State of Wisconsin, have invented a new and useful Car-Replacer, of which the following is a specification.

This invention relates to a car-replacer; and the object of the same is to provide simple and effective reversible means for use upon railways having rails of different characters to assist in replacing the wheels of cars or locomotive-engines upon the rails when removed therefrom by accident or otherwise without requiring nicety of adjustment or accuracy of disposition of the improved devices or interfering in the least with the car-wheels standing on the rails and whereby any number of car-wheels may be redispersed on track-rails after derailment without requiring a re-setting or readjustment of the replacers.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of a portion of a railway-track, showing the improved replacers arranged in operative relation to the rails thereof. Fig. 2 is a transverse vertical section of the portion of the railway-track shown by Fig. 1, illustrating the one replacer in elevation and the other in section. Fig. 3 is an edge elevation of one of the replacers. Fig. 4 is a detail perspective view of one of the replacers. Fig. 5 is an end elevation of the replacer looking toward the extremity having an angular projection and forming a reversible rest.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates track-rails applied to ties 2 in the usual manner, and 3 the improved portable double inclined or reversible replacer constructed of suitable metal by casting or otherwise. The improved replacer is adapted for use either inside or outside the rails, and no difference in construction is necessary for either use, and hence the cost of manufacture of this class of devices is by the improved construction materially reduced, because one pattern or one

mold can be used to produce the same. The replacer comprises a flange 4 at one side which is inclined longitudinally, so that when applied in operative position the upper terminal of the said flange will be on a level with the top of the tread of the rail. This flange is of substantially triangular contour, with its broadest portion at the lower end of the same to rest on one of the ties or other rail-support to insert direction thereonto of the derailed car-wheel without requiring an accurate or particular disposal of the same in relation to the said wheel. The said flange centrally projects inwardly from an outer vertical web 5, which projects above and below the upper and lower working faces of the flange a sufficient distance to form inclined shoulders 6, gradually increasing in width in a vertical direction toward the converged end of the said flange on a level with the rail-tread to provide means for gradually forcing the wheel that is replaced by the improved device over toward the rail on which it is to be operatively positioned. To lighten the structure of the device without detracting in the least from its strength, the intermediate portion of the flange 4 is made hollow, as shown, and the opposite terminals left solid, the flange increasing in thickness toward the higher end thereof, to sustain the greatest strain, which will occur at this point in view of the elevation of the same from the supporting-surface, and thus avoid any liability to breakage of the said portion of the flange. Extending from the broadened end of the web 5 is a right-angular projection 7, having a seat-recess 8 in the free end edge thereof, and between the said projection and the web a bracing and strengthening block 9 is interposed to prevent fracture of the projection by the strain brought to bear thereon.

There are numerous methods of forming the improved device, both integrally and in separate parts, and one of the greatest advantages resident in the construction as set forth is the capability of use of the same either inside or outside a steam-railway or a street track-rail and the readiness of replacing car-wheels moving in either one of two directions by longitudinally reversing the flange 4.

In the use of the device with steam-railway



tracks one or two of the same are disposed, as shown by Figs. 1 and 2, with the free side edge of the flange 4 adjacent to the rail any suitable distance, or so that a replacement of a derailed wheel can be practically effected. When so positioned, a spike is driven through the recess 8 of the projection 7, as shown by Fig. 1, to obstruct sliding movement of the replacer in a longitudinal direction and also to prevent the improved device from being laterally pushed away from the adjacent rail at a point where it is desirable to maintain a constancy of position of the replacer. In street-railways where the track-rails are elevated above the surface the projection 7 may be caught in the paving stones or blocks along the side of the rails, or any preferred mode of temporarily holding the improved device may be adopted. After the replacer or replacers have been disposed in relation to the rail or rails, as set forth, the derailed car is moved forward to cause the peripheral flange of the wheel to ride over and bear upon the upper surface of the flange 4, and during said movement of the wheel over the flange the side thereof comes in contact with the adjacent shoulder 6 and is directed laterally inward by the latter, so that the flange of the wheel on the continued forward movement of the car will move in one instance, or when derailed outside of the track-rail, just over the tread of the adjacent rail and assume a normal position on the rail, and in the other instance, or when the wheel is derailed inside of the rail, the flange of the wheel will bear against the shoulder 6 and the tread portion of the rail will be gradually engaged by the rim of the wheel.

The preferred form of the improved device has been shown and described; but such changes as fall within the scope of the invention will be adopted.

Having thus described the invention, what is claimed as new is—

1. A car-replacer with a like construction at bottom and top and adapted to be turned upside down for reversible use and having an upwardly-inclined flange for direct contact with a car-wheel provided with a lower broadened end and centrally projecting from a vertical web having portions projecting above

and below the said flange to form straight shoulders gradually increasing in width toward the upper reduced end of the said flange, and means for holding the device.

2. A car-replacer with a like construction at bottom and top and adapted to be turned upside down for reversible use and having an upwardly-inclined flange for direct contact with a car-wheel provided with a lower broadened end and an upper reduced end and projected from one side of a vertical web having portions extending above and below the said flange to form straight shoulders gradually increasing in width toward the upper reduced end of the said flange, and a projection at one end of the web having a recess in its outer free end.

3. A car-replacer with a like construction at bottom and top and adapted to be turned upside down for reversible use and having an upwardly-inclined flange for direct contact with a car-wheel provided with a lower broadened end and an upper reduced end and straight shoulders above and below one side of the same, the said shoulders gradually increasing in width in a vertical direction toward the upper reduced end of the flange.

4. A reversible car-replacer having a vertical web forming upper and lower inclined shoulders in relation to an intermediate longitudinally-inclined flange, the latter decreasing in width toward its upper end, the shoulders gradually increasing in width toward the upper reduced extremity of the flange and the lower terminal of the latter having direct contact with the base-rest of the device when in use.

5. As an improved article of manufacture, a reversible car-replacer having a similar top and bottom construction and including a downwardly-inclined intermediately-located flange, the lower terminal of said flange having direct contact with the base-rest of the device when in use.

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

JULIAN A. FOSTER.

Witnesses:

JAMES PENNEFEATHER,  
JOHN M. CONRAD.