

W. S. COPPERS.
CAR REPLACER.
APPLICATION FILED JULY 23, 1909.

949,315.

Patented Feb. 15, 1910.

Fig. 1.

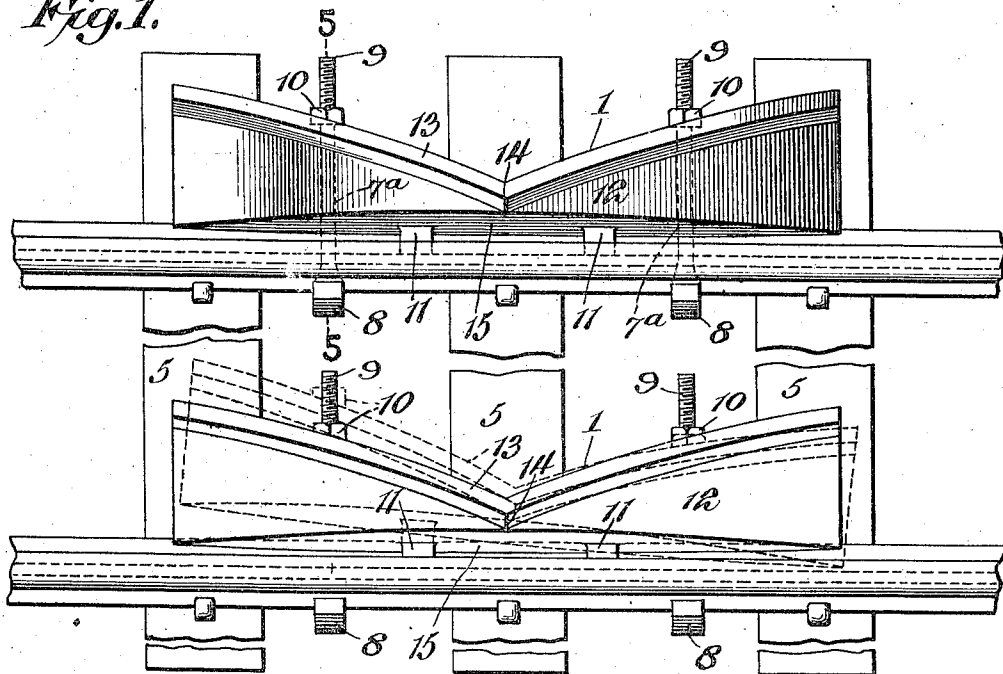


Fig. 2.

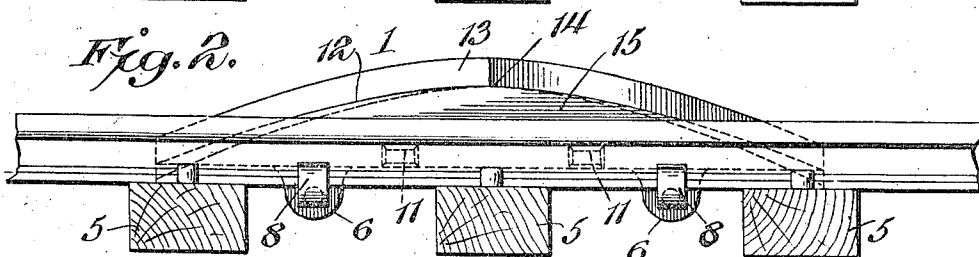


Fig. 3.

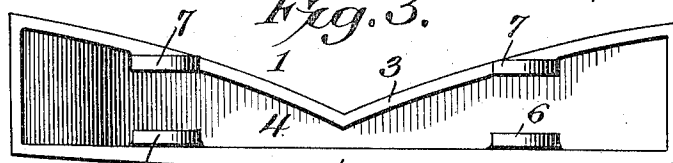


Fig. 4.

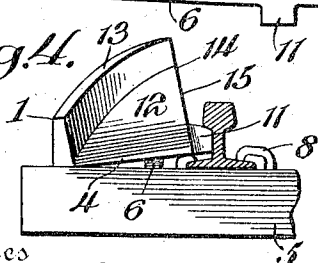
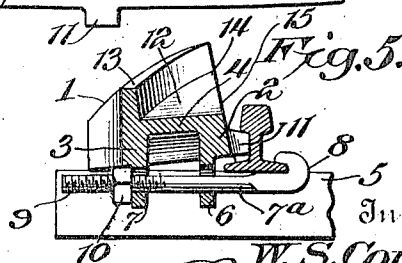


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-REPLACER.

949,315.

Specification of Letters Patent.

Patented Feb. 15, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM SHERMAN COPPERS, a citizen of the United States, residing at Belleville, in the county of Republic and State of Kansas, 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 improve the construction of car replacers, and to provide a simple, inexpensive and efficient car replacer of great strength and durability, adapted to operate either at the
15 inner side or outer side of a rail, and capable of adjustment to arrange it in different positions to correspond to the position of the derailed wheel to be replaced.

20 A further object of the invention is to provide a car replacer of this character, capable of positively carrying the flange of the outside wheel across the top of the rail and of causing the wheel to drop into proper place, and spaced from the rail a sufficient distance
25 to permit the flange of the inside wheel to drop between it and the rail.

30 With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-
35 to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

40 In the drawing:—Figure 1 is a plan view of a pair of car replacers, constructed in accordance with this invention, and shown applied to a portion of a track at the inside and outside of the rails thereof. Fig. 2 is
45 a side elevation of one of the car replacers. Fig. 3 is a reverse plan view of the same. Fig. 4 is an end view. Fig. 5 is a transverse sectional view, taken substantially on the line 5—5 of Fig. 1.

50 Like numerals of reference designate corresponding parts in all the figures of the drawing.

55 1 designates a car replacer, adapted, as illustrated in Fig. 1 of the drawing, to be arranged at either the inner side or outer side of a rail. It consists of an oblong body tapered transversely from the ends to the

center, and preferably constructed hollow or of flanged formation, being composed of inner and outer sides or walls 2 and 3, and a top 4. The lower edges of the car replacer
60 are horizontal and are adapted to be arranged upon the cross ties 5, as shown, and the device is provided at intermediate points with depending inner and outer ears 6 and 7, formed integral with the inner and outer
65 sides of the car replacer, and arranged in pairs and receiving the shanks 7^a of the clamping members 8. The clamping members 8, which are disposed transversely of the car replacer, are located midway between the
70 center and ends thereof and are disposed transversely of the same. They are provided at their inner ends with heads or jaws for engaging the bottom flanges of the rails, and they extend beneath the same, and are pro-
75 vided at the outer portion of their shanks with screw threads 9 for the reception of nuts 10, bearing against the outer ears 7 and adapted to hold the car replacer firmly in position, whereby the same is prevented from
80 accidentally slipping out of place.

The car replacer is provided at the exterior of its inner side or wall with horizontal rail-engaging lugs 11, located at
85 opposite sides of the center of the device and fitting against the web of the rail beneath the head thereof, as clearly shown in Figs. 4 and 5 of the drawing. Either or
90 both lugs may be fitted against the web of the rail, and when desired the car replacer may, as illustrated in dotted lines in the lower portion of Fig. 1 of the drawing, be arranged at an angle to the adjacent rail,
95 when necessary in order to position it properly with relation to the wheel to be replaced. The lugs 11 also space the inner side of the replacer a sufficient distance from the rail to permit the flange of the inner
100 wheel to drop between the replacer and the rail.

The upper wheel receiving face 12 of the car replacer is inclined upwardly from the ends to the center, and it extends above the top of the rail a sufficient distance to permit the flange of a wheel to clear the
105 head of the rail, when the tread of the wheel rests upon the upper face of the car replacer at the intermediate portion thereof. The car replacer and the upper face thereof taper transversely from the outer ends to
110 the center, and the replacer is provided at its outer side with an upwardly extending

longitudinally disposed marginal flange 13, composed of two angularly related portions forming an apex 14, which is arranged at the inner face of the car replacer, whereby
 5 the marginal flange, which is arranged at an angle to the rail, is adapted to force the wheel toward the same, and is capable of dropping the wheel in proper place upon the rail. The outside wheel moving upwardly
 10 and inwardly on the car replacer will first drop its flange at the inner face of the car replacer. The tread of the outside wheel will then rest upon the upper face of the car replacer with the flange above the plane
 15 of the head of the rail. The wheel will continue its inward movement until the tread is forced off the upper face of the car replacer at the center thereof. The inner face 15 of the car replacer is inclined and
 20 forces the wheel inward as the same drops downward upon the track. The flange of the inside wheel rests or rides on the car replacer until the wheel is forced off the same by the marginal flange, which will
 25 cause the flange of the wheel to drop into the space between the car replacer and the head of the rail.

Having thus fully described my invention, what I claim as new and desire to secure
 30 by Letters Patent, is:—

1. A car replacer provided at opposite sides of its center with spaced horizontally projecting lugs arranged to extend beneath the head of a rail and engage the same to

space the car replacer therefrom and also 35 to form fulcrums for enabling the car replacer to be arranged either in substantial parallelism with the rail or at different angles to the same, and means for adjust- 40 ably securing the car replacer to a rail for maintaining one or both of the lugs in engagement with the same.

2. A car replacer consisting of a body tapered transversely from its ends to its center and having an upper wheel-receiving 45 face inclined upwardly from the ends to the center and extending a sufficient distance above the head of a rail to support the flange of a wheel out of contact with the rail, a marginal flange extending longi- 50 tudinally of the car replacer at the outer side thereof and composed of angularly related portions forming an apex extending to the inner face of the car replacer, spaced rail-engaging lugs extending from the inner 55 face of the car replacer at opposite sides of the center thereof, and spaced means also located at opposite sides of the center of the car replacer for adjustably connecting the same to a rail. 60

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

WILLIAM SHERMAN COPPERS.

Witnesses:

J. M. JOHNSON,
 E. J. NEALEIGH.