No. 882,097. PATENTED MAR. 17, 1908.

H. M. CAWOOD.

CAR REPLACER.

APPLICATION FILED DEC. 3, 1907.

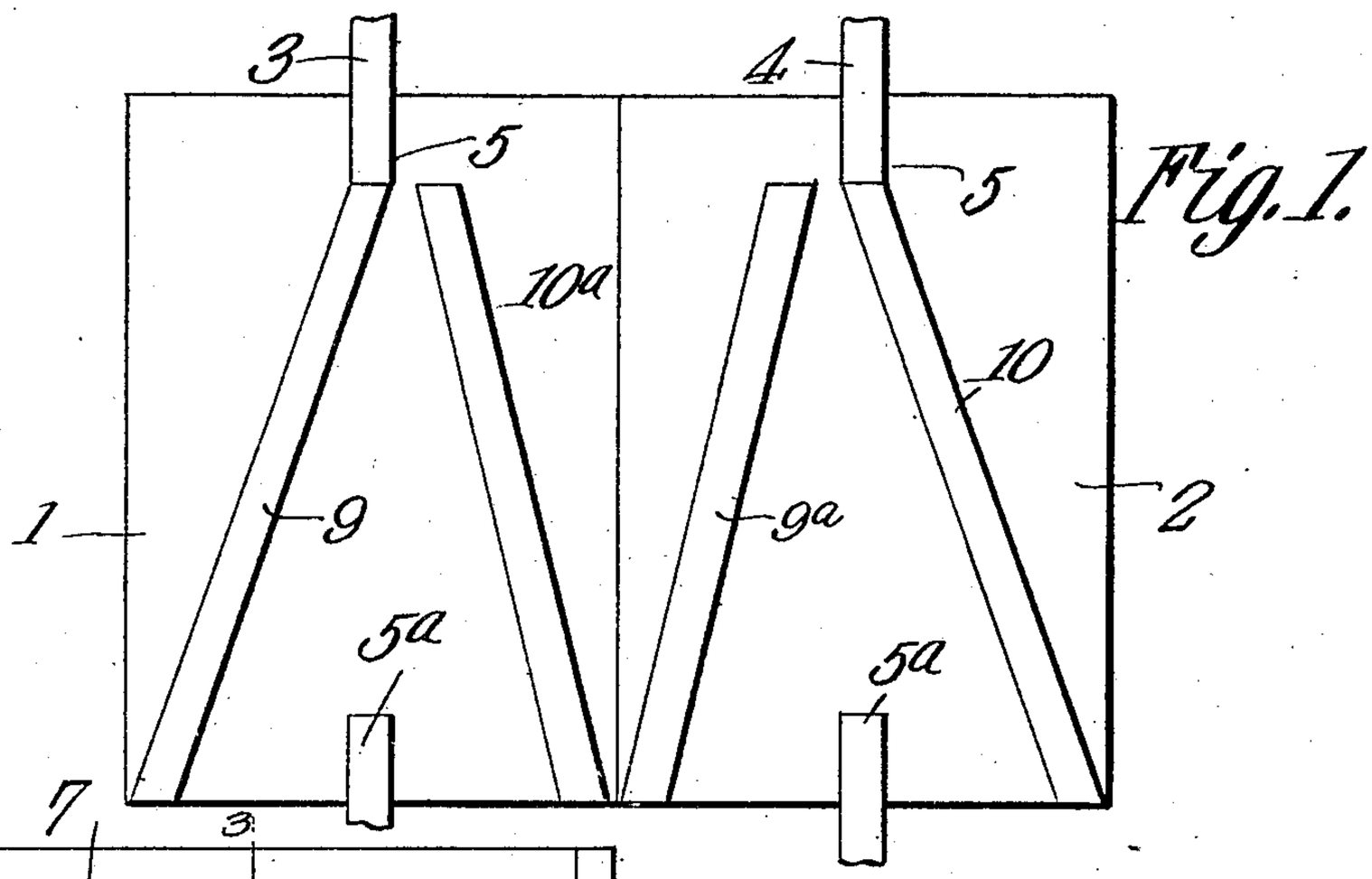

Fig. 1.

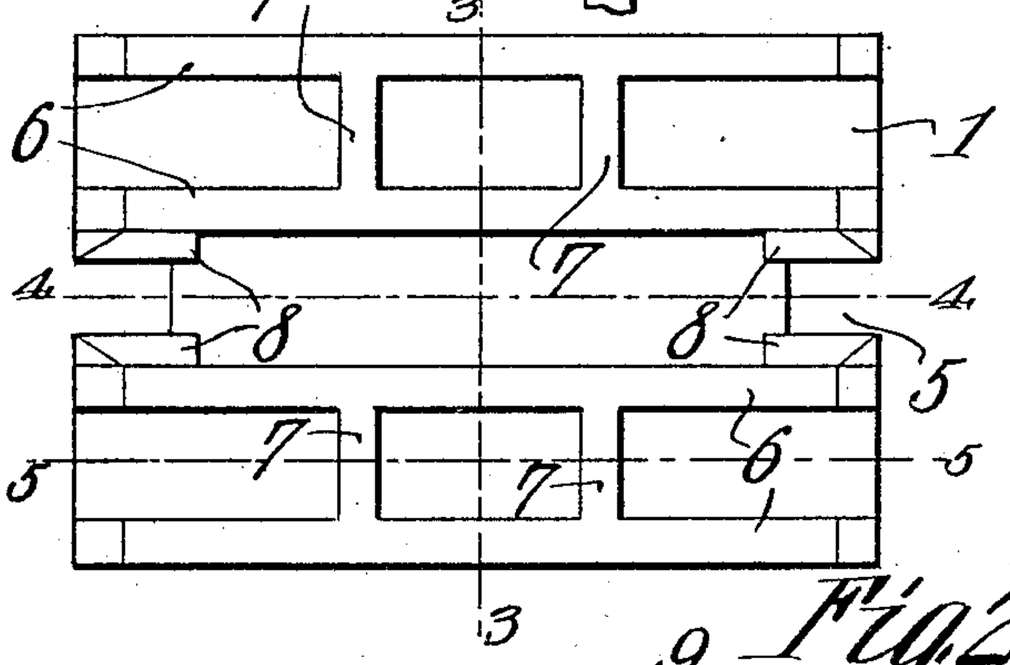

Fig. 2.

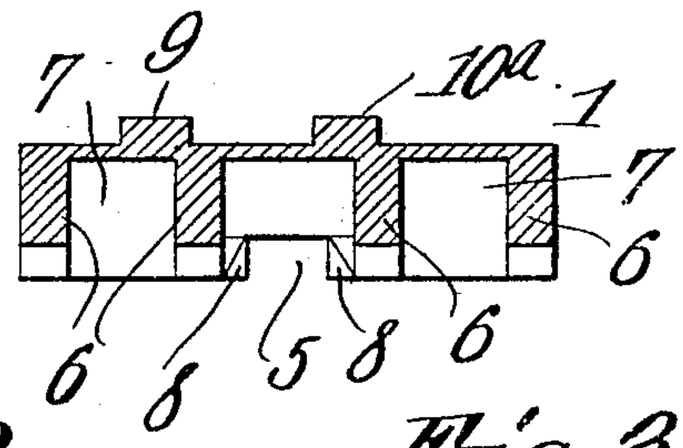

Fig. 3.

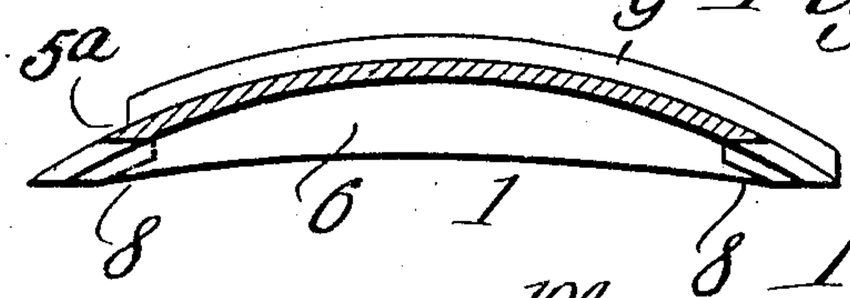

Fig. 4.

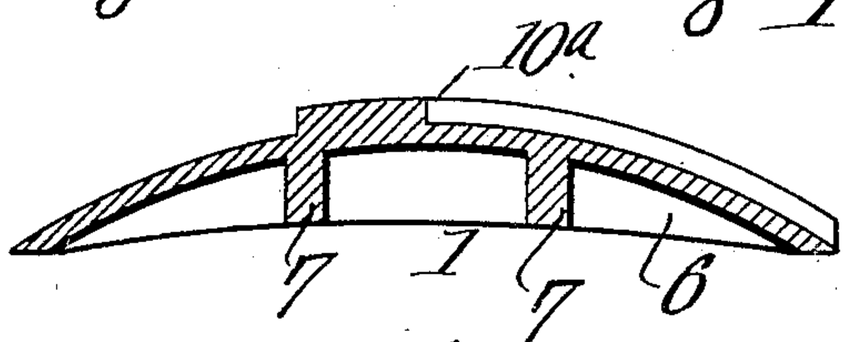

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-REPLACER.

No. 882,097. Specification of Letters Patent. Patented March 17, 1908.

Application filed December 3, 1907. Serial No. 404,904.

To all whom it may concern:

Be it known that I, HORACE M. CAWOOD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Car-Replacer, of which the following is a specification.

This invention relates to a car replacer; and has for its object to provide a simple sure and readily applied device of this character for guiding the derailed wheels of railroad cars onto the track. This result is attained by the novel means hereinafter described and claimed and illustrated in the accompanying drawing, in which

Figure 1 is a plan view of a portion of a railroad track with the car replacer in position thereon; Fig. 2 is a bottom plan view of one of the two plates forming the car replacer; Fig. 3 is a cross sectional view on the line 3—3 of Fig. 2, and Figs. 4 and 5 are longitudinal sectional views on the lines 4—4 and 5—5 respectively of the same figure.

Similar numerals of reference are used for the same parts on all the figures.

The car replacer comprises two plates 1 and 2, the plate 1 of which is arranged for use on the left hand rail 3 and the plate 2 for the right hand rail 4 of a car track. Each plate is curved longitudinally from end to end on an axis perpendicular to the line of the rail over which it is placed, the highest point of the plate being at the center of its length. The ends of each plate are parallel to each other and lie in the same horizontal plane with a central notch 5 at the rear end and a like notch 5^a at the forward end, into which notches the track rail enters when the plate is positioned thereon. Each plate is strengthened on its under concave side by longitudinal ribs 6 and transverse ribs 7 between the longitudinal ribs 6 except at the center where they are omitted to permit the rail passing therethrough. To prevent the plate breaking on either side of the end notches 5 and 5^a, reinforcements 8 are added between the sides of said notches and the adjacent ribs. The plates when in use rest on the cross ties, and in order to secure a firm and steady base for their ends, the longitudinal ribs 6 have their under edges curved upward from each end towards the center so that any irregularity in height of the cross ties between the ends of the plates will not cause the plates to rock nor interfere with their steadiness.

On the upper or convex sides of each plate are two rails, numbered 9 and 10^a on plate 1 and 9^a and 10 on plate 2. The rail 9 on plate 1 extends from the notch 5 at the rear end of the plate and above the line of the track rail forwardly and to the left of said line. The rail 10 on plate 2 is similar to the rail 1 but inclines to the right. The rail 9^a on plate 2 is spaced from the rail 10 at the rear end a distance equal to the thickness of a car wheel flange, from whence it extends to the forward end of the plate, diverging from the rail 10. A similar arrangement is made of rail 10^a on plate 1. From an inspection of Fig. 1 it will be observed that the rails 9 and 10 diverge from the rear end while the rails 9^a and 10^a converge from the same ends of the plates towards their front ends.

When the plates 1 and 2 are placed in position over the track rails, the rails 9 and 9^a incline towards the track rails in the same general direction from the left but at different angles, the same can also be said of the rails 10 and 10^a except for their inclination which is from the right. If a car, derailed on the left side of the track is to be replaced, the car replacer will be positioned near a pair of wheels and, as the car moves, a wheel of the pair will roll on each plate with the flanges of the wheels on the right of the rails 9 and 9^a. At the forward end of the replacer the distance between the inner side of the rail 9 and the outer side of the rail 9^a is greater than the gage of the track, but as the rails 9 and 9^a converge slightly toward their rear ends the distance between these same points is less than the track gage. As the tendency of the derailed wheels is to move in lines parallel with the track, at some time during the operation the flange of the right wheel as it rolls over the plate 2 will strike the rail 9^a and draw both wheels in the direction of the track. As the wheels travel over the replacer with the flange of the right wheel against the track 9^a, the left wheel flange will be rolling on the plate 2 and not on the rail 9 because of the distance between the rails. Finally a point will be reached where the tread portion of the left wheel will mount the rail 9 because of the convergence of said rail toward the rail 9^a. The continued forward movement of the wheels will cause the right wheel to leave the rail 9^a from the fact that the flange of the left wheel is bearing against the rail 9. On approaching the rear end of the replacer, the tread of the right

wheel will roll onto the rear end of the rail 10 and, when the ends of the rails 9 and 10 are reached, the wheels will drop onto the track rails 3 and 4.

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

1. A car replacer comprising a pair of convexly curved coöperating plates each plate adapted to lie across one rail of a railroad track and be supported on the ground at its forward and rear edges only, said edges having each a notch for the passage therethrough of said track rail, parallel longitudinal strengthening ribs on the under surface of the curved plate, and two rails or ribs on the upper side of said plate converging from the forward edge of said plate towards the notch in the rear edge of the same, one of said ribs or rails terminating in line with said notch.

2. A car replacer comprising a pair of convexly curved coöperating plates each plate adapted to lie across one rail of a railroad track and be supported on the ground at its forward and rear edges only, said edges having each a central notch to engage the track rail, a plurality of longitudinal strengthening ribs on the under side of said curved plate slightly concaved from end to end, reinforcing blocks between each side of said notches and the adjacent ribs, and two straight rails or ribs on the upper surface of said plate converging at different angles from the forward corners of said plate towards the rear edge thereof, one of said ribs terminating in line with the forward notch and the other rib a short distance therefrom.

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

HORACE M. CAWOOD.

Witnesses:

F. A. HOLLENBECK,

JAMES H. CARDIN.