A. C. RICHEY.

RAILWAY RAIL JOINT.

APPLICATION FILED AUG. 25, 1908.

961,461. Patented June 14, 1910.

Fig 1.

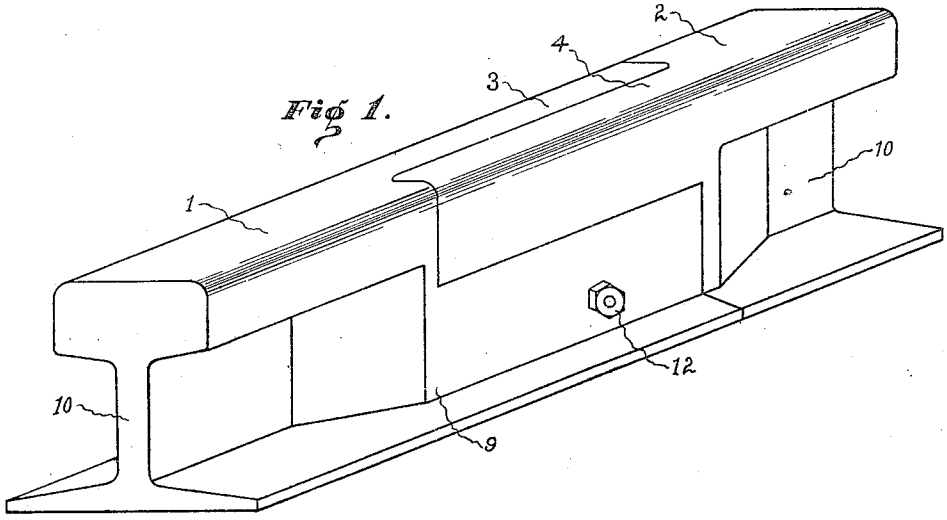


Fig 2

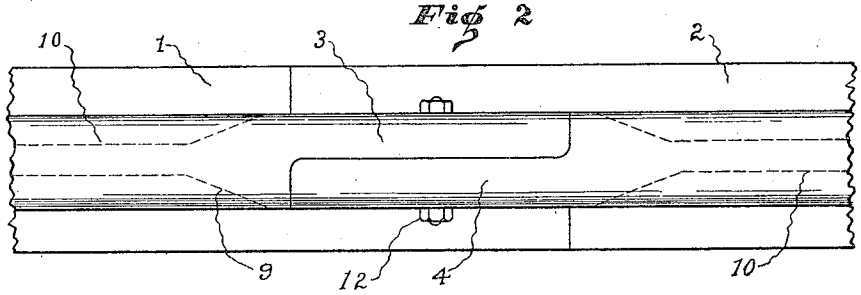


Fig 3

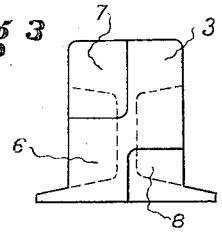


Fig 4

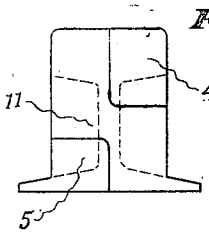


Fig 5

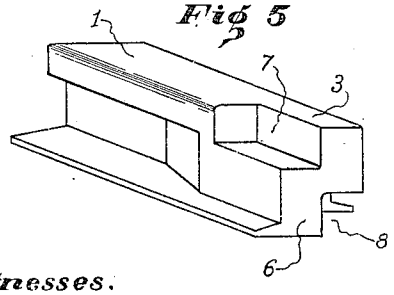
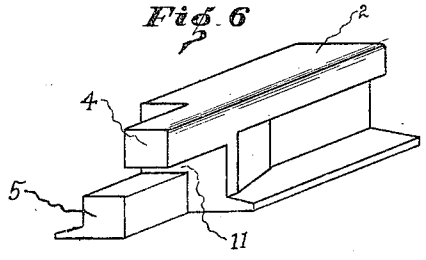


Fig 6



Witnesses.

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ALBERT CLEVELAND RICHEY, OF PUEBLO, COLORADO, ASSIGNOR OF ONE-THIRD TO J. W. KENNEDY AND ONE-THIRD TO JOHN LA MOTTE, OF PUEBLO, COLORADO.

RAILWAY-RAIL JOINT.

961,461. Specification of Letters Patent. **Patented June 14, 1910.**

Application filed August 25, 1908. Serial No. 450,209.

To all whom it may concern:

Be it known that I, ALBERT CLEVELAND RICHEY, a citizen of the United States, residing in the city of Pueblo, county of Pueblo, and State of Colorado, have invented a new and useful Improvement in Railway-Rail Joints, of which the following is a specification.

My improvement relates to railway rail joints in which the web at the end of the rail is made thicker and the joint is so made as to obviate the direct weight upon the space between the rails, and the objects of my improvement are, first, to provide a means of joining the ends of the rails without the use of fish plates or clamps; second, to provide means for joining the ends of railway rails so as to give the practical effect of a continuous rail at the joint; and third, to provide means for joining the rails of a railway so that the effect of a continuous rail may be had without the aid of fish plates or other added parts except such as are provided in the construction of my rail joint contrivance. I attain these objects in the manner shown in the accompanying drawings in which,—

Figure 1 is a perspective view of my device with the rail joint closed; Fig. 2 is a plan view; Fig. 3 is an end view of end 1 in Fig. 1; Fig. 4 is an end view of end 2 in Fig. 1; Fig. 5 is a perspective view of end 1 in Fig. 1; and Fig. 6 is a perspective view of end 2 in Fig. 1.

Similar numerals refer to similar parts throughout the several views.

The ordinary railway rail on which my improvement is to be used is thickened at the ends so as to make the web 10 as thick as the ball of the rail as shown at 9 to end of rail. One end of the rail for the required distance from the end is made into the form shown in Figs. 3 and 5, in which gain 7, one half the width of the ball of the rail and one third the height of the rail, is formed the required length, and gain 8, diagonally opposite gain 7, one half the width of the flange and one third the height of the rail, is formed the required length, leaving a solid portion of metal connecting the remaining parts of the rail. The corresponding part of the rail joint is shown in Figs. 4 and 6, in which the end of the rail is formed so as to make arm 4 that will exactly fit into gain 7 and the top of 4 will be exactly even with the top of the remaining portion of the ball of the rail on the side of gain 7, and also so as to form arm 5 that will exactly fit into gain 8 and the bottom of the arm 5 will be exactly even with the remaining portion of the flange on the side of gain 8, and also so as to form slot 11 that will exactly inclose and register with the portion of material connecting parts 3 and 6 left by the forming of said gains 7 and 8. When the parts are united they fit together as shown in Figs. 1 and 2. By making the web of the rail thicker at the end I secure in my rail joint as much supporting material as is originally provided in the web of the rail, and when the joint is united in this manner of construction it tends to make the point of union of the rails as strong as any other part of the rail and avoids the space usually occurring between rails subject to the pounding of the passing wheels, because at all times the wheels are resting upon some solid portion of the rails. I also provide bolt 12 in case it is desired to use the same as a longitudinal bond. In construction one end of a rail is formed with gains 7 and 8, leaving portions 3 and 6 connected with solid metal as shown in Figs. 3 and 5; and the other end of the rail is formed with arms 4 and 5 and slot 11 as shown in Figs. 4 and 6.

I claim,—

1. In a railway rail joint of the character described, the web of the rails thickened at each end, on one end of a rail a gain in the top and one side of rail, at same end of rail diagonally opposite last named gain and in bottom and side of rail another gain, the remaining portion of top and bottom of rail surrounding said gains connected by remaining portion of solid metal, in end of another rail arms that engage and register in said gains and with the top and bottom of portion of rail adjacent to said gains, a slot between said arms engaging the solid portion between said gains on end of other rail, all substantially as set forth.

2. In a rail joint the combination with a rail having superposed laterally offset tongues, the upper tongue being flush with the upper surface of the rail and said tongues being spaced apart throughout their lengths; of a second rail having laterally offset superposed tongues insertible into position opposite the corresponding tongues of the other rail, there being an integral web

connecting the tongues on said second rail and insertible into the space between the tongues of the first mentioned rail.

3. A rail having the web thereof thickened at each end, and superposed laterally offset tongues extending from each end of the rail and having their outer faces flush with the corresponding faces of the adjoining portion of the rail, the corresponding tongues at the two ends of the rail being out of alinement, the tongues at one end of said rail being spaced apart longitudinally, there being a connecting web between the tongues at the other end of the rail, said tongues and their connecting web being of the same area as the spaces at the sides of and between the tongues at the other end of the rail.

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Witnesses:
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