H. RIDDLE.

RAIL JOINT.

APPLICATION FILED APR. 8, 1913.

1,080,481. Patented Dec. 2, 1913.

Fig. 1.

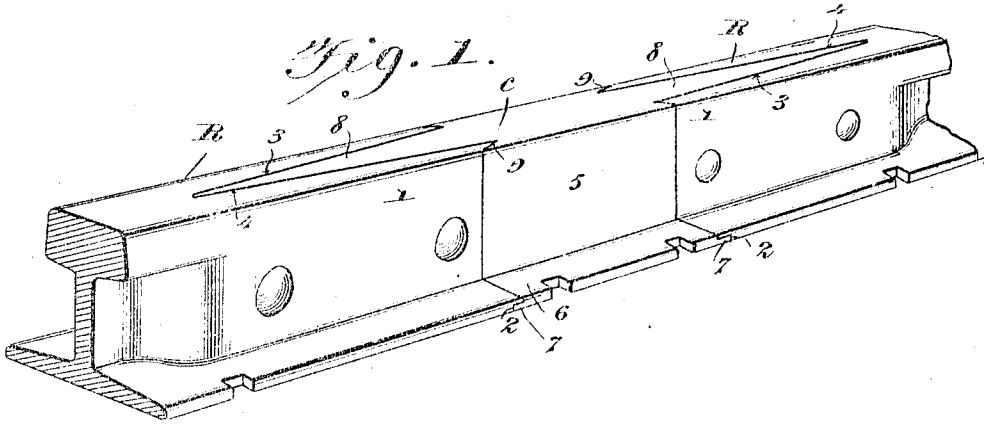


Fig. 2.

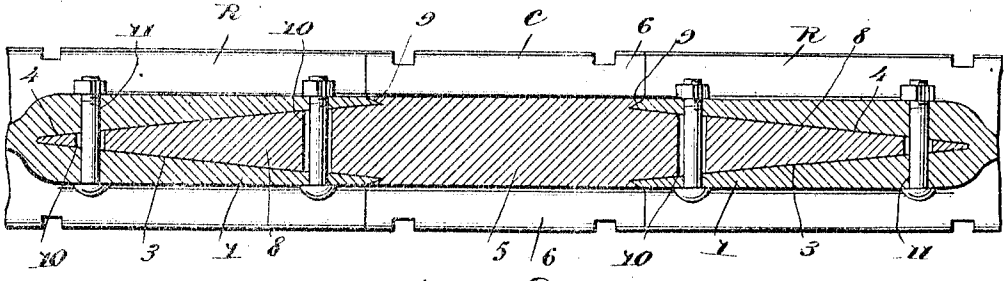


Fig. 3.

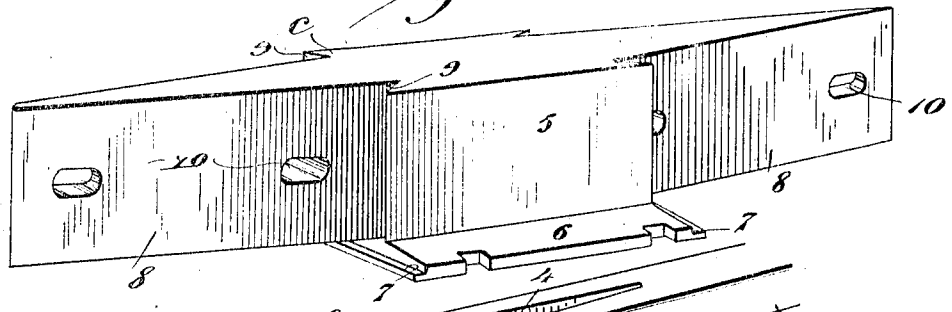
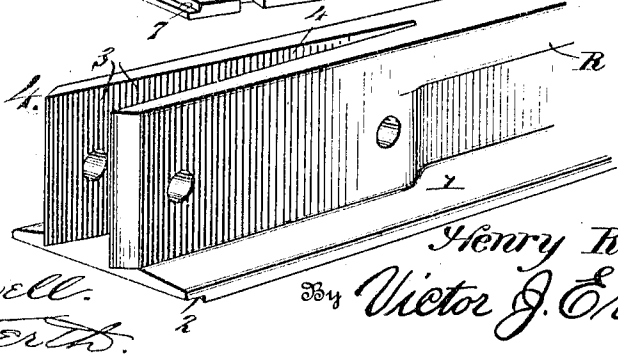


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY RIDDLE, OF NORTH LIBERTY, IOWA, ASSIGNOR OF ONE-THIRD TO FRANK RIDDLE, ONE-THIRD TO JAMES RIDDLE, AND ONE-THIRD TO EMIL RIDDLE, ALL OF NORTH LIBERTY, IOWA.

RAIL-JOINT.

1,080,481. Specification of Letters Patent. Patented Dec. 2, 1913.

Application filed April 8, 1913. Serial No. 759,741.

To all whom it may concern:

Be it known that I, HENRY RIDDLE, a citizen of the United States, residing at North Liberty, in the county of Johnson and State of Iowa, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention relates to improvements in rail joints, and resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the accompanying drawings there has been illustrated a simple and satisfactory reduction of my improvement to practice, and in said drawings: Figure 1 is a perspective view illustrating two rail ends connected in accordance with the present invention, Fig. 2 is a horizontal sectional view of the same, Fig. 3 is a perspective view of the rail chair, and Fig. 4 is a similar view of one of the rail ends.

Referring now to the drawings in detail, R—R designate the rails and C the joint chair for connecting the rails. The rails R have their bodies of the ordinary construction, but the ends of the said rails have the web thickened to the thickness of the heads of the rails, as indicated by the numerals 1. The ends of the base flanges of the rails have their underfaces recessed transversely to provide each of said ends with what I will term a groove 2. The enlarged portions 1 of the rails project a suitable distance beyond the terminals of the base flanges of the rails, the said projecting portions being beveled or inclined from their outer edges toward the sides of the rails, as indicated by the numerals 3. The ends of the rails R are each cut away longitudinally from the inclined ends 3, and the inner walls thus provided are vertically straight but inclined or converged toward each other, so that each of the rail ends is formed with a substantially V-shaped pocket 4, the same opening to the upper face of the heads or tread portions of the rails, and the lower wall thus provided being horizontally straight and in a plane with the central or thickened portion of the base flanges of the rails.

The chair C comprises a central body portion 5 which is shaped to correspond with the enlarged ends of the rails and which has its outer vertically straight side walls integrally formed with base flanges 6. The base flanges have their ends arranged transversely of or at a right angle to the longitudinal plane of the body 5, and the said ends of the body and base flanges are formed with outwardly extending ledges 7. The ends of the body are centrally provided with substantially V-shaped tongues 8, the said tongues being adapted to fit snugly within the V-shaped pockets provided upon the rail ends. The tongues terminate with the base flange 6 of the body 5, and the ends of the body, at its juncture with the inclined side walls of the tongues 8 are formed with angular depressions 9 which are when the joint is assembled, adapted to receive the inclined ends 3 of the rail ends. Also when the joint is assembled the ledges 7 are adapted to engage within the grooves 2, and thus it will be noted that a downward movement of the rails at the joint is effectively prevented, as is also a lateral independent movement of the rails or a lateral independent movement of the chair, at the joint.

The vertically V-shaped tongues 8 are provided with elongated openings 10, and the sides of the rails at the ends thereof are provided with bolt openings 11 which register with the openings 10 when the joint is assembled, the said openings being adapted for the reception of the usual securing nuts and bolts, and the base flanges of the body are adapted to receive the usual retaining spikes, the longitudinal edges of the said flanges being preferably formed with notches for the reception of the spikes.

From the above description, taken in connection with the accompanying drawings, the simplicity of the device, as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such inventions appertain without further detailed description.

Having thus described the invention, what I claim as new is:

1. In a rail joint, two rails, each of said rails having its end enlarged and extending beyond its base, the said extending portions being inclined from their ends to the sides of the rails, the said rail ends being centrally slotted, the side walls of said slot being inclined toward each other and opening at the top of the rails to provide a substantially V-shaped pocket, a chair, said

chair comprising a body portion conforming to the cross sectional contour of the enlarged rail ends, the body having its ends provided with centrally arranged longitudinally extending tongues, the opposite walls of said tongues being inclined toward each other, the opposite ends of the body adjacent its juncture with the tongues being depressed inwardly and angularly toward the tongues, the said tongues adapted to be received within the V-shaped pockets of the rail ends, the angular depressions at the corners of the body adapted to receive the inclined projecting ends of the rails, and means for securing the tongues within the V-shaped pockets.

2. In a rail joint, two rails having their ends enlarged, said ends projecting beyond the ends of the base flanges of the rails, the ends being slotted to provide V-shaped pockets, the side walls of which are vertically straight and open at the tops of the rails, and the lower wall of the pocket being horizontally straight, the projecting portions of the ends being inclined inwardly toward the sides or body of the rails, the underface of the base of the rails at the end thereof having a transverse groove, a chair, said chair including a body which is shaped to conform to the cross sectional formation of the enlarged ends of the rails, the ends of the body, at the base thereof, being formed with outwardly extending ledges, the ends, above the ledges, being centrally provided with longitudinally extending tongues, the side walls of which incline toward the ends of the tongues, the body, at its juncture with the tongues, having its corners undercut, the tongues of the body adapted to be received within the pockets of the rail ends, the inclined extending portions of the rail ends adapted to be received within the inclined recesses of the corners of the body of the chair, and the ledges of the body adapted to underlie the upper wall of the grooves of the ends of the rails when the joint is assembled, and means for securing the tongues within the pockets of the rails.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY RIDDLE.

Witnesses:
W. S. FILES,
PEARL MYLES.