J. P. WEBB.

RAIL JOINT.

APPLICATION FILED SEPT. 29, 1910.

**1,001,913.** **Patented Aug. 29, 1911.**

*Fig. I.*

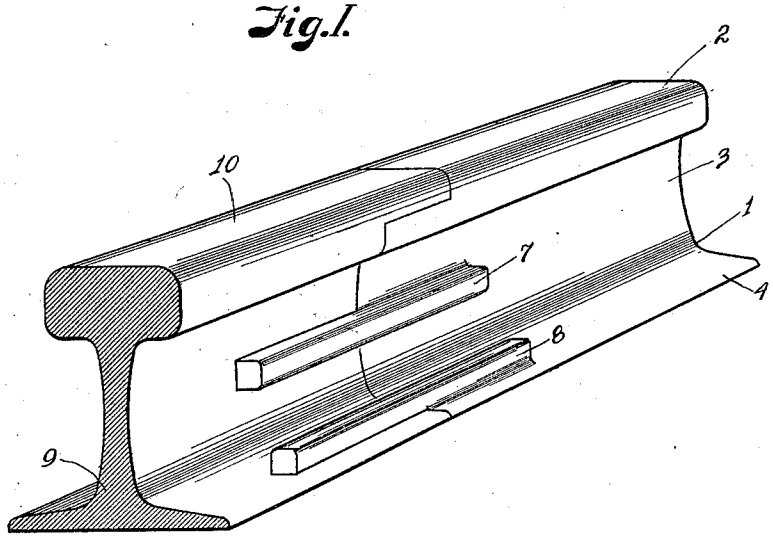



*Fig. II.*

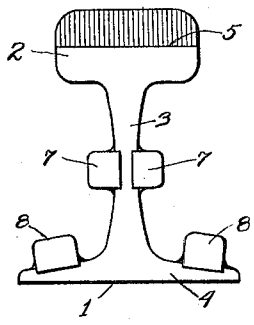
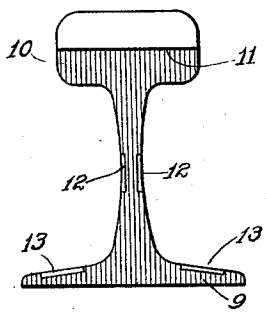



*Fig. III.*




WITNESSES.

Arthur W. Caps.

Myrtle M. Jackson.

INVENTOR.

Jas. P. Webb.

BY

Arthur C. Brown

ATTORNEY.

# UNITED STATES PATENT OFFICE.

JAMES P. WEBB, OF EMERSON, OKLAHOMA, ASSIGNOR OF ONE-HALF TO GEORGE H. MOODY, OF REMINGTON, OKLAHOMA.

## RAIL-JOINT.

1,001,913. Specification of Letters Patent. **Patented Aug. 29, 1911.**

Application filed September 29, 1910. Serial No. 584,386.

*To all whom it may concern:*

Be it known that I, JAMES P. WEBB, a citizen of the United States, residing at Emerson, in the county of Comanche and State of Oklahoma, have invented certain new and useful Improvements in Rail-Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to railway rails and has for its object to provide means for joining the ends of abutting rails, so as to obviate the use of the ordinary fish plates or other separate rail joining devices. In accomplishing this object I have provided the improved details of structure which will presently be fully described and are illustrated in the accompanying drawings, in which:—

Figure I is a perspective view of the abutting portions of two railway rails constructed according to my invention. Fig. II is an end view of one rail, showing the joining ribs. Fig. III is an end view of the other rail, showing the rib grooves.

Referring more in detail to the parts:—1 designates a railway rail having the ordinary ball 2, web 3, and base 4, with the exception that the upper face of the ball is cut away at one end to form the horizontal seat 5. Integral with and projecting longitudinally from the opposite sides of the web 3 are ribs 7, and extending longitudinally from the upper faces of the opposite portions of the rail base 4, are like ribs 8.

Abutting against the rail 1 is a rail 9, the web and base of which are cut away at the end to expose the under portion of the ball 10, which in turn is cut away on its under face to provide a downwardly facing seal 11, adapted to fit over the seat 5 of the ball of rail 1, so that the tread of the rails may extend in an unbroken plane, and the ends of the rail webs and bases may abut snugly against each other. In the web of rail 9 are the side grooves 12, into which the ribs 7, on the rail 1, are adapted to project when the rails are brought together, so that the ribs may seat snugly within the grooves. In the upper face of the base of rail 9 are grooves 13, into which the base ribs 8, of rail 1, are adapted to project and seat in the same manner as described with reference to the ribs 7.

In constucting rails according to my invention, the ribs and grooves may be formed at the time the rails are made or, if desired, the ribs may be applied to the rails after the latter are manufactured, it being preferable to provide each rail with a set of ribs at one end and a set of grooves at the opposite end, so that when the rails are being laid, it is not necessary for them to be arranged in sets or pairs. It is also desirable that the end of the rail carrying the ribs, shall have the upwardly facing ball seat, so that when the rails are in use the projecting lip of the opposite rail will bear downwardly on the rib end of the adjacent rail, when a train is traveling in one direction, and when traveling in the opposite direction the ribs 7 and 8 will bear downwardly on the first named rail, so that the abutting rails are moved together to prevent pounding.

In laying the rails, the first may be set in place so that the grooves are located at the end against which the succeeding rail is to be placed. In placing the second rail the upwardly facing seat is moved below the over-hanging seat of the first rail and the ribs 7 projected into the grooves 12, so that when the bases are fixed to the cross ties in the ordinary manner a practically continuous rail is provided.

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

1. The combination with a rail, having longitudinal grooves in its web and base that open through one end thereof, of a rail having ribs projecting longitudinally from one end thereof and adapted for projection into the grooves in said first named rail, for the purpose set forth.

2. The combination with a rail having a web and base provided with longitudinal grooves on each side thereof, of a rail having a web and base provided with ribs on each side thereof, said ribs being projected longitudinally from one end of the web and base and adapted to seat in the grooves in said first named rail, when the two are placed end to end, substantially as set forth.

3. The combination with a rail having a

laterally facing groove in each side of its web and having an upwardly facing groove in each side of its base, of a rail having integral ribs, said ribs being projected longitudinally from one end of the rail and adapted to seat in the grooves in said first named rail, substantially as and for the purpose set forth.

4. The combination with a rail having an over-hanging ball portion provided with an under-cut seat and having grooves in its web and base, of a rail having its ball portion provided with a down-cut seat and having ribs on its web and base adapted for projection into the grooves in said first named rail when the rails are brought end to end, substantially as set forth.

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

JAMES P. WEBB.

Witnesses:
ELMER G. CRUM,
FRED C. SUTTON.