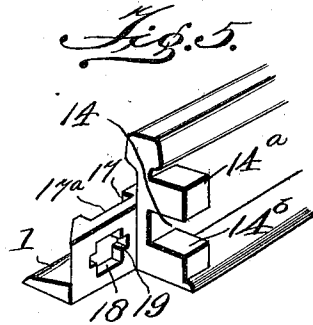
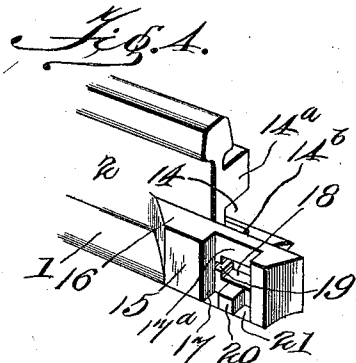
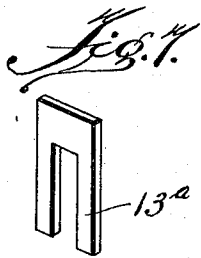
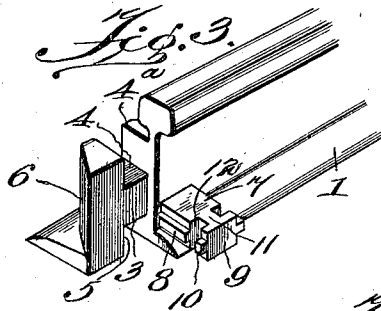
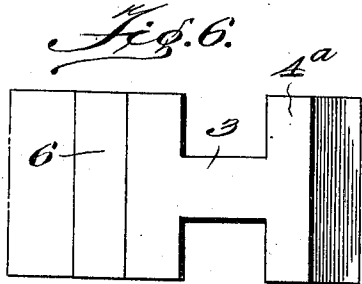
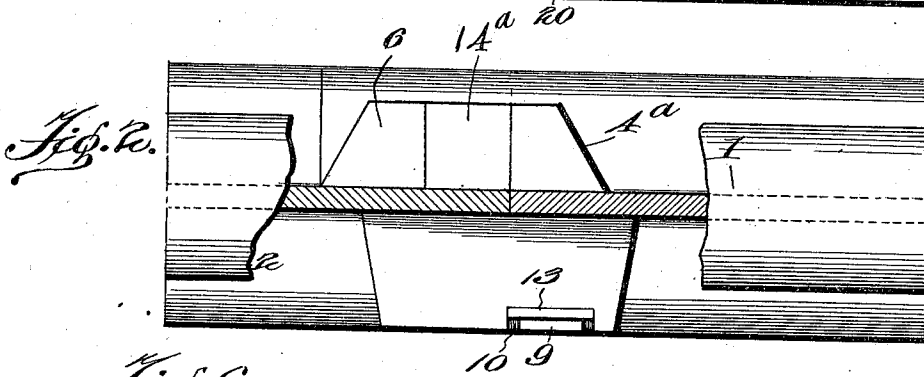
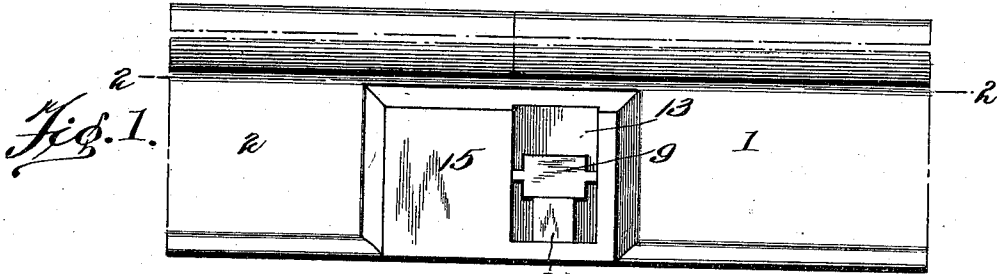


J. H. SALE.  
RAIL JOINT.

APPLICATION FILED NOV. 18, 1910.

1,002,183.

Patented Aug. 29, 1911.



Witnesses  
Byron B. Collins  
J. E. Musta

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his Attorneys.

# UNITED STATES PATENT OFFICE.

JOHN HARVEY SALE, OF ROSELAND, LOUISIANA, ASSIGNOR OF ONE-SIXTH TO W. M. JONES, ONE-SIXTH TO M. E. GARRISON, ONE-SIXTH TO ROBERT BENNETT, AND ONE-SIXTH TO J. W. WILKINSON, ALL OF DENHAM SPRINGS, LOUISIANA, AND ONE-SIXTH TO M. BENEDICT, OF PINEVILLE, LOUISIANA.

## RAIL-JOINT.

1,002,183.

Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed November 18, 1910. Serial No. 593,057.

To all whom it may concern:

Be it known that I, JOHN H. SALE, a citizen of the United States, residing at Roseland, in the parish of Tangipahoa and State of Louisiana, have invented certain new and useful Improvements in Rail-Joints; and I do hereby 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.

This invention relates to improvements in rail joints and is particularly designed to provide a joint which will rigidly hold together the ends of adjoining rails without the necessary employment of fish plates, bolts, and other fastening means.

While the invention is not restricted to the exact details shown and described, still for the purpose of disclosure, reference is had to the accompanying drawings illustrating a practical and preferred embodiment of the invention, and the particular features of novelty will be more succinctly pointed out in the claims.

In the accompanying drawings, in which like characters designate the same parts throughout the several views: Figure 1 is a view in side elevation looking toward the inside of a pair of adjoining rails interlocked by my improved joint; Fig. 2 is a plan view, partly in longitudinal section below the head of the rail, along the line 2—2 of Fig. 1; Fig. 3 is a perspective view looking toward the inside end of the male member of the joint; Fig. 4 is a similar view of the female member of the joint; Fig. 5 is a perspective view looking toward the inside end of the female member; Fig. 6 is a view in elevation looking toward the outside face of the male member of the joint with the tread and base flange of the rail omitted; and Fig. 7 is a perspective view of a key or locking staple.

1 designates a rail provided at one end with the male member of the joint hereinafter described, and cooperating with the opposite end of a rail 2 provided with the female member of the joint.

Referring to the male member more clearly illustrated in Fig. 3, the rail end is recessed or cut away forming the rectangular or square neck 3 having the upper and

lower recesses 4 and 5, and an abutting tongue portion 6, disposed vertically and on the outside of the vertical web of the rail. 7 is a horizontal projection provided on its sides with ribs 8 and terminating in a locking head 9 having horizontal projecting lugs 10 disposed in line with said ribs 8, the head 9 being separated from the projection 7 by a neck portion 11 forming locking recesses 12 to receive a locking staple 13 (Fig. 7).

The female member of the joint more clearly shown in Fig. 4, consists of a reinforcing block 15 terminating at its upper edge 16 below the tread of the rail. This reinforcing member 15 is recessed vertically as at 17 and has a rectangular aperture 18 cut therethrough with horizontal grooves 19 at each side thereof and a guiding lug 20 at the bottom thereof, the outer face of the guiding lug lying substantially in alinement with the reinforcing plate 15, and forming with the side walls of the recess 17 additional recesses 21 to receive the locking staple.

In joining rail ends it will be obvious from the foregoing that the male member is forced inwardly laterally of the female member of the joint, the inner face of the vertical extension 6 resting against the vertical web of the rail 14, and the horizontal extension 7 passing through the rectangular opening 18, the ribs 8 fitting in the grooves 19. In this position the head 9 and neck 7 are disposed above the lug 20 and the legs 13<sup>a</sup> of the locking key 13 are passed between the inside face 17<sup>a</sup> of the recess 17 and on each side of the neck 7, lying in the recess 12 and holding the joint firmly locked together.

It will be seen from Fig. 2 that the outside faces of the ends of the rails may be reinforced by lateral extensions making the vertical web of each rail a little thicker at the position of joinder with its adjacent rail. For instance, the end of the rail 2 is provided with laterally projecting lugs 14<sup>a</sup> and 14<sup>b</sup> formed integrally with the vertical web, the space 14 formed between the portions 14<sup>a</sup> and 14<sup>b</sup> comprising a recess adapted to receive the neck 3 of the male member, the portions 14<sup>a</sup> seating in the recess 4 and the portion 14<sup>b</sup> seating in the recess 5 of the

male member. It will also be noted that the web adjacent the male member of the joint is thickened, the neck 3 and the vertical tongue 6 being formed from said thickened portion, and the projection 4<sup>a</sup> being an integral part of the vertical web, the tread and the base flange of the rail.

What I claim is:

1. A male member of a rail joint located at one end of a rail and comprising an enlarged portion formed on the outside of the vertical web of the rail and cut away to form a vertical tongue extending the depth of said web and a restricted neck forming an upper and a lower recess between said tongue and the end of the rail, in combination with a female member comprising an upper and a lower lug extending laterally from the outside face of the web of the rail and spaced apart to form a recess to receive the restricted neck of said male member, with said upper and lower lugs seating in said upper and lower recesses, the whole forming an interlock against vertical displacement, and means locking the ends of said rails against lateral displacement, substantially as described.

2. A male member of a rail joint located at one end of a rail in combination with a female member formed on the abutting end of a second rail cooperating together to form an interlock against vertical displacement, and means for locking the joined ends of the rails against lateral displacement comprising a longitudinal projecting reinforcement carried at the inside of the female member of said joint and having a

horizontal aperture therethrough, a horizontal projection carried at the inside of the male member of said joint and projecting through said horizontal aperture, and a key for locking said horizontal projection and said longitudinal reinforcing projection, substantially as described.

3. A male member of a rail joint located at one end of a rail in combination with a female member formed on the abutting end of a second rail cooperating together to form an interlock against vertical displacement, and means for locking the joined ends of the rails against lateral displacement comprising a longitudinal projecting reinforcement on the female member of said joint, said reinforcing projection being provided with a vertical recess and a horizontal aperture, and said male member end of the rail being provided with a horizontal projection having a pair of vertical recesses forming a restricted neck and a head portion adapted to be passed through said horizontal aperture and seated within said vertical recess of said reinforcing member, and a locking-staple operating in said vertical recess of the reinforcing member and having its legs arranged in the said vertical recesses of said horizontal projection, substantially as described.

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

JOHN HARVEY SALE.

Witnesses:

W. B. JONES,  
L. M. BENNETT.