

No. 886,107.

PATENTED APR. 28, 1908.

T. C. ADAMS.  
RAIL JOINT.

APPLICATION FILED NOV. 27, 1907.

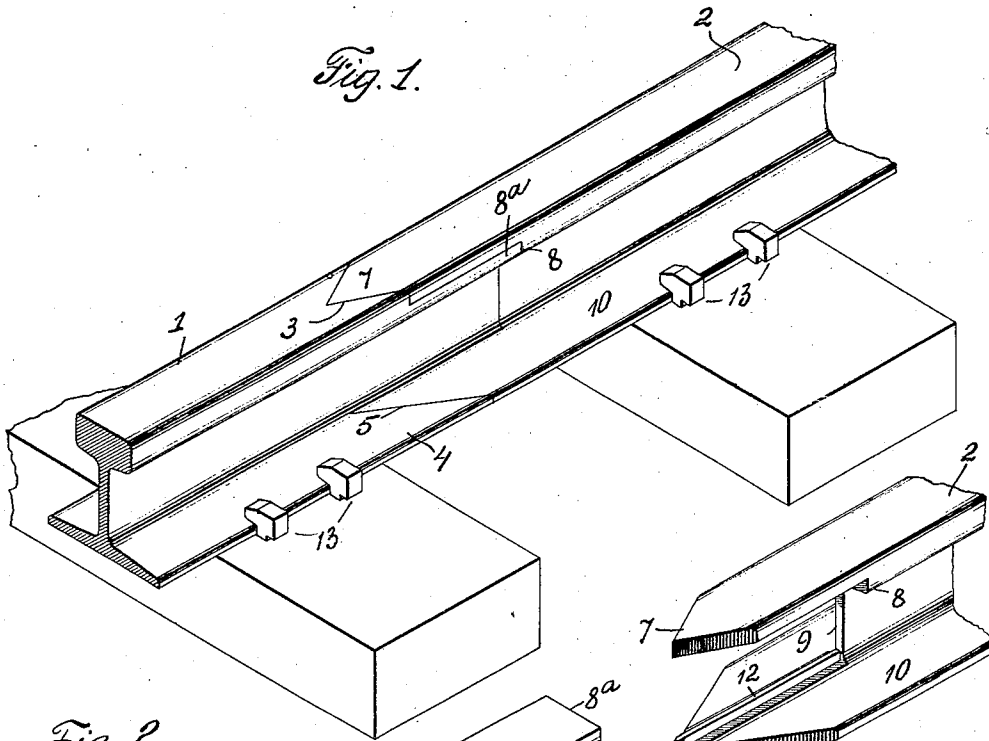


Fig. 1.

Fig. 2.

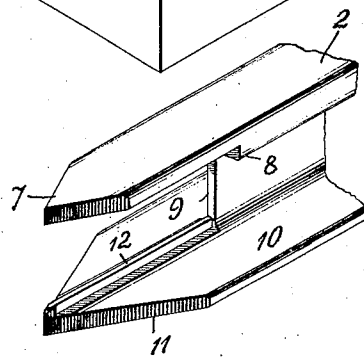
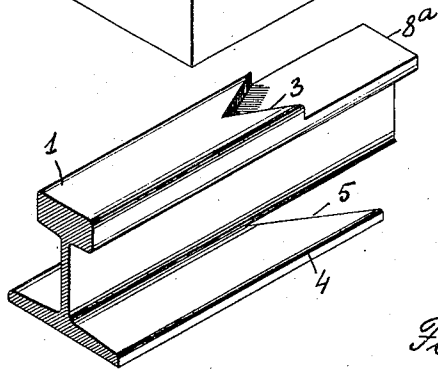


Fig. 3.

Fig. 4.

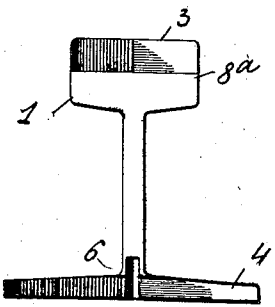
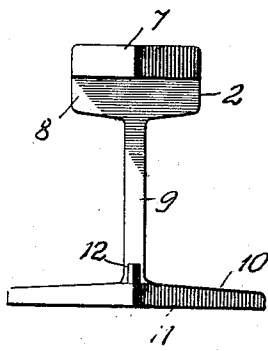


Fig. 5.



Inventor  
Theophilus C.  
Adams.

Witnesses  
J. S. Fogarty  
Max Brodsky

Attorneys  
H. C. Everett & Co.

# UNITED STATES PATENT OFFICE.

THEOPHILUS C. ADAMS, OF FREEPORT, PENNSYLVANIA.

## RAIL-JOINT.

No. 886,107.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed November 27, 1907. Serial No. 404,193.

*To all whom it may concern:*

Be it known that I, THEOPHILUS C. ADAMS, a citizen of the United States of America, residing at Freeport, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints, and its object is to provide a connection between the meeting ends of railway rails, which will be firm and reliable, and avoid the employment of splice-bars or fish-plates and bolts and nuts.

The distinguishing feature of the invention is, that the ends of the rails are formed to interlock, to provide a continuous rail, without the use of supplemental connections.

The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawing, forming a part of this specification, and its novel features will be set forth in the appended claims.

In the drawing: Figure 1 is a view in perspective of a rail joint embodying the invention, Fig. 2 is a similar view of one rail disconnected, Fig. 3 is a similar view of the other rail, Fig. 4 is an end elevation of the rail shown in Fig. 2, and Fig. 5 is a similar view of the rail shown in Fig. 3.

The reference numeral 1 designates one of the rails, and 2 the other rail of the joint. The rail 1 has a portion of its tread cut away to reduce its thickness, and is recessed to form a triangular recess 3. The base 4 of the rail is also cut away and recessed to provide a triangular seat 5. The under surface of the web of the rail 1 is formed with a central groove 6. The rail 2 has its tread beveled to provide a projection 7 fitting the recess 3, and a shoulder 8 against which the projecting end 8<sup>a</sup> of the tread of the rail 1 bears. The web of the rail 2 is cut away as at 9, and the base 10 is beveled, providing a projection 11 fitting the seat 5 and formed with a tongue 12 fitting the groove 6 when the two rails are joined.

In cutting away the web of the rail 2, a part of the tread is also cut away, so that the projecting or remaining part that overlaps onto the rail 1 is of a thickness equal to the depth of the cut-away portion of the tread

rail 1, this bringing the upper surface of both treads in the same plane when the rails are joined.

Both rails are secured to the ties by spikes 13, and the utility of the improvement will be apparent from the foregoing description, in connection with the drawing. It will be observed that both the base and tread portions of the meeting ends of the rails are positively interlocked, and that the interlocking connection of the projections 7 and 11 with their seats is supplemented and reinforced by the tongue and groove connection, designated by the numerals 6 and 12.

The improved joint not only avoids the use of splice-bars, or fish-plates, and consequently bolts and nuts, but provide a practically continuous rail, the beveled surfaces of the seats 3 and 5, and projections 7 and 11 avoiding "pounding" of the rail ends by the wheels of the rolling stock.

Having now described my invention what I claim as new, is:—

In a rail joint, the combination of the rail 1 having the tread thereof cutaway at its end, the inner end of said cutaway portion terminating in a V-shaped recess, said rail 1 also having a V-shaped cutaway portion in its base at the end thereof, the said cutaway portion in the base being equal in length to the cutaway portion in the tread, and said rail 1 further having a groove in the base of its web equal in length to said cutaway portions, and the rail 2 having its web cutaway at the end and the underneath portion of its tread also cutaway, the remaining portion of said tread being equal in thickness to the depth of the cutaway portion in the tread of the rail 1, the end of said tread and of the base of the rail 2 being V-shape to fit respectively with the V-shaped recess in the tread and V-shaped cutaway portion in the base of the rail 1, and a tongue carried by the base of the rail 2 and engaging in the groove in the web of the rail 1.

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

THEOPHILUS C. ADAMS.

Witnesses:

THEODORE F. NEWLIN,  
MAY G. FAIR,  
G. W. SYLVIS.