

S. SHIRLEY.  
RAILWAY JOINT.  
APPLICATION FILED JAN. 18, 1910.

995,189.

Patented June 13, 1911.

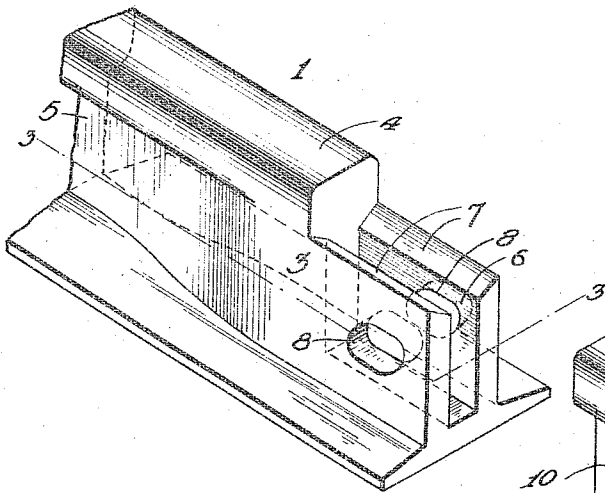


Fig. 1.

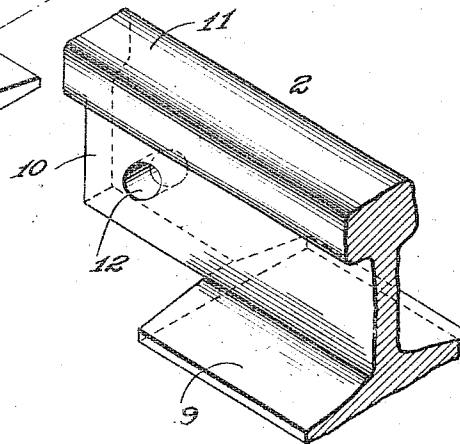


Fig. 3.

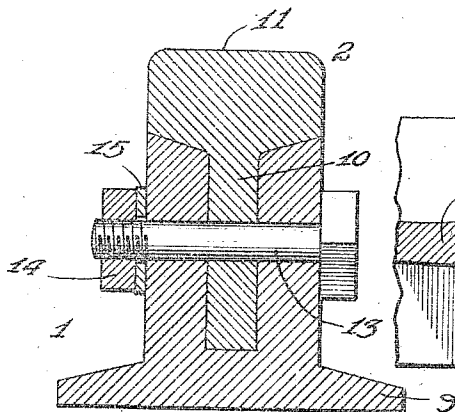
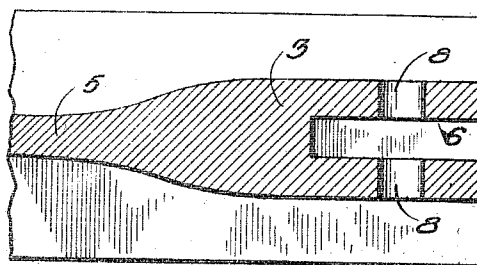


Fig. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

STEWART SHIRLEY, OF BLAIRSVILLE, PENNSYLVANIA.

## RAILWAY-JOINT.

995,189.

Specification of Letters Patent. Patented June 13, 1911.

Application filed January 18, 1910. Serial No. 538,618.

*To all whom it may concern:*

Be it known that I, STEWART SHIRLEY, a citizen of the United States, residing at Blairsville, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints, and the principal object of the same is to construct the meeting ends of rails so that they may have an interlocking connection and be held in a rigid relative position without the use of side plates, splice bars or the like.

In carrying out the object of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawing, wherein:—

Figure 1 is a fragmentary detail perspective view of the meeting ends of two rails shown in a separated condition. Fig. 2 is a vertical sectional view of the same as they appear when assembled. Fig. 3 is a horizontal sectional view taken on the line 3—3, Fig. 1.

Referring to said drawings by numerals 1—2, designates the two rails that are to be joined. Rail 1 at one of its ends has its web portion thickened as indicated at 3 so that the same is substantially flush with the outer sides of the tread 4, said thickened portion merging into the usual web 5. The tread portion 4 is cut away at the thickened portion 3 of the web and said thickened portion is centrally slotted to provide a vertical socket 6 the top edges of the sides of which are beveled as indicated at 7 and are a continuation of the under surface of the tread 4. The sides of the thickened portion 3 are each pierced by a transverse opening 8, said openings being in alinement.

Rail 2 that is to be joined to rail 1 has its flange cut away at its joining end for substantially the same length as the length of the thickened portion 3 of rail 1, so that its web 10 may be fitted within the socket 6 of rail 1, and the beveled upper edge 7 of the

sides of socket 6 fitted firmly upon the under surface of the tread 11 of rail 2, and the end of tread 11 and web 10 will have flush contact with the similar end of tread 4 and web 5 of rail 1. Web 10 of rail 2 is provided with a transverse opening 12 which registers with opening 7 through the sides of socket 6 when rails 1—2 are joined, so that a fastening bolt 13 may be passed through said alined openings and be locked in its fastening position by the nut 14 and washer 15.

It will be seen from the foregoing that rail 2 may be raised and its end dropped into engagement with the socketed end of rail 1 or that it may be moved longitudinally to slide its web 10 into said socket.

It will also be seen that when assembled the bolt 13 will firmly hold the two rails in interlocking nested engagement so that relative movement of the same is prevented, yet the same may be readily separated by removing said bolt.

In the foregoing description and in the accompanying drawings but one end of each rail has been shown. It will be understood however that the end of rail 1 that is not shown is similar to the end of rail 2 and the end of rail 2 that is not shown, is similar to the socketed end of rail 1.

What I claim as my invention is:—

A rail joint comprising the meeting ends of two rail sections one of which having a small portion of its flange cut away, the remainder of the rail being left intact to present a web end having smooth unbroken sides, and provided with a single circular opening therein, the other section of rail end having a portion of the tread cut away to correspond with the length of the cut away portion of said flange, the web of the last mentioned end being gradually thickened to correspond in width to the tread, said thickened portion having a recess formed therein to receive the web of the first mentioned rail end, the inner sides of the recess presenting smooth unbroken surfaces to permit of the first rail end to be adjusted either longitudinally or vertically into said recess, said recess further having its opposite walls provided with continuously downwardly inclined upper surfaces against which the underside of the tread of

the first mentioned rail end wholly rests  
when both of said rail ends are in engage-  
ment, said recessed portions having oppo-  
sately disposed oblong openings which regis-  
5 ter with said circular opening, and a single  
bolt inserted through said single and ob-  
long openings.

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

STEWART SHIRLEY.

Witnesses

W. H. STITT,  
REUBEN AXE.