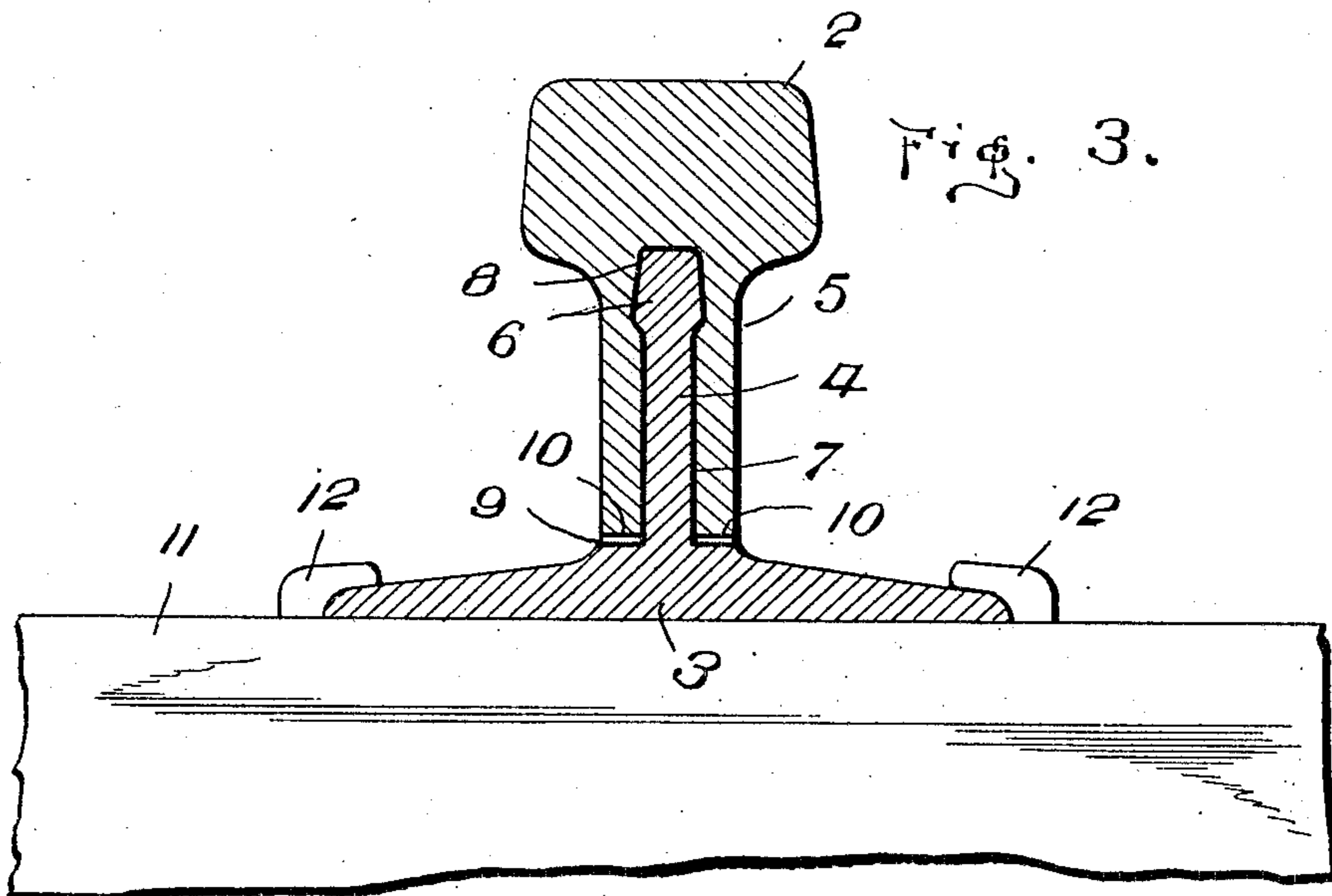
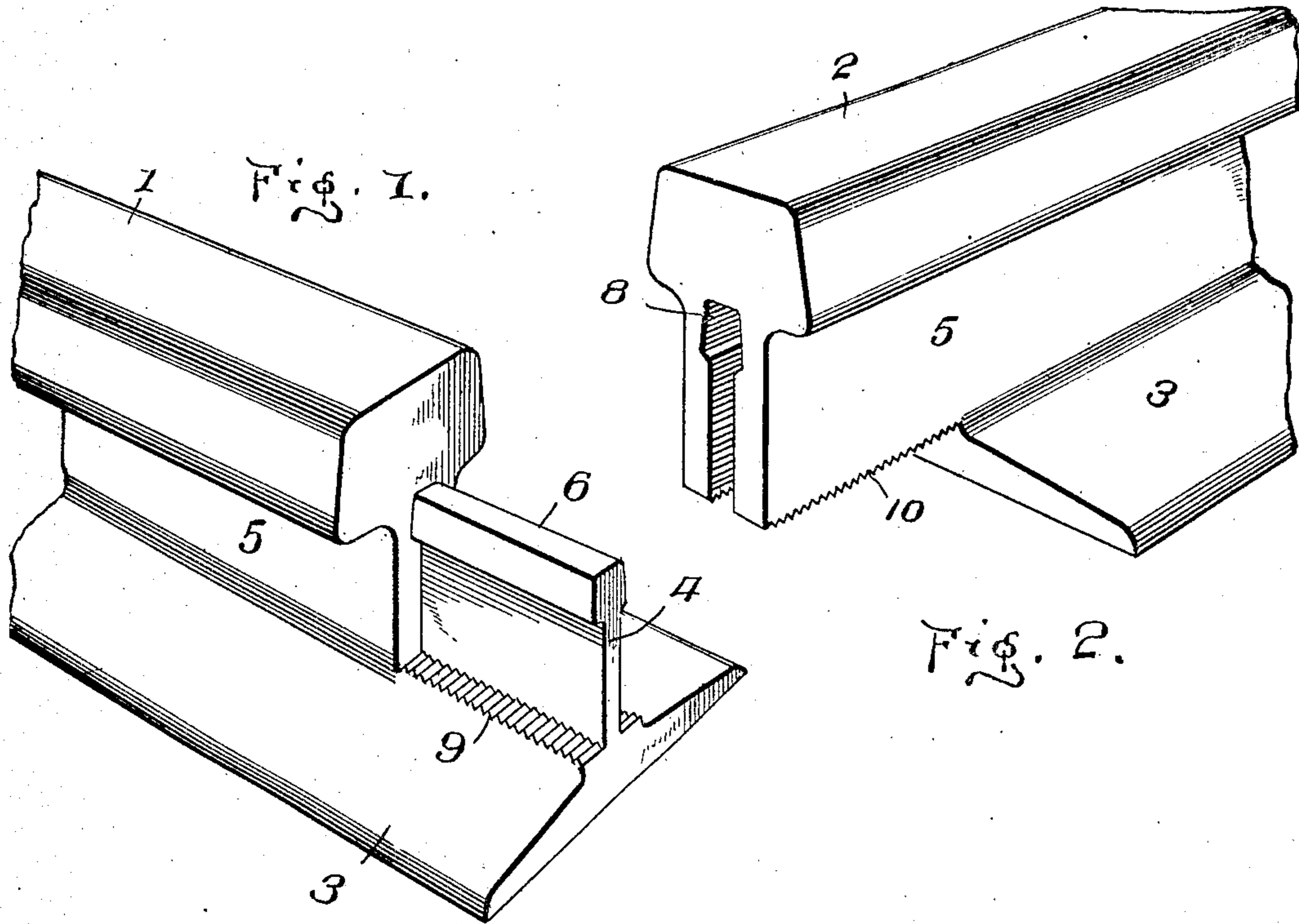


No. 849,607.

PATENTED APR. 9, 1907.

W. L. GRANT.  
RAIL JOINT.

APPLICATION FILED JULY 18, 1906.



W. L. Grant <sup>Inventor</sup>

Witnesses  
Thos. W. Riley  
Maisy Harrison.

By *W. J. Fitzgerald & Co.*  
Attorneys

# UNITED STATES PATENT OFFICE.

WILLIAM LEE GRANT, OF COLUMBIA, TENNESSEE.

## RAIL-JOINT.

No. 849,607.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed July 18, 1906. Serial No. 326,726.

*To all whom it may concern:*

Be it known that I, WILLIAM LEE GRANT, a citizen of the United States, residing at Columbia, in the county of Maury and State of Tennessee, 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.

My invention relates to new and useful improvements in rail-joints; and my object is to provide means to secure the meeting ends of the rails together without employing the use of bolts or fish-plates.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings, which are made a part of this application, Figure 1 is a perspective view of one end of the rail, showing the same provided with a suitable tongue or web. Fig. 2 is a perspective view of one end of the rail, showing the same provided with a socket to receive the tongue on the opposite rail; and Fig. 3 is a vertical sectional view through the joint when the ends of the rail are secured together.

Referring to the drawings, in which similar reference-numerals designate corresponding parts throughout the several views, 1 and 2 indicate the meeting ends of a pair of rails, the rail 1 having its base 3 prolonged beyond the end of the rail, to the central upper portion of which is secured a web 4, said web being of less thickness than the web 5 of the rail proper, while the upper edge of said web is provided with a head 6, said head being in general outline similar to the tread-surface of the rail proper.

The base 3 of the rail 2 is shorter than the rail proper, the projecting end of the rail being provided with a slot 7, in which is adapted to take the web 4 of the rail 1, the upper end of said slot being enlarged to form a socket 8, in which is adapted to be seated the head 6.

When the rails 1 and 2 are assembled together, the lower edge of the projecting web 5 of the rail 2 rests upon the contiguous portion of the base 3, and, if desired, the upper surface

of the base 3 may be provided with a plurality of corrugations 9, while the lower edge of the web 5 of the rail 2 may be provided with similarly-disposed corrugations 10, so that when the rails are butted together the corrugations 10 will engage the corrugations 9 and prevent casual removal of the rail 2 from the rail 1, and thereby providing a firmer connection between the two parts. I do not, however, desire to be confined to the use of corrugations, as they may be dispensed with, if necessary.

After the rails have been properly connected they are secured to the ties 11 by means of the usual or any preferred form of rail-spike 12.

By this construction it will be seen that the use of the usual form of fish-plates and bolts to secure the rails together are dispensed with, as the web 4 will be of sufficient strength to hold the parts of the rail securely in place, and after the two ends of the rails are telescoped with one another and secured to the tie by means of spikes or the like it will be impossible for the rails to separate. It will further be seen that I have provided a form of rail which may be readily joined together and secured to the ties and also that should a rail become broken it can be quickly removed and a new one readily inserted in its place.

What I claim is—

1. In a rail-joint, the combination with a rail, having an elongated base, a web on said base, and a head at the upper end of said web, of a rail having a projecting head and web, a slot in the web, a socket at the upper end of said slot, said slot and socket adapted to receive the web and head of the opposite rail, and means at each side of the web on said elongated base and the bottom of said projecting web adapted to interlock with each other whereby the meeting ends of said rails will be secured together.

2. A rail-joint comprising the meeting ends of two rails, one of said rails having an elongated base, a web extending upwardly from said base, a head at the upper end of said web, a plurality of corrugations on said base at each side of said web, the opposite rail having a slot in the projecting web there-

of and a socket at the upper end of said slot  
and a plurality of corrugations on the lower  
edge of said web, the web and head of the  
first-mentioned rail adapted to enter the  
5 slot and socket of the second-mentioned rail,  
whereby said rails will be secured together  
and the respective corrugations interlocked  
with one another.

In testimony whereof I have signed my  
name to this specification in the presence of 10  
two subscribing witnesses.

WILLIAM LEE GRANT.

Witnesses:

R. E. HAYNES, Jr.,

J. C. VOORHIES.