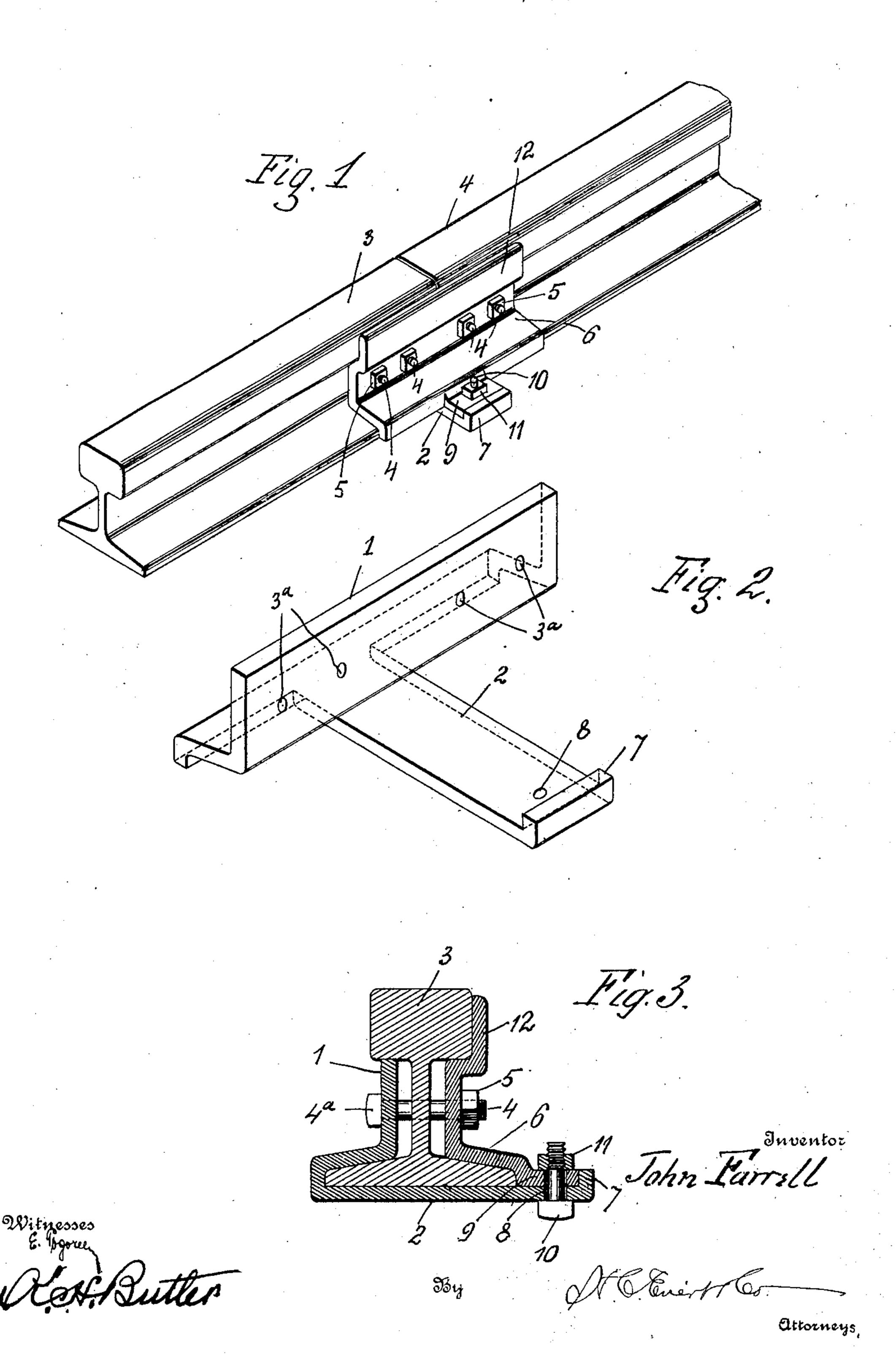
## J. FARRELL. RAIL JOINT. APPLICATION FILED SEPT. 21, 1907.



## UNITED STATES PATENT OFFICE.

JOHN FARRELL, OF WAYNESBURG, PENNSYLVANIA.

## RAIL-JOINT.

No. 896,716.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed September 21, 1907. Serial No. 393,971.

To all whom it may concern:

Be it known that I, John Farrell, a citizen of the United States of America, residing at Waynesburg, in the county of Greene 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 the invention has for its object to provide a novel joint wherein positive and reliable means are employed for connecting the confronting ends of two rails together, and bracing the outer sides of said rails at the connection.

The invention aims to avoid the spreading and tilting of rails, particularly upon curves, where the rails are subjected to considerable outward pressure, when heavy rolling stock 20 is passing over the same with considerable rapidity.

Besides preventing the spreading and tilting of rails, I prevent their vertical displacement by using a combined splice bar and base plate bracing the inner sides of two rails, while a novel splice bar adapted to be fastened to the base plate braces the outer sides of the rails.

The detail construction entering into my invention will be presently described and then specifically pointed out in the appended claim.

In the drawing: Figure 1 is a perspective view of a rail joint as constructed in accordance with my invention, Fig. 2 is a perspective view of a combined splice bar and base plate, and Fig. 3 is a cross sectional view of the improved rail joint.

To put my invention into practice, I construct a splice bar 1 with a central tongue 2 serving functionally as a base plate for the connection of rails 3 and 4. The splice bar 1 is provided with transverse openings 3<sup>a</sup> whereby it can be secured to the rails 3 and 4 by bolts 4<sup>a</sup> and nuts 5, these bolts and nuts also being used to hold a splice bar 6 in engagement with the outer sides of the rails 3 and 4.

The tongue 2 is provided with an upwardly bent end 7 and with a vertically disposed opening 8, whereby the projecting lug 9 of the splice bar 6 can be secured to the tongue 2 by means of a bolt 10 and a nut 11, the lug

9 being braced by the upwardly bent end 7 of the tongue 2. To further brace the outer 55 sides of the rails 3 and 4, the upper edge of the splice bar 6 is provided with an extension 12 engaging the outer sides of the rails 3 and 4, consequently bracing said heads, and relieving the web portions of the rails 3 and 4 60 of some of the pressure to which they are subjected, when rolling stock is passing over said rails. As the splice bar 1 and the tongue 2 are integral, it will be impossible for the rails 3 and 4 to tilt, at their connection, 65 especially when said rails are secured to the splice bar 1 by the bolts 4<sup>a</sup> and the nuts 5. The rail joint is particularly designed to lie between two ties, similar to the ordinary joint at present used, and by adding the 70 tongue 2 to the splice bar 1, and the lug 9 and extension 12 to the splice bar 6, little expense is incurred when the merits of the splice bars are considered as a safety factor in railway construction.

Any changes in the details of construction as fall within the scope of the appended claim can be resorted to without departing from the spirit of the invention.

Having now described my invention what 80

I claim as new, is;—

The combination with a pair of rails, of an inner splice bar terminating at its lower end approximately centrally in a laterally extending tongue having the free end thereof flanged, 85 said tongue constituting a base plate for the rails and of less width than the length of the splice bar, an outer splice bar positioned against the outer sides of said rails and having an apertured lug seated upon the tongue 90 and abutting against the flange of the tongue, means for securing the flange to the tongue, said outer splice bar provided with a longitudinal extension abutting against the lower face and side of the heads of said rails there- 95 by bracing the latter, said bracing extension terminating at a point in close proximity to the treads of the rails, and means for securing said splice bars and rails together.

In testimony whereof I affix my signature 100 in the presence of two witnesses.

JOHN FARRELL.

Witnesses:

GEORGE D. HUFFMAN, JERRY E. DEBOLT.