

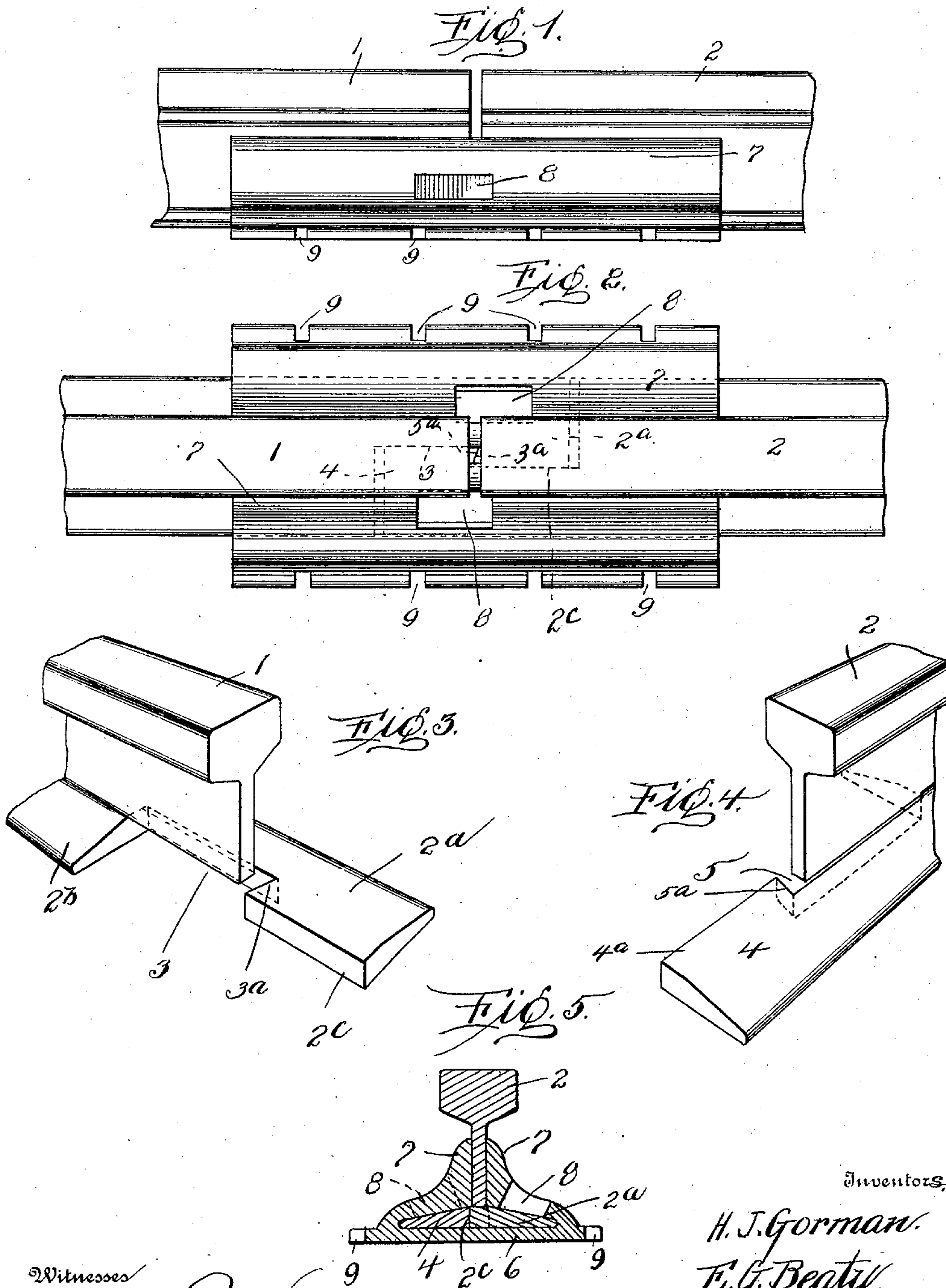
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RAIL JOINT.

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915,591.

Patented Mar. 16, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

HUGH J. GORMAN AND EDWIN G. BEATY, OF SMITHFIELD, WEST VIRGINIA.

## RAIL-JOINT.

No. 915,591.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed March 14, 1908. Serial No. 421,162.

*To all whom it may concern:*

Be it known that we, HUGH J. GORMAN and EDWIN G. BEATY, (1) subject of the King of England, (2) a citizen of the United States of America, residing at Smithfield, in the county of Wetzel and State of West Virginia, 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 certain new and useful improvements in rail joints, and the primary object of our invention is to provide a simple and inexpensive rail joint for connecting the confronting ends of two rails.

Another object of this invention is to provide a strong and durable rail joint wherein positive and reliable means are employed for preventing lateral and vertical displacement of rails.

A still further object of our invention is to dispense with the use of nuts and bolts as a fastening means for connecting the confronting ends of two rails.

A still further object of this invention is to provide a novel rail joint which will allow for extension and contraction without injuring or breaking any part of the joint.

A still further object of our invention is to provide a joint that can be easily and quickly assembled by unskilled labor, the joint being of such a construction as to withstand the wear and tear incurred by rolling stock passing over the same.

We accomplish the above objects by a structure that will be presently described and then specifically pointed out in the appended claim.

In the drawings, Figure 1 is a side elevation of a rail joint. Fig. 2 is a plan of the same. Figs. 3 and 4 are perspective views of rails adapted to confront one another and, Fig. 5 is a cross sectional view of our rail joint.

In the accompanying drawings, 1 designates a rail, which is cut whereby it will interlock with an adjoining rail. The head and web of the rail 1 are cut away providing a base extension 2<sup>a</sup>, upon one side of the rail. The base flange 2<sup>b</sup> upon the opposite side of a rail is cut away, providing a recess 3 beneath the web of a rail, this recess having a beveled edge 3<sup>a</sup>. The base flanges of the adjoining rail 2 are cut the reverse of a rail 1,

providing a base extension 4 and a recess 5 with a beveled edge 5<sup>a</sup>.

The formation of the recesses 3 and 5 provides the extensions 2<sup>a</sup> and 4 with tongues 2<sup>c</sup> and 4<sup>a</sup> respectively. When the rails 1 and 2 are placed together, the tongue 4<sup>a</sup> of the extension 4 is adapted to loosely fit in the recess 3 of the rail 1, and the tongue 2<sup>c</sup> of the extension 2<sup>a</sup> to loosely fit in the recess 5 of the rail 2. The beveled edges 3<sup>a</sup> and 5<sup>a</sup> will then confront one another, as illustrated in Fig. 2. It will thus be observed that the base extensions are inter-locked, but at the same time are constructed to allow for expansion and contraction, as can be readily seen by referring to the drawing.

The rails 1 and 2 are supported by a chair, said chair comprising a base plate 6 having integral splice bars 7 for embracing the confronting ends of the rails 1 and 2 and preventing lateral displacement. These splice bars are provided with diagonally disposed inspection openings 8, extending entirely through the base flange of the chair and located over the meeting ends of the base flanges of the rails, whereby the connection of the rails 1 and 2 can be readily observed and any damage done to the same remedied. The longitudinal edges of the chair are notched as at 9 whereby we can easily secure the chair to one or more ties by spikes or suitable fastening means (not shown).

It is thought from the foregoing description taken in connection with the drawings that our invention will be fully understood particularly by those skilled in the art of track maintenance.

We desire it to be understood that such changes in the size, proportion and minor details of construction as are permissible by the appended claim can be resorted to without departing from the spirit and scope of the invention.

Having now described our invention what we claim as new, is;—

In a rail joint, the combination of rails, the base flanges of said rails being cut away upon opposite sides to provide base extensions and recesses, the formation of said recesses providing said base extensions with tongues, the tongue of one base extension being adapted to loosely fit in the recess of the adjoining base extension and the tongue of said adjoining base extension loosely fit in the recess of



the first mentioned base extension, and a chair for embracing the confronting ends of said rails, said chair having diagonally disposed inspection openings extending entirely  
5 through the base flange of the chair and located over the meeting ends of the base flanges of the rails, as and for the purpose described.

In testimony whereof we affix our signatures in the presence of two witnesses.

HUGH J. GORMAN.  
EDWIN G. BEATY.

Witnesses:

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