

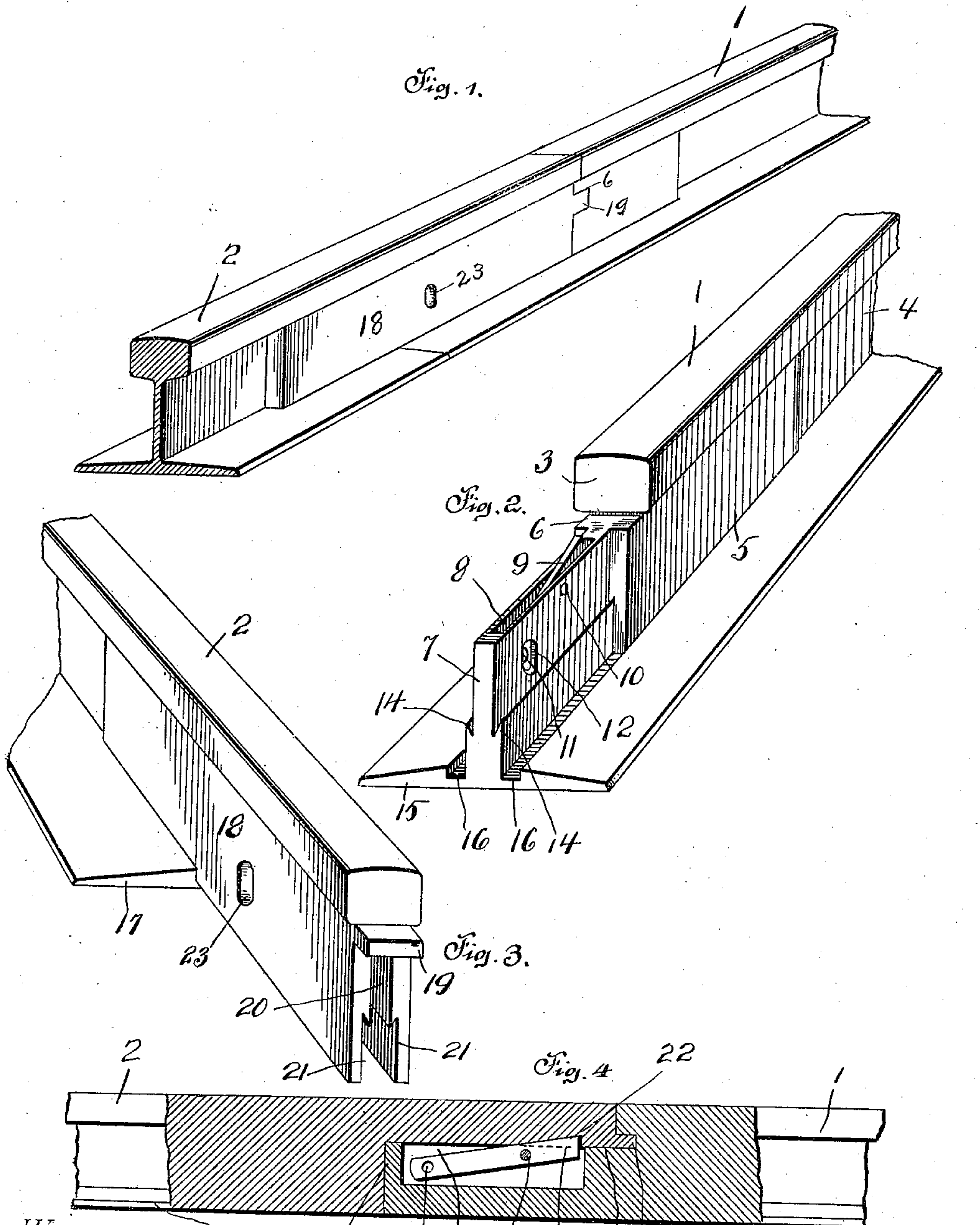
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E. M. PORTER & J. W. DAUBENSPECK.

RAIL JOINT.

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WITNESSES: 17  
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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT.

No. 844,399.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that we, EPHRAIM M. PORTER and JOHN W. DAUBENSPECK, citizens of the United States of America, residing at Kellettville, in the county of Forest 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 drawings.

This invention relates to certain new and useful improvements in rail-joints; and the invention has for its primary object the provision of novel means for locking the confronting ends of two sections of rails together, whereby one section cannot become displaced with relation to its adjoining section.

Another object of this invention is to dispense with the use of nuts and bolts and fish-bars and fish-plates in connection with a rail-joint.

With these and other objects in view, which will more readily appear as the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and then specifically pointed out in the appended claims.

Referring to the drawings forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a perspective view of two sections of rail locked together. Fig. 2 is a perspective view of one of the sections of rails. Fig. 3 is a similar view of the adjoining section of rail, and Fig. 4 is a longitudinal sectional view of the two sections of rail secured together.

To put our invention into practice, we use ordinary rails 1 and 2, the rail 1 having its head cut away, as at 3, and its web 4 provided with a reinforcement 5. The reinforcement 5 at the end of the head 3 is provided with a transverse slot 6 and is cut away to form an auxiliary web portion 7, having a vertically-disposed groove 8 formed therein. In the groove 8 is pivotally mounted a lever 9 by a pin 10, one end of said lever being heavier than its opposite end. The heavier end of said lever is provided with an opening 11, and the auxiliary web portion 7 is slotted, as at 12, whereby access may be had to the pierced end of the lever 9.

The auxiliary web portion 7 is formed with beveled shoulders 14, while the base 15 of the rail 1 is provided with grooves 16 at each side of the auxiliary web portion 7, said grooves extending back to the reinforcement 5.

The end of the rail 2 has its base cut away, as at 17, and the web portion of said rail is provided with a reinforcement 18. At the end of the reinforcement 18 directly beneath the end of the head of said rail is formed a transverse tongue 19, while the reinforcement 18 is provided with a slot 20, the sides of which are recessed, as at 21. In the roof or top of the slot 20 is formed a beveled recess 22, the object of which will presently appear. The reinforcement 18 upon its one side is provided with an opening 23.

To place the sections of rails 1 and 2 together, the section of rail 2 is slipped upon the auxiliary web portion 7 of the rail 1, the lower edge of the reinforcement 18 riding in the groove 16, the beveled shoulders riding in the recesses 21, while the tongue 19 recedes into the recess 6. As the section 2 is slipped upon the section 1 the shorter end of the lever 9 is depressed until the end of said lever reaches the beveled recess 22 of the section 2, at which time it assumes its normal position locking the two sections of rails together. The openings 12 and 23 are provided, whereby a suitable instrument can be inserted through the reinforcement 18 and the auxiliary web 7 to elevate the weighted end of the lever 9 and unlock the two sections of rails.

From the foregoing description it will be observed that we have devised a novel form of connection for rails that will insure a positive joint and practically a continuous tread for the rolling-stock of railways.

We do not care to confine ourselves to the minor details of construction entering into our invention, as such changes as are permissible by the appended claims may be resorted to without departing from the spirit and scope of the invention.

What we claim, and desire to secure by Letters Patent, is—

1. The combination of two rails, the confronting ends of said rails being cut away to be connected together, said rails having their web portions provided with reinforcements, one of the reinforcements being cut away to form an auxiliary web portion having a groove formed therein, a lever pivoted in said groove, the other of said reinforcements



being slotted to receive said auxiliary web, and recessed to receive the end of said lever, said reinforcement and auxiliary web portion having openings formed therein to permit of  
5 access being had to said lever, substantially as described.

2. In a rail-joint, the combination with the confronting ends of two sections of rails, of reinforcements carried by the ends of said  
10 rails, an auxiliary web portion carried by one of said reinforcements, a lever pivotally mounted in said auxiliary web, the other of said reinforcements being slotted to receive said web, and recessed to receive the end of  
15 said lever, and means whereby access may be had to said lever.

3. In a rail-joint, the combination with the confronting ends of two sections of rails, the head of one section being cut away, the base

of the other section being cut away, an auxil- 20  
iary web carried by one section, a reinforcement carried by the other section and fitting over said web, and means carried by said auxiliary web to lock said sections together.

4. In a rail-joint, the combination with the 25  
confronting ends of two sections of rails, of an auxiliary web carried by one of said sections, a reinforcement carried by the other of said sections and fitting upon said web, and  
30 means mounted in said web to lock said reinforcement upon said web.

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

EPHRAIM M. PORTER.

JOHN W. DAUBENSPECK.

Witnesses:

JOHN SHAW,

GEORGE S. PORTER.