

G. E. MARTIN.
RAIL JOINT AND FASTENER.
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985,688.

Patented Feb. 28, 1911.

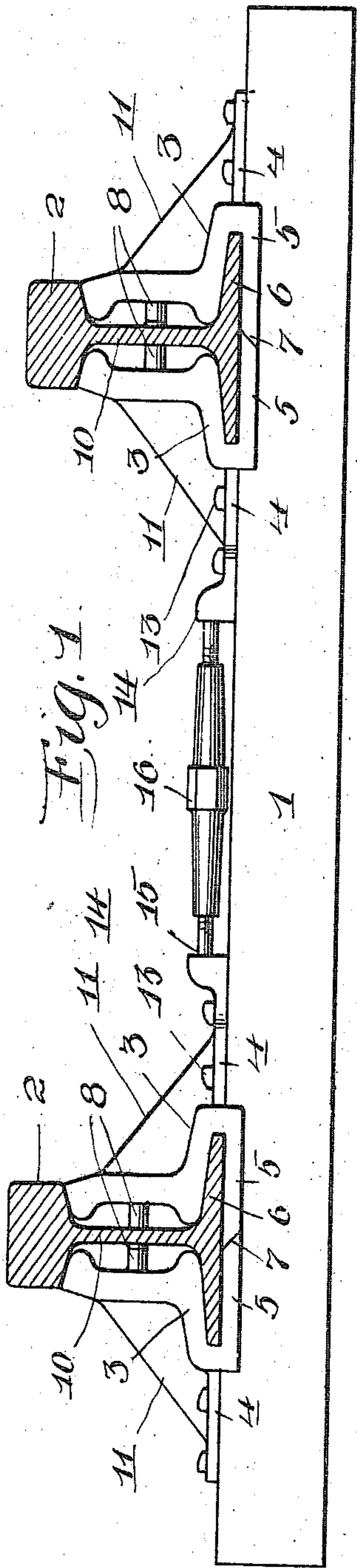


Fig. 1.

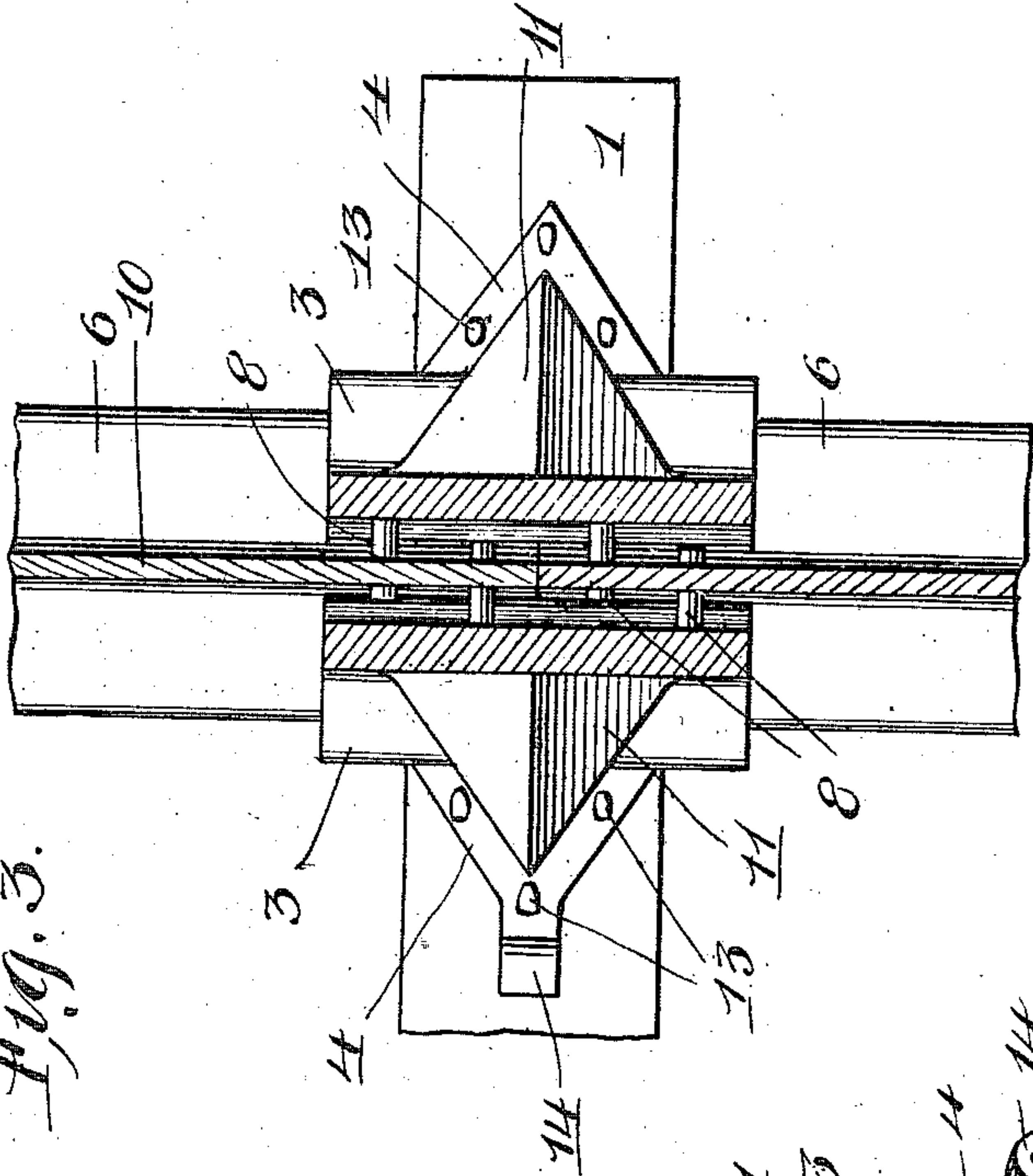


Fig. 3.

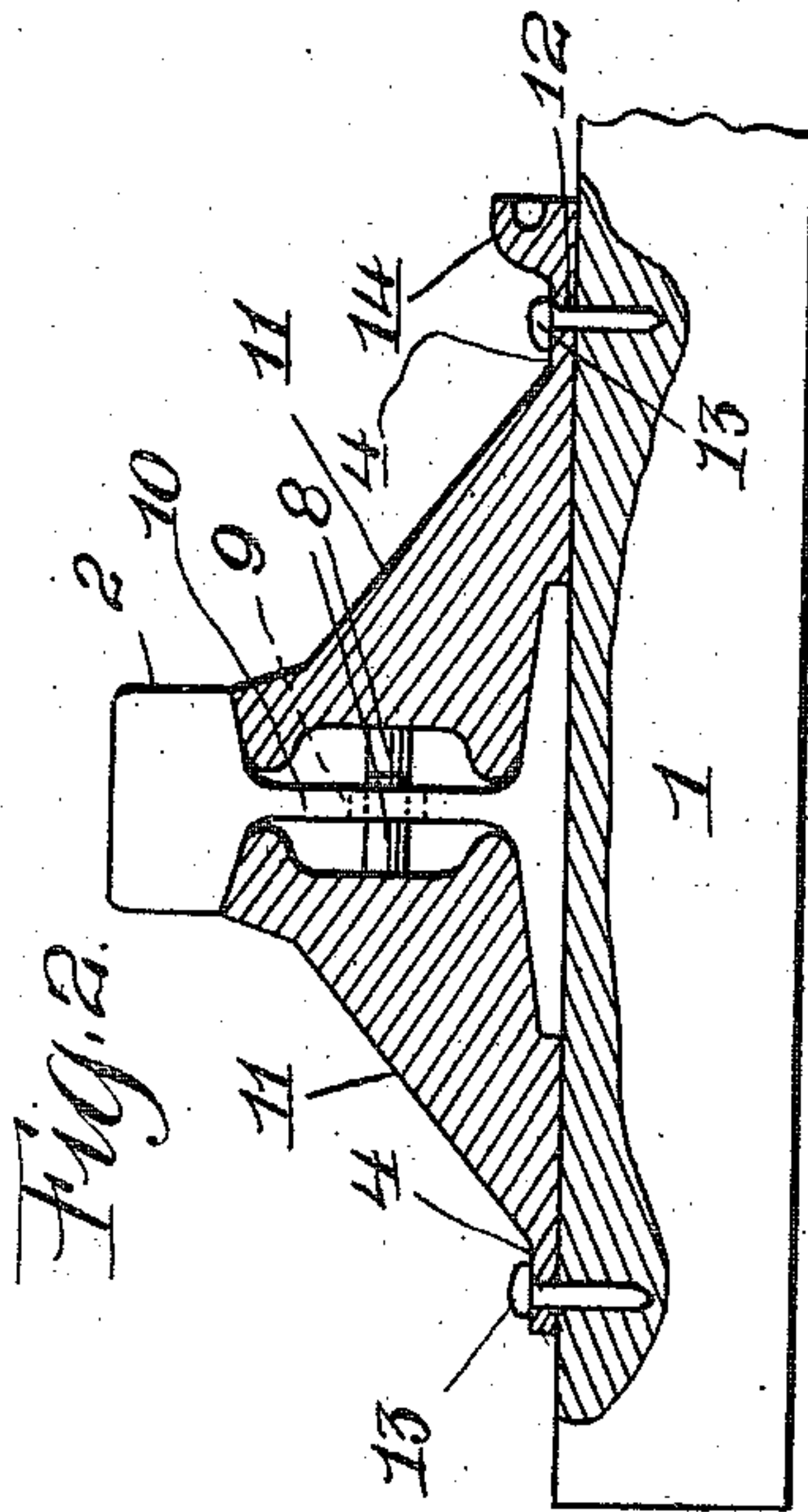


Fig. 2.

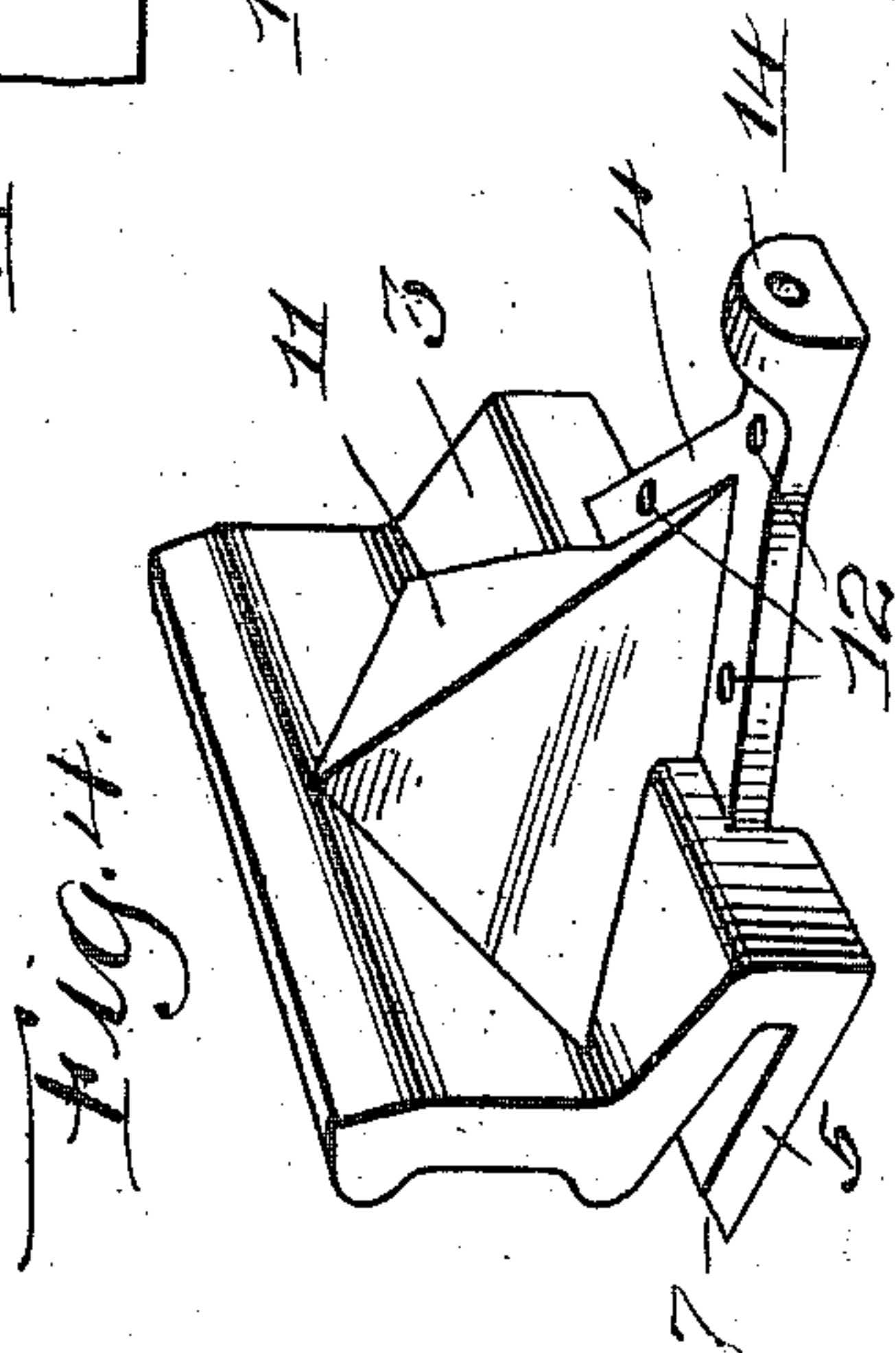


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE E. MARTIN, OF SMOCK, PENNSYLVANIA.

RAIL JOINT AND FASTENER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE E. MARTIN, a citizen of the United States of America, residing at Smock, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Rail Joints and Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints and fasteners, and the objects of my invention are to provide a rail joint that will prevent lateral and vertical displacement of the confronting ends of two rails, and to furnish effective means for preventing longitudinal displacement of the rails relative to a tie.

Other objects of my invention are to provide a rail joint that can be installed without the use of skilled labor, and to furnish novel means whereby after a portion of the joint is positioned, the remaining portions can be adjusted and fixed to positively hold the rails in place.

Further objects of the invention are to furnish a rail joint with novel means for affording practically a continuous tread for rolling stock, and to accomplish the above results by a joint that is simple in construction, durable, free from injury by ordinary use and highly efficient for the purposes for which it is intended.

With these and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of a tie provided with the rail joint, Fig. 2 is a longitudinal sectional view of a portion of the joint, Fig. 3 is a horizontal sectional view of the same, and Fig. 4 is a perspective view of one of the inner rail fasteners.

The reference numeral 1 denotes a tie or sleeper, preferably made of wood and adapted to support rails 2 constituting a track, these rails being located adjacent to the ends of the tie and providing a track of a desired gage. To secure the rails 2 upon the tie 1, outer and inner rail fasteners are employed, each outer rail fastener comprising a splice bar 3 having the lower edge thereof

provided with a lateral outwardly extending V-shaped extension 4 and with inwardly extending flanges 5, these flanges extending along the sides of the tie 1 under the base flange 6 of the rail, the flanges 5 having the inner edges thereof beveled, as at 7. The inner sides of the splice bars 3 are provided with stud-bolts or pins 8 adapted to extend through the ordinary bolt openings 9 in the webs 10 of adjoining rails. The pins or bolts 8 are arranged to engage the webs of both of the adjoining rails, and the splice bar is reinforced by an inverted or pyramidal-shaped enlargement 11, said enlargement having the apex thereof in proximity to the upper edge of the splice bar and the base thereof approximately the same length as the splice bar and the outer edge thereof protruding on to the extension 4. The extension 4 is provided with spike openings 12 whereby after the outer fastener has been positioned upon the tie, spikes 13 or other fastening means can be employed for securing the extension to the tie.

The inner rail fasteners are somewhat similar to the outer rail fasteners, the following differences being noted. The pins 8 of the inner rail fastener are staggered with relation to the pins 8 of the outer rail fastener, whereby both of said rail fasteners will cooperate in preventing longitudinal displacement of the rails. The inwardly projecting flanges 5 of the inner rail fasteners have the edges thereof beveled the reverse of the outer rail fasteners, whereby the beveled edges of the flanges 5 will snugly meet, as best shown in Fig. 1. Further, the extensions 4 of the inner rail fasteners are provided with sockets 14 to receive the outer ends 15 of a turn-buckle 16, the turn-buckle being of a conventional form that can be used when laying the track or installed as a permanent fixture in connection with each rail joint.

The manner of assembling the parts of the rail fastener is as follows:—After the gage of the track has been determined and the ties properly positioned, the outer rail fasteners are placed in position and spiked to the tie and the rails 2 placed in position against said outer fasteners. In some instances, however the rails can be positioned and then the outer fasteners placed in position. After the outer rail fasteners have been secured to the tie and the rails placed

in position, the inner fasteners are placed against the inner sides of the rails, the turn-buckle 16 placed in position and adjusted until the inner fasteners are forced into engagement with the rails to firmly bind the rails against the outer fasteners that have previously been secured to the tie. With the turn-buckle still in position, the inner rail fasteners are spiked or otherwise secured to the tie, and then if it is desired the turn-buckle can be removed.

From the foregoing it will be observed that I have devised a rail joint that is positive in its action, easy to install, and while in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements thereof are susceptible to such variations as fall within the scope of the appended claims.

What I claim is:—

1. In a rail joint, the combination with a tie and the confronting ends of rails adapted to be supported by said tie, of outer rail fasteners adapted to brace the outer sides of said rails, inner rail fasteners adapted to brace the inner sides of said tie, each rail fastener comprising a splice bar having a lateral extension, a pyramidal shaped enlargement adapted to brace said bar and the extension thereof, pins carried by the inner side of the splice bar and adapted to extend through openings provided therefor in the webs of said rails, inwardly extending flanges carried by said bar and adapted to extend under the base flanges of said rails and confront the flanges of an adjoining fastener, said inner fasteners having the extensions thereof provided with sockets, a turn-buckle adapted to have the ends thereof engage in the sockets of said

inner fasteners, and means adapted to secure said rail fasteners to said tie.

2. In a rail joint, the combination with a tie, and rails adapted to be supported thereby, of outer rail fasteners adapted to brace the outer sides of said rails, inner rail fasteners adapted to brace the inner sides of said rails, each fastener comprising a splice bar, an extension carried thereby, an enlargement reinforcing said bar and said extension, inwardly projecting flanges carried by each bar and adapted to engage under said rails at the sides of said tie, and a turn-buckle interposed between said inner fasteners and adapted to clamp said inner fasteners against said rails and said rails against said outer fasteners.

3. In a rail joint, the combination with a tie, and rails adapted to be supported thereby, of outer rail fasteners adapted to brace the outer sides of said rails, inner rail fasteners adapted to brace the inner sides of said rails, each fastener comprising a splice bar, an extension carried thereby, an enlargement reinforcing said bar and said extension, inwardly projecting flanges carried by each bar and adapted to engage under said rails at the sides of said tie, a turn-buckle interposed between said inner fasteners and adapted to clamp said inner fasteners against said rails and said rails against said outer fasteners, and means including spikes adapted to extend through said extensions and hold said fasteners upon said tie.

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

GEORGE E. MARTIN.

Witnesses:

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C. C. GARLETTS.