S. GINS & E. FELDMAN.

RAIL JOINT.

APPLICATION FILED JULY 1, 1908.

920,047.

Patented Apr. 27, 1909.

Fig. 2.

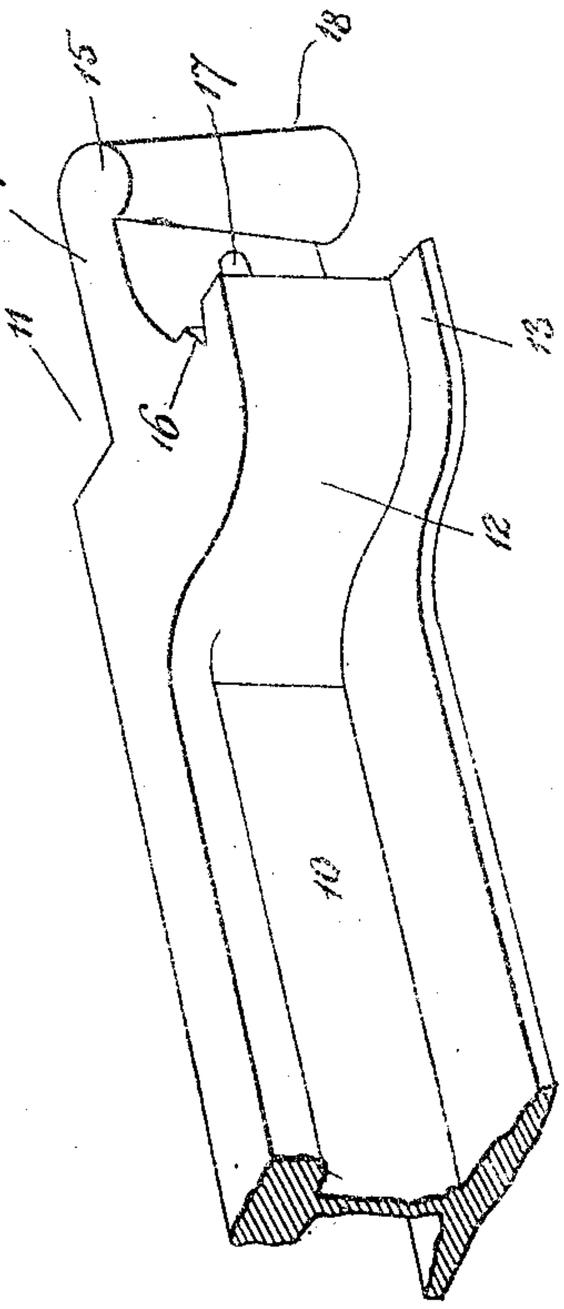


Fig. 3.

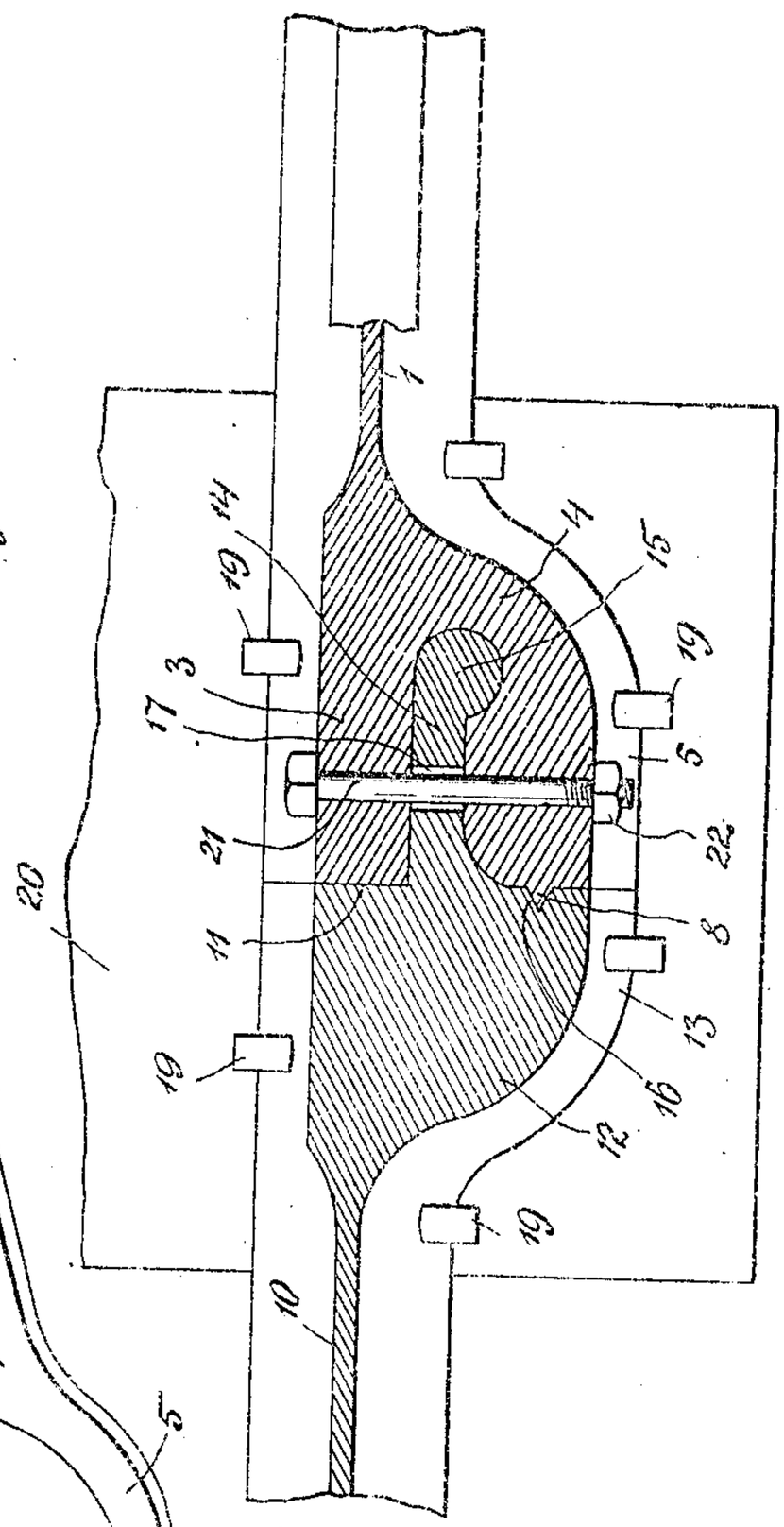
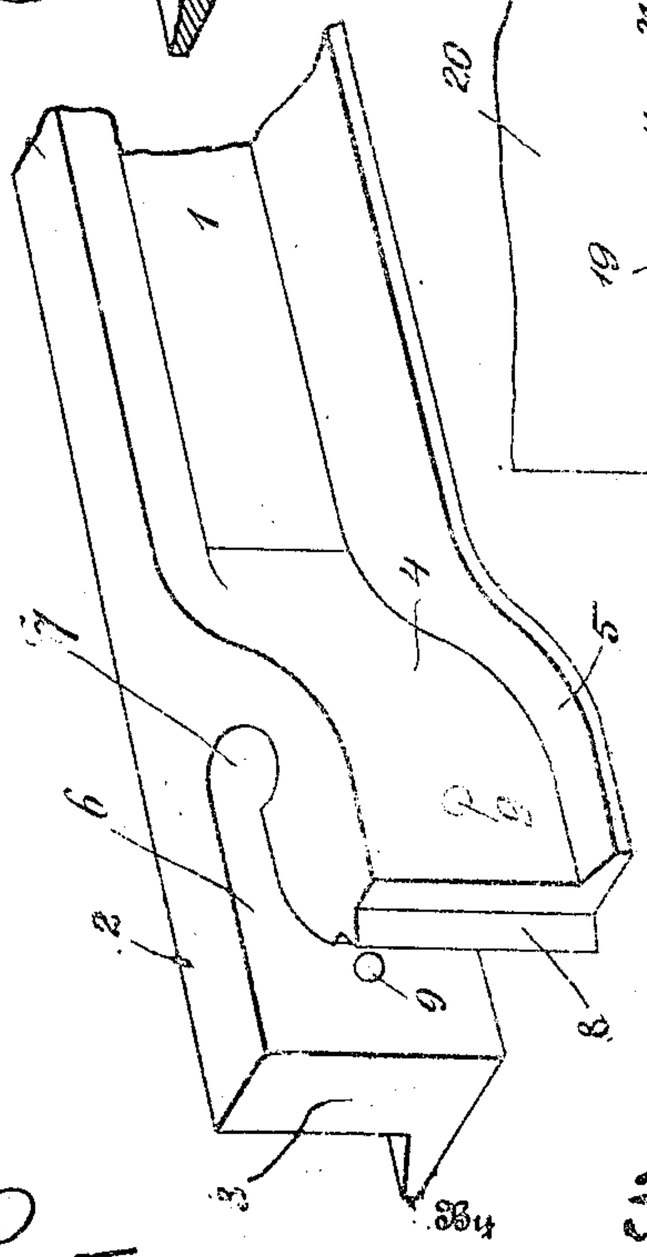


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL GINS AND EMANUEL FELDMAN, OF MONESSEN, PENNSYLVANIA.

RAIL-JOINT.

No. 920,047. Specification of Letters Patent. Patented April 27, 1909.

Application filed July 1, 1908. Serial No. 441,378.

To all whom it may concern:

Be it known that we, SAMUEL GINS and EMANUEL FELDMAN, (1) a subject of the King of Hungary, (2) citizen of the United States of America, residing at Monessen, in the county of Westmoreland 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 objects of our invention are, first, to provide a strong and durable rail joint wherein the use of splice bars is dispensed with as a fastening medium; second, to provide a connection for rails having positive and reliable means for preventing lateral and longitudinal displacement of connected rails; third, to obviate the necessity of employing a plurality of bolts and nuts for securing two rails together; fourth, to provide a rail joint having a continuous tread, thereby dispensing with the jarring and jolting of rolling stock passing over the same, and fifth, to provide a strong and durable rail connection that can be easily and quickly installed by unskilled labor.

With the above and other objects in view, our rail joint will be presently described in detail, and then specifically pointed out in the appended claims.

Referring to the drawings: Figure 1 is a perspective view of the end of a rail constructed in accordance with our invention. Fig. 2 is a similar view of an adjoining rail, and Fig. 3 is a horizontal sectional view of our rail joint.

To put our invention into practice, we provide the end of a rail 1 with an enlargement comprising a head portion 2, a reinforced web portion 3, and a curved vertical extension 4 having a base flange 5. The head 2 and the reinforced web portion 3 form one side of the rail, while the curved vertical extension 4 forms the outer side of the rail. This curved vertical extension 4 in conjunction with the head and reinforced web 3 provides a vertical groove 6 having an enlarged inner end 7. The curved vertical extension 4 at the end thereof is provided with a vertical V-shaped rib 8, and this extension together with the reinforced web 3 is provided with alining transverse openings 9, the object of which will presently appear. The adjoining rail 10 has its head, web and base cut away, as at 11, to receive the head 2 and reinforced web 3 of the rail 1. The rail 10 is provided with an enlargement 12 having a base flange 13, said enlargement 12 and base flange 13 alining with the vertical curved extension 4 and base flange 5 of the rail 1. The enlargement 12 is formed with a tongue 14 having an enlarged end 15, said tongue and enlarged end fitting in the groove 6 and the enlarged end 7 of the rail 1. The enlargement 12 is provided with a vertical V-shaped groove 16 to receive the V-shaped rib 8 of the extension 4, while the tongue 14 is provided with a transverse opening 17 adapted to aline with the openings 9 of the rail 1. The enlarged end 7 of the groove 6 and the enlarged end 15 of the tongue 14 are vertically inclined, as at 18, conforming in cross section to the frustum of a cone, this construction necessitating the placing of the rail 1 downward in engagement with the rail 10, thus preventing the rail 10 from becoming vertically disposed, when the rail 1 is spiked, as at 19, to a tie 20.

The confronting ends of the rails 1 and 10 are secured together by a tie bolt 21, which extends through the openings 9 and 17, a nut 22 being employed to retain the bolt 21 within the openings 9 and 17.

It is apparent from the novel construction of our rail joint that we have devised novel means for strengthening and bracing the outer sides of two confronting rails and at the same time provide a positive and effective connection for said rails.

While in the drawings forming a part of this application there is illustrated a preferred embodiment of our invention, we would have it understood that the construction can be varied or changed without departing from the spirit of the invention.

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

1. In a rail joint, the combination of rails, one of said rails having a reinforced web, a vertical curved extension providing a vertical groove having an enlarged vertical tapering end, a vertical V-shaped rib carried by said extension, said extension and said reinforced web having alining transverse openings formed therein, the other of said rails having the head, web and base portion thereof cut away, to receive the reinforced web of the first mentioned rail, said last mentioned rail having an enlargement pro-

vided with a vertical V-shaped groove to receive the rib of the first mentioned rail, a tongue carried by said last mentioned rail and having an enlarged vertical tapering end adapted to fit in the groove of the first mentioned rail, said tongue having a transverse opening formed therein adapted to aline with the openings of said reinforced web and said curved extension, a bolt extending through said openings, and a nut mounted upon said bolt for retaining said bolt within said openings.

2. In a rail joint, the combination of rails, one of said rails having a reinforced web, a vertical curved extension providing a vertical groove having an enlarged vertical tapering end, a vertical V-shaped rib carried by said extension, said extension and said reinforced web having alining transverse openings formed therein, the other of said rails having the head, web and base portion thereof cut away, to receive the reinforced web of the first mentioned rail, said last mentioned rail having an enlargement provided with a vertical V-shaped groove to receive the rib of the first mentioned rail, a tongue carried by said last mentioned rail and having an enlarged vertical tapering end adapted to fit in the groove of the first mentioned rail, said tongue having a transverse opening formed therein adapted to aline with the openings of said reinforced web and said curved extension, and means extending through said openings for securing the confronting ends of said rails together.

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

SAMUEL GINS.
EMANUEL FELDMAN.

Witnesses:
EDMOND JEFFRIES,
ELIZABETH C. JEFFRIES.