

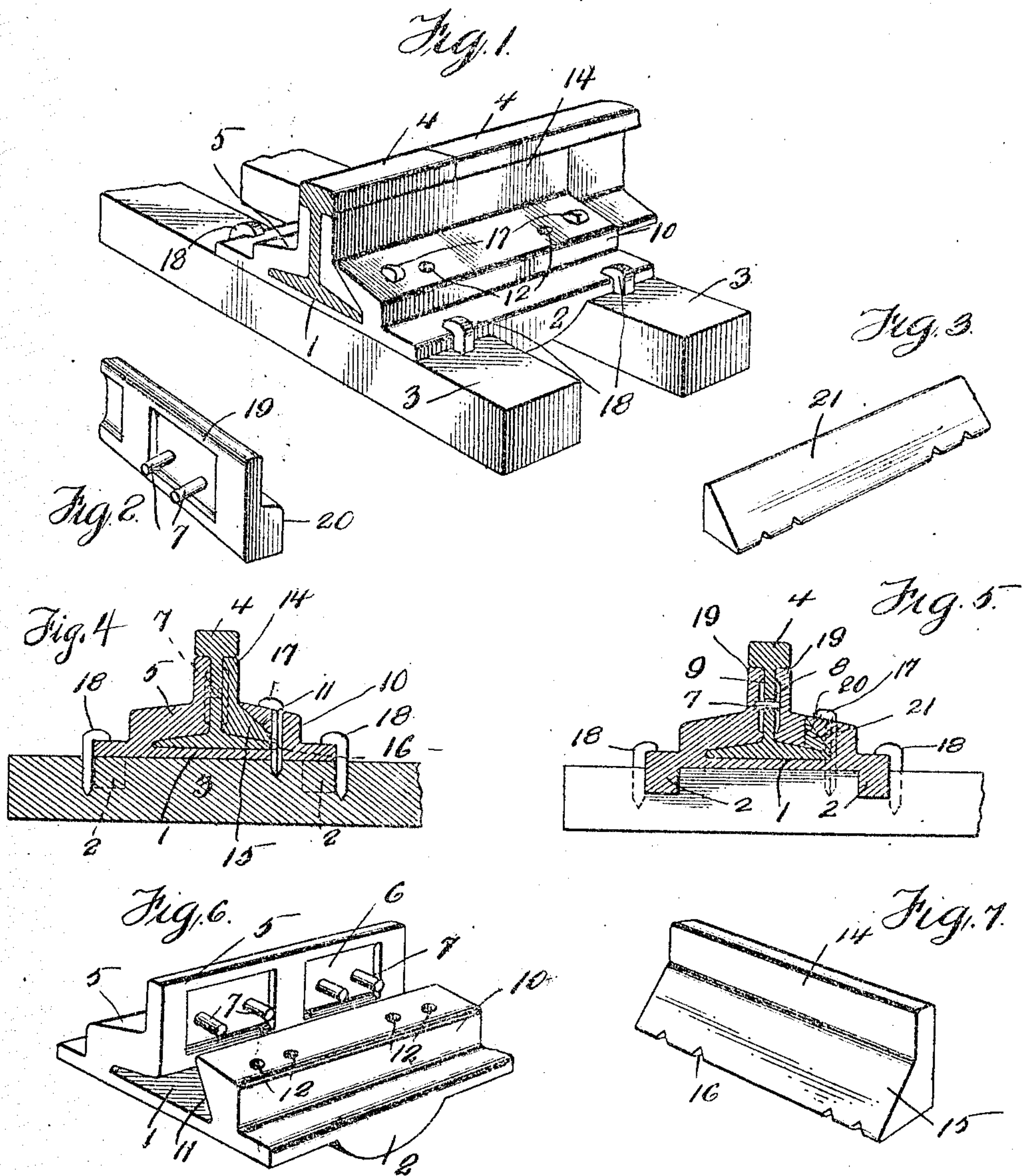
No. 860,441.

PATENTED JULY 16, 1907.

J. A. BRIDGE.

RAIL JOINT.

APPLICATION FILED MAR. 28, 1907.



WITNESSES:

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JOHN A. BRIDGE, OF LARIMER, PENNSYLVANIA.

RAIL-JOINT.

No. 860,441.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed March 28, 1907. Serial No. 365,145.

To all whom it may concern:

Be it known that I, JOHN A. BRIDGE, a citizen of the United States of America, residing at Larimer, 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 certain new and useful improvements in rail joints, and the invention has for its primary object to provide a novel rail chair for supporting rails and novel means in connection with said chair for retaining rails thereon.

Another object of this invention is to provide a rail joint which will be strong and durable, comparatively inexpensive to manufacture, and highly efficient for the purposes for which it is intended.

A further object of this invention is to provide a novel chair and rail fastener for preventing rails from spreading or becoming displaced in any direction whatever with relation to their normal position.

With the above 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 drawing 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 my improved rail joint, Fig. 2 is a fragmentary perspective view of a fish bar, constituting a modified form of my invention, Fig. 3 is a perspective view of the triangular bar also forming part of the modification, Fig. 4 is a cross sectional view of the preferred form of my improved rail joint, Fig. 5 is a cross sectional view of the same illustrating a modified form of construction, Fig. 6 is a perspective view of the preferred form of rail chair, and Fig. 7 is a perspective view of the preferred form of fish bar.

To put my invention into practice, I construct my improved rail joint of strong and durable metal, the main part of said joint consisting of a chair 1 having depending side enlargements 2 adapted to engage between the ties 3 upon which said chair rests, said enlargement properly spacing the ties 3 and preventing the chair from shifting upon the ties when said ties have been properly tamped in a well ballasted roadbed. The chair 1 is adapted to support the confronting ends

of rails 4 said rails being braced upon their outer side by a fish bar 5 formed integral with the chair 1. The fish bar 5 has its inner side recessed, as at 6, and provided with outwardly projecting pins 7, said pins engaging in the ordinary bolt openings 8 formed in the web portions 9 of the rails 4.

The chair 1 opposite the integral fish bar 5 is provided with a rib 10 having an inclined face 11 and vertically disposed openings 12 adjacent to each end of the rib. After the rails 4 have been positioned upon the chair 1, a fish bar 14 is mounted between the rails 4 and the rib 10, said bar being provided with an inclined face 15 to engage the inclined face 11 of the rib 10. The edge of the bar 14 is notched, as at 16, to clear the vertically disposed openings 12 of the rib 10, said openings being provided for spikes 17 employed to secure the bar 14 upon the chair. The spikes 17 also assist in holding the chair upon the ties 3 and in connection with said spikes I employ spikes 18 at the edges of the chair.

In Figs. 2, 3 and 5 of the drawings, I have illustrated a slight modification of my invention wherein a detachable fish bar 19 is employed, carrying the pins 7. The detachable fish bar 19 is provided with a vertical face 20 instead of the inclined face 15 of the bar 14, and adapted to engage the vertical face 20 is a triangular shaped bar 21, said bar being notched similar to the bar 14 to clear the openings 12.

It will be apparent from the illustration of my invention that I have provided positive and reliable means for holding the confronting ends of two rails upon ties, my improved chair firmly supporting the ends of the rails and providing practically a continuous tread for rolling stock adapted to travel over the joint. The chair and its appurtenant parts can be easily and quickly positioned, requiring no skill or labor whatever, and serving to brace and strengthen the heads of two connecting rails.

It is obvious that such changes in the size, proportion and minor details of my invention as are permissible by the appended claims, may be resorted to without departing from the spirit and scope of the invention.

What I claim and desire to secure by Letters Patent, is:--

1. In a rail joint, the combination with ties, of a chair supported upon said ties, depending enlargements carried by said chair between said ties, a fish bar carried by said chair, outwardly extending pins carried by said bar, a rib carried by said chair and having an inclined face, said rib having spike openings formed therein, a detachable fish bar mounted in said chair, and engaging said rib, said fish bar being notched to clear said spike openings, and means

engaging the edges of said chair for holding the same upon said ties.

2. In a rail joint, the combination with ties and rails, of a chair adapted to support said rails upon said ties, depending enlargements carried by said chair between said ties, a fish bar carried by said chair, pins carried by said bar and engaging said rails, a rib carried by said chair and having spike openings formed therein, a notched fish bar mounted in said chair, and engaging said rib and said

rails, and means engaging said ties for holding said chair thereon. 10

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

JOHN A. BRIDGE.

Witnesses:

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