

G. W. AMOS.
RAILROAD JOINT.
APPLICATION FILED MAY 24, 1909.

941,604.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

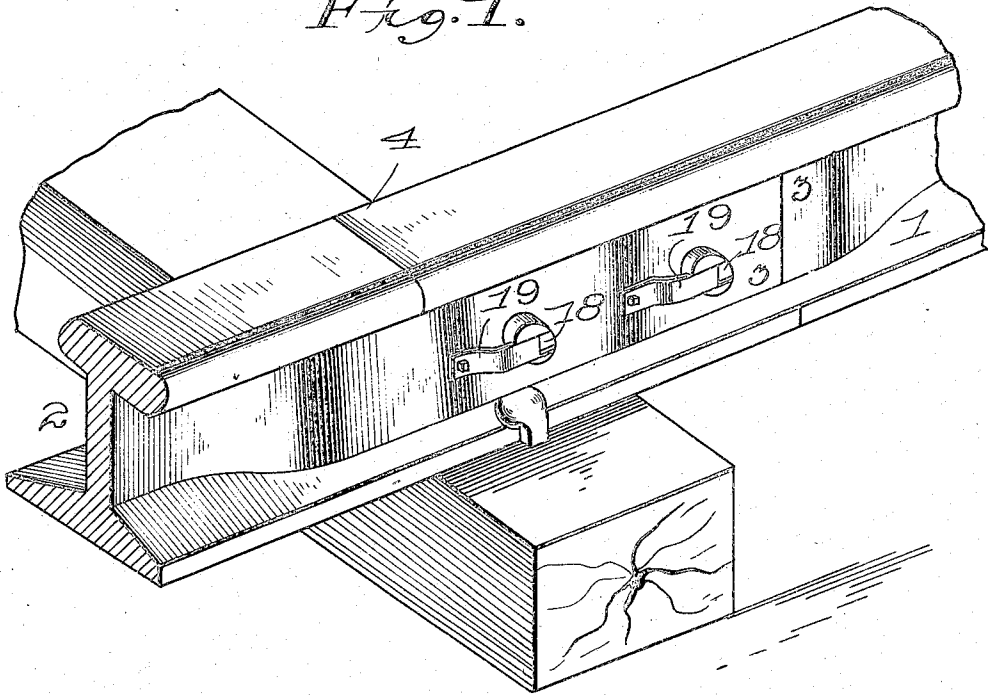


Fig. 2.

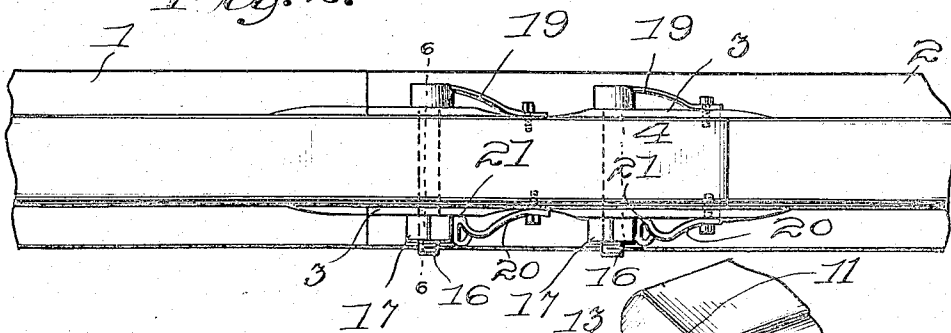
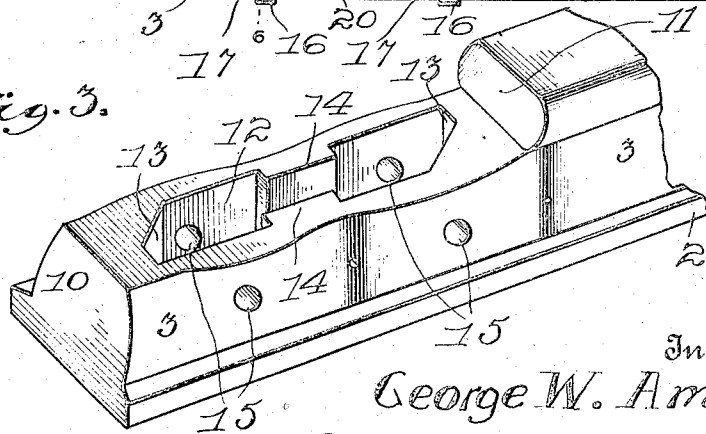


Fig. 3.



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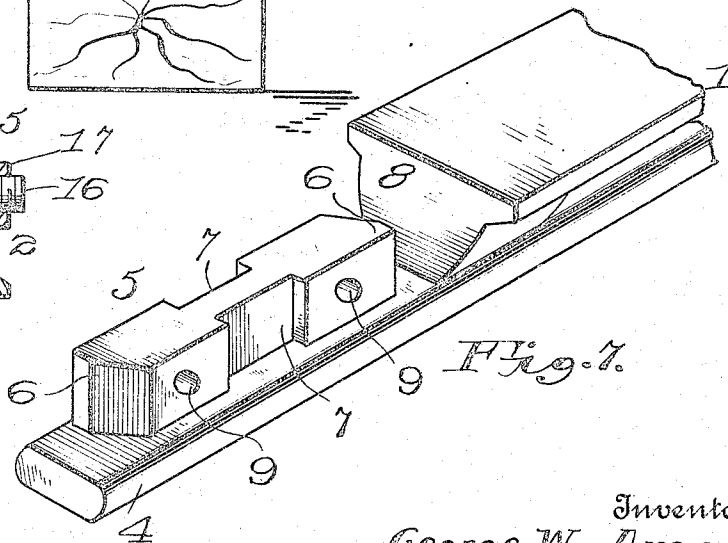
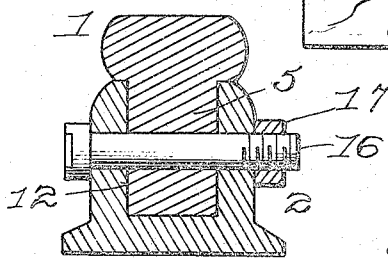
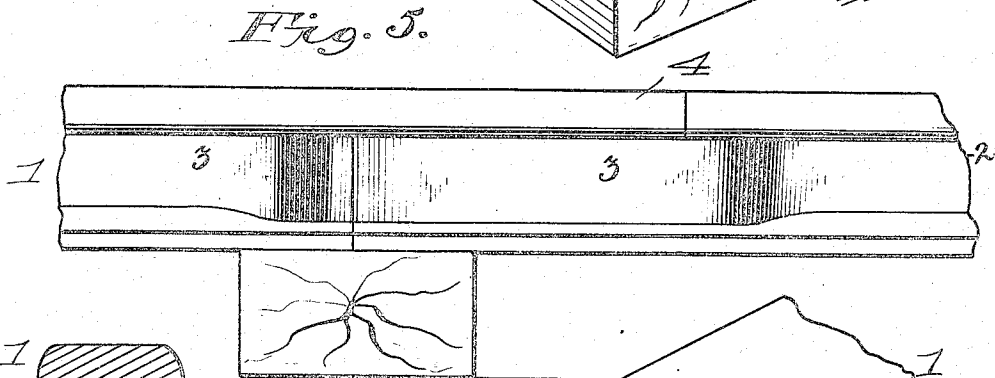
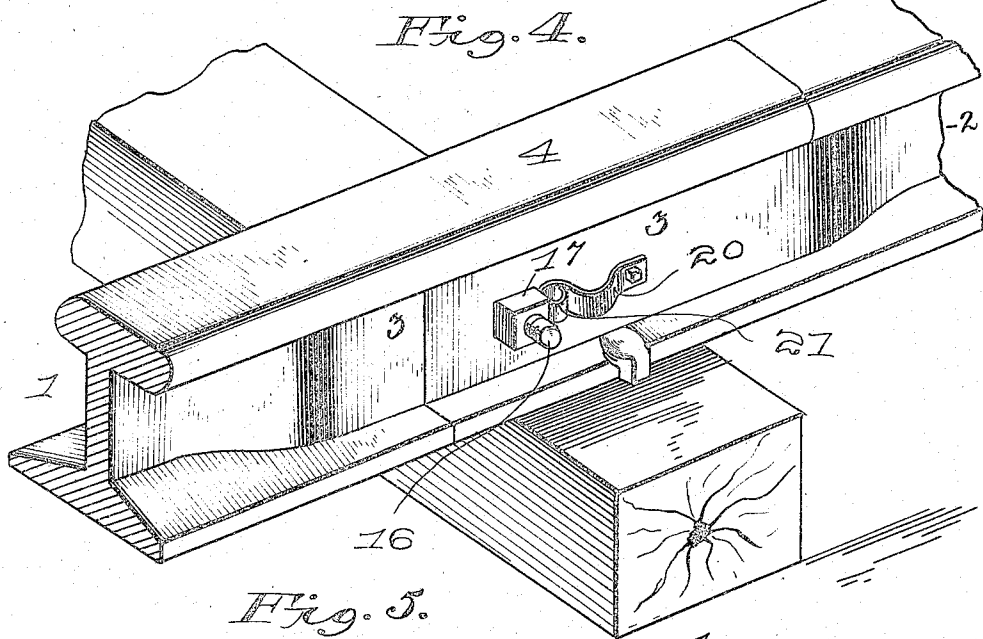
By E. O. Brown, Attorney

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2 SHEETS SHEET 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. AMOS, OF ST. CHARLES, MISSOURI, ASSIGNOR OF ONE-HALF TO WILLIAM BLUMHOF, OF WENTZVILLE, MISSOURI.

RAILROAD-JOINT.

941,604.

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Application filed May 24, 1909. Serial No. 497,867.

To all whom it may concern:

Be it known that I, GEORGE W. AMOS, a citizen of the United States, residing at St. Charles, in the county of St. Charles and State of Missouri, have invented certain new and useful Improvements in Railroad-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints, and has principally in view a novel means for holding the meeting ends of rails in interlocking nested engagement so as to prevent any relative movements of the rails.

In carrying out the object of the invention generally stated above it is contemplated forming the end of one of the rails with a recess and the end of the other rail with a pendent lug adapted for nested, interlocking, and wedging engagement within said recess, the arrangement of the rails being such that the tread of one rail will overhang and have a firm engagement with the web of the other rail.

It will be understood, of course, that in the practical application of the invention, changes in details and structural arrangements may be resorted to, but a simple and efficient embodiment of the same is shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of the improved rail joint. Fig. 2 is a top plan view. Fig. 3 is a detail perspective view of one of the joining rails. Fig. 4 is a view similar to Fig. 1, but showing the use of only one reinforcing bolt. Fig. 5 is a side elevation. Fig. 6 is a transverse sectional view taken on the line 6—6, Fig. 2. Fig. 7 is a bottom perspective view of the overlapping end of one of the joining rails.

Referring to said drawings 1 and 2 designate the two rails that are to be joined, the ends of each of which are thickened at their webs as indicated at 3. The rail 1 has its web and flange cut-away adjacent to its end and its tread 4 projected so as to form an overhanging portion. The under side of said overhanging tread 4 carries a pendent lug 5 the ends 6 of which are beveled and the intermediate sides of which are oppositely recessed as indicated at 7. Said lug is spaced from the end of the tread and also from the shoulder 8 formed by cutting away the thickened web, as is indicated in Fig. 7.

Said shoulder 8 preferably has its front face

inclined. The end portions of the lug 5 may be provided with transverse bolt holes 9. The other rail 2 has its end 10 in the form of an inclined shoulder complementary to the shoulder 8 of the rail 1 with which it has binding engagement when the rails are joined, and has its tread 11 cut-away for the same or substantially the same length as the length of the overhanging tread of the rail 1, and the thickened web thereof is provided with a longitudinal recess 12 the ends 13 of which are beveled complementary to the beveled ends of the lug 5 of the rail 1. The sides of the recess are provided with tongues or bars 14 which are oppositely disposed and are adapted to engage with the recesses 7 of the lug 5 when the rails are joined. Bolt openings 15 are formed through the walls of the recess 12.

In assembling the ends of the rails, the rail 1 with its projecting tread is placed over the recessed end of the rail 2, and the lug forced into the recess with its beveled ends closely fitting the correspondingly formed ends of the recess and its side recesses closely fitting over the side bars of the recess 12, the ends of the two members have their inclined faces or shoulders in binding engagement, and also the end of the overlapping tread of rail 1 is forced into binding engagement with the cut-away end of the tread of the rail 2. Locking bolts 16 are then passed through the aligned bolt openings of the recess 12 and lug 5 and locked in position by means of the nuts 17. The heads of the bolts 16 are preferably grooved as indicated at 18 for engagement with a spring locking plate 19 carried by the tread of the rail 2, and similarly the nuts 17 may be locked against turning movement by means of the locking plates 20 the ends of which are bent upon themselves to form an abutment 21 which is held in contact with the side of said nuts. Said plates 20 which may also be of spring metal are fastened to the rail 2.

Obviously, the joint may be provided with but one fastening bolt as shown in Fig. 4, instead of two, as is shown in Figs. 1 and 2, or the bolts may be omitted as suggested in Fig. 5, the bolts being employed as a safeguard. When no bolts are employed, it is desirable to have the supporting tie directly beneath the joint of the lower or flange ends of the rails, as is shown in Fig. 5, and

when the bolts are employed it is desirable to have the tie directly beneath one of the bolts, as is shown in Figs. 1 and 4.

It will be seen from the foregoing that the present invention provides for a quick joining of the rail ends and also permits the same to be disconnected quickly. And when in a joined condition, it will be seen that through the described interlocking, nested, and wedging connection of the parts, there will be no danger of said rails being separated by the travel over the same.

What I claim as my invention is:—

1. In a rail joint, the combination of two rail ends, one being provided with a longitudinal recess having beveled ends and vertically arranged side bars, the other being provided with an overhanging portion carrying a pendent lug provided with beveled ends and side recesses, whereby said lug may have an interlocking nested engagement with said recess.

2. In a rail joint, the combination of two meeting rails, the end of one rail being provided with a longitudinal recess, and the end of the other rail adapted to overhang said recess, a lug carried by the overhanging

portion of the rail and adapted for interlocking nested engagement with said recess, fastening bolts passing through the lug and recess, locking nuts for said bolts, and plates carried by opposite sides of one of the rails for engagement with said nuts and bolts to prevent the same rotating in one direction.

3. In a rail joint, the combination with the ends of two rails adapted for interlocking nested engagement, of locking bolts for holding said ends in rigid relation, said bolts being provided with grooved heads, spring plates carried by one of the rails for engagement with the grooves of the bolts to prevent rotation of the same to an unlocked position, nuts for said bolts, and spring plates carried by one of said rails and provided with an abutment head for contact with said nuts to prevent turning of the same to an unlocked position.

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

GEORGE W. AMOS.

Witnesses:

ALEX. KLUTH,
WILLIAM H. BRINKER.