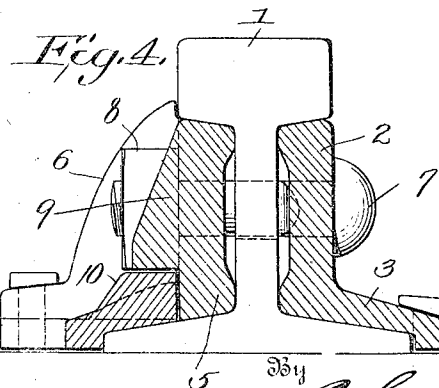
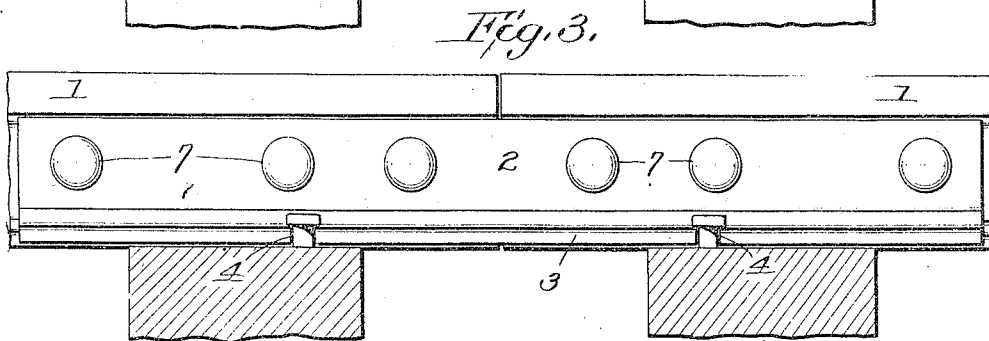
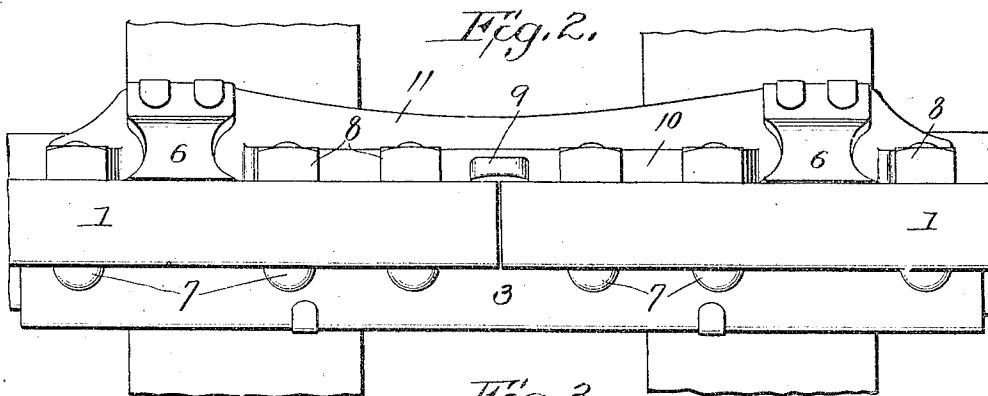
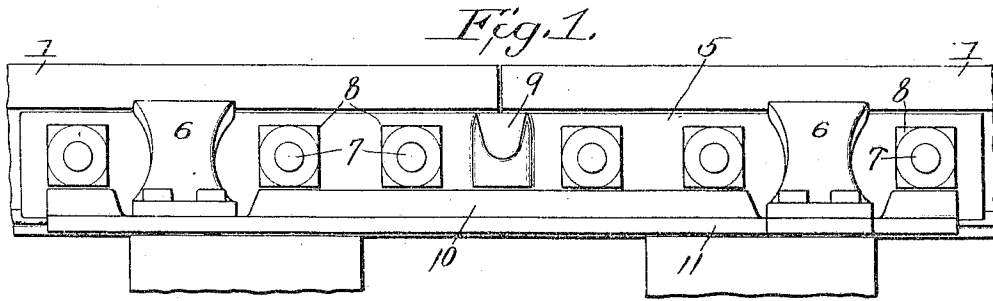


L. HARVEY.
 COMBINED ANGLE BAR, NUT LOCK, AND RAIL JOINT AND BRACE.
 APPLICATION FILED APR. 10, 1911.

1,013,488.

Patented Jan. 2, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

LINDSEY HARVEY, OF PRENTISS, MISSISSIPPI.

COMBINED ANGLE-BAR, NUT-LOCK, AND RAIL JOINT AND BRACE.

1,013,488.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed April 10, 1911. Serial No. 620,212.

To all whom it may concern:

Be it known that I, LINDSEY HARVEY, a citizen of the United States, and residing at Prentiss, in the county of Jefferson Davis and State of Mississippi, have invented a new and useful Improvement in a Combined Angle-Bar, Nut-Lock, and Rail Joint and Brace, of which the following is a specification.

This invention relates to an improvement in railroad joints, braces and nut locks, the various parts being combined thereby forming a chair to receive the meeting ends of rails, which chair forms a brace and tie plate and also forms a lock for the nuts employed in holding the said plates to the rails.

The invention consists in the novel features of construction hereinafter described, pointed out in the claims and shown in the accompanying drawings, in which:

Figure 1 is a side elevation, showing those parts applied to the outer side of the rails. Fig. 2 is a plan view. Fig. 3 is a side view showing the inner sides of the rails with my device applied thereto. Fig. 4 is a transverse section upon the line 4-4 of Fig. 2.

In the above mentioned drawings 1 represents the end portion of railroad rails of the usual construction and upon the inner sides of said rails and overlapping the joint between them I place a metal tie plate 2 which fits against the rail web and which is provided with a flange 3 that extends over the rail base and which is notched at 4 to receive the usual spikes. Upon the outer faces of the rails is placed a flat tie plate 5, which is provided adjacent its ends with outwardly extending integral braces 6, said braces clearing the rail base. The plate 5 is not provided with a flange as is the plate 2, but midway its ends and directly opposite the joint between the two rails a boss 9 is formed upon the plate 5 which thickens and strengthens it at this point. Both the plates 2 and 5 are provided with the usual bolt openings and bolts 7 pass through these plates and through the rails, and are held in place by nuts 8. In order to lock these nuts in place I provide a locking bar 10, which bears against the plate 5 and rests upon the base of the rail. This plate fits beneath the nuts and snugly between the rail base and the said nuts, thus preventing their turning while said locking bar is in

place. This bar is provided with a slightly curved flange 11 of less thickness than the bar, and of greater width. The end portions of this flange rest upon the ties and beneath the lower ends of the braces 6, both the braces and the end portions of the flange 11 being provided with suitable perforations to receive spikes which secure both the braces 6 and the flange 11 to the ties. It will be noted that this locking bar 10, which is arranged only upon the outer sides of the rails takes the place of the flange 3 carried by the plate 2 and may therefore be considered as a detachable flange. It will of course be obvious that if formed integral with the plate 5 it could not serve both as a flange and as a lock for the nuts 8. By withdrawing the spikes which fasten the braces 6 to the ties the bar 10 can be slipped out of place, and the nuts can then be taken off thus permitting the removal of the plate 5, or withdrawal of the bolts 7.

The entire device forms a chair to receive the meeting ends of the rails which is so constructed that a very secure and rigid joint is made and one that is readily placed in position or removed, but which is at the same time locked in position so that there is practically no danger of its accidentally working loose by reason of jars and vibrations from the passage of trains.

What I claim is:

1. In a device of the kind described, a plate adapted to fit against the web of a rail, outwardly and downwardly extending braces carried by said plate, and a locking bar adapted to fit against said plate and upon the base of the rail and provided with extending flange portions adapted to rest beneath the lower ends of the braces.

2. A combined tie plate and nut lock, comprising a plate adapted to fit against a rail web and perforated to receive bolts, retaining bolts passing through said perforations, nuts upon said bolts, outwardly extending braces carried by the plate, and a locking bar fitting beneath and in engagement with said nuts and having its end portions secured under said braces.

3. The combination with the meeting end portions of railroad rails, of a flanged plate arranged upon the inner faces of the rails, a plate arranged upon the outer faces, said last mentioned plate having a boss midway its ends and having braces formed integral

therewith adjacent its ends, bolts passing through said plates, nuts working upon said bolts and bearing against the second mentioned plate, and a bar resting beneath
5 said nuts and upon the rail bases, said braces being provided with a curved flange extending beyond the brace proper, the end portions of said flange resting beneath the braces, the said bar forming a detachable
10 flange for the second mentioned plate and also a lock for said nuts.

4. In a device of the kind described, a combination with a perforated plate, inte-

gral laterally extending braces projecting from the outer side of said plate, said plate 15 having a boss formed thereon between said braces, and a bar adapted to bear against said plate, said bar having a flange of greater width than the body portion of the bar, the said bar resting beneath the boss and 20 the flange extending beneath said braces, as and for the purpose set forth.

LINDSEY HARVEY.

Witnesses:

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BRYANT HARVEY.