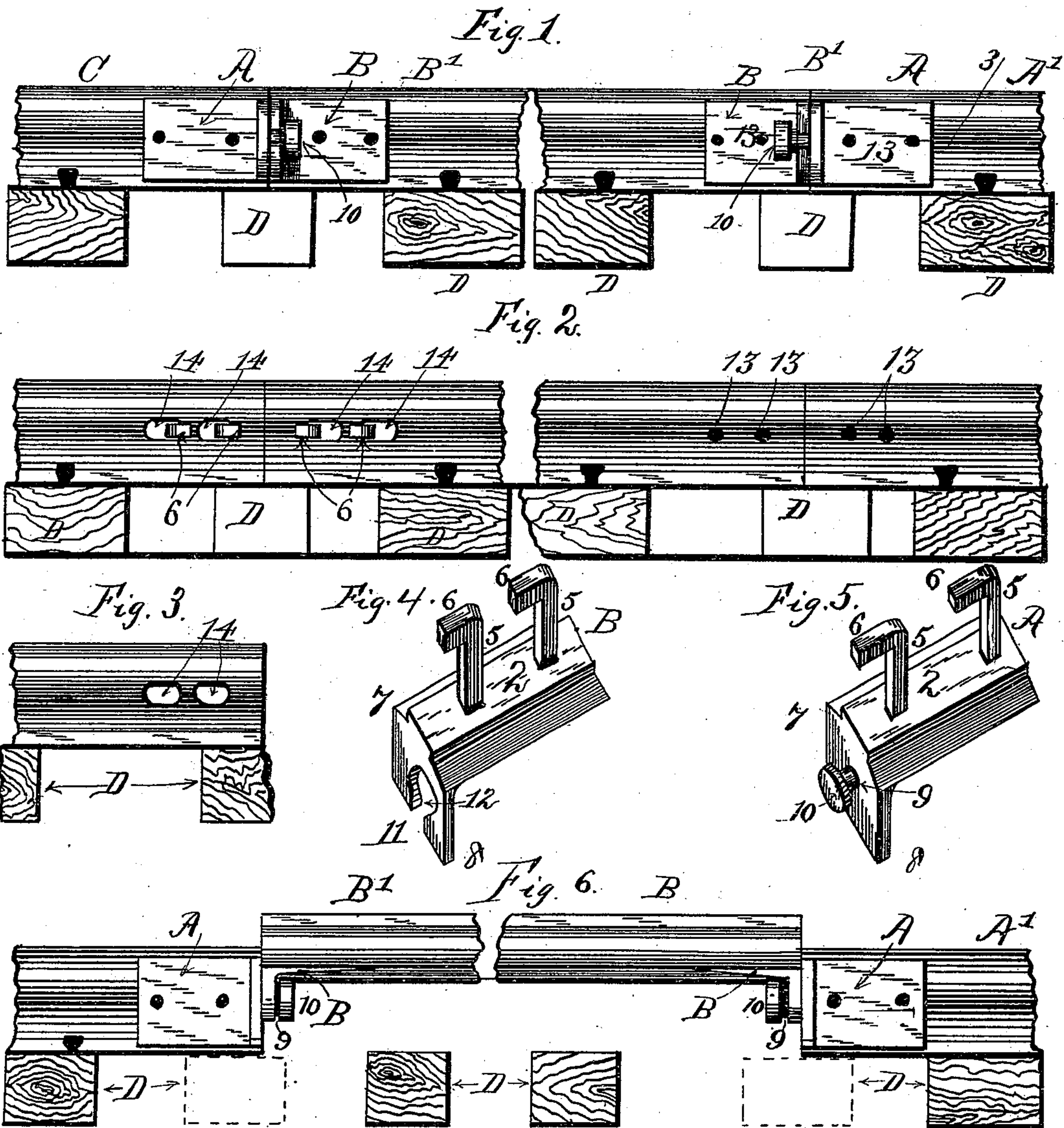


(No Model.)

A. A. BILLINGSLEA.
RAILWAY RAIL JOINT.

No. 355,500.

Patented Jan. 4, 1887.



Witnesses.
Jno. C. Ingoane.
Jas. I. Brerton.

Inventor.
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By his Atty.
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UNITED STATES PATENT OFFICE.

ASA A. BILLINGSLEA, OF CHERRY GROVE, ARKANSAS, ASSIGNOR OF ONE-HALF TO HARRY C. GRAVES AND WILLIAM V. BRATTON, BOTH OF SAME PLACE.

RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 355,500, dated January 4, 1887.

Application filed August 26, 1886. Serial No. 211,881. (No model.)

To all whom it may concern:

Be it known that I, ASA A. BILLINGSLEA, a citizen of the United States, residing at Cherry Grove, in the county of Grant and State of Arkansas, have invented certain new and useful Improvements in Railway-Rail Ties; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention is a new railway-rail tie; and it consists in the novel construction and arrangement of its parts, as hereinafter set forth and described in the specification and claims.

Figure 1 is a face view of the outside face of the railway-rail with my tie attached thereto. Fig. 2 is an inside view of the railway-rails, showing the ends of bolts and the ties that come through the rails. Figs. 3, 4, 5, and 6 are detailed views of the same.

My invention may be attached to the railway-rails now in use.

It consists in the novel construction of its parts, and is described as follows:

There is a plate secured to each end of the rail by means of bolts. I make a plate, A, the inner face, 2, of which fits in the depression 3 of the rail A'. From the inner face, 2, of this plate A extend two bolts, 5, which may or may not have their outer ends, 6, turned down at an angle of ninety degrees. The outer end, 7, of this plate A is turned out at an angle of ninety degrees, forming a flange, 8. From the outer face of this flange 8 extends a flat neck, 9, terminating in a circular head, 10.

To the outer face of the abutting rail B' is secured a plate, B. From the inner face, 2, of which extend arms 5, similar to the arms 5 on plate A, the outer ends, 6, of which may or may not be turned down at an angle of ninety degrees. The outer end, 7, of said plate B is turned out at an angle of ninety degrees, forming a flange, 8. In the outer edge of this flange 8 is cut a mouth, 11, which widens into a circle, 12, which circle is larger than the said

mouth 11. On the other end of the rail B' is secured to its outer face another plate, B, exactly similar to the plate B just described, and on the ends of the abutting rail C is secured on its outer face another plate, A, exactly similar to the plate A above described. These plates A and B are secured to the said rails A', B', and C by means of the bolts 5, extending from the inner face of said plates through the bolt-holes 13 in said rails, and having their heads riveted down; or, instead of the bolt-holes 13, the said rails may have slots 14 cut through them, in which case the ends 6 of said bolts 5 are turned down at an angle of ninety degrees, and in this shape are thrust through the said slots 14, and then drawn in the direction of the said rails; the ends 6, having been thus turned down, catch on the inside of the said rails and hold the said plates A and B firmly to their places. The flat necks 9 of the plates A are put on the flanges 8, so that their longest diameter will be up and down, or perpendicular.

The plates being firmly secured to the outer face of the rails, as above described, it will be seen that the plates A, having the necks 9, are secured to one rail, one on either end, and the plates B are secured to one rail, one on either end, and the rails are bolted down to the stringers or cross pieces D by bolts ordinarily used.

When we wish to take out a rail—for example, rail B'—we withdraw the bolts from the inner edge of the said rail B', and then we can turn the inside face of the rail up, which brings the mouth 11 of the plates B immediately over flat necks 9 of the plates A, and we can then lift the rail out of position, the flat necks 9 passing through the mouths 11. Thus it will be seen that this rail B' can be removed and replaced by a new one without disturbing the plates A on the rails A' and C. (See Fig 1.) When we wish to replace the rail, we slip the mouths 11 over the flat necks 9, and then turn the rail down to its place, and when so turned down the said necks 9 are grasped firmly and held in the opening or circle 12. If we wish to take out the rail A', we withdraw the bolts from the inner edge of said rail and

turn the inner face of the rail out and up. This brings the flat necks 9 round, so that they will slip out of the mouths 11, and the rail can be removed without disturbing the plate B or the other rails. The rail is replaced in the same manner as described for rail B'. Thus it will be seen that any rail on the entire track may be removed without disturbing the abutting rails or the plates on the abutting rails.

10 Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the rails A', B', and C, of plate A, having its inner face, 2, adapted to fit in the depression of said rails, and having bolts 5 extending from its inner face, the flange 8 standing perpendicular to the face of said plate, flat necks 9 extending from the outer face of said flange 8, and having the
20 circular head 10, and plates B, having bolts 5 extending from the inner face, 2, of said plate, flange standing perpendicular to the

face of said plate, and having in its outer edge mouths 11 widening into a circle, 12, all substantially as shown and described, and for the
25 purposes set forth.

2. In combination with the rails A' and plate A, plate B, having the flange 8, mouths 11 in its upper edge widening into the circle 12, and bolts 5 securing said plate to rail B', substantially as shown and described.

3. In combination with the rail B' and plates B, plates A, having flanges 8, flat necks 9, having circular heads 10, bolts 5 extending from the inner face, 2, of said plates, by which
35 means they are secured to said rails, all substantially as shown and described.

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

ASA A. BILLINGSLEA.

Witnesses:

WM. M. FIELDING,
JOHN D. WALLACE.