H. NABLEFELD.

RAILROAD RAIL JOINT.

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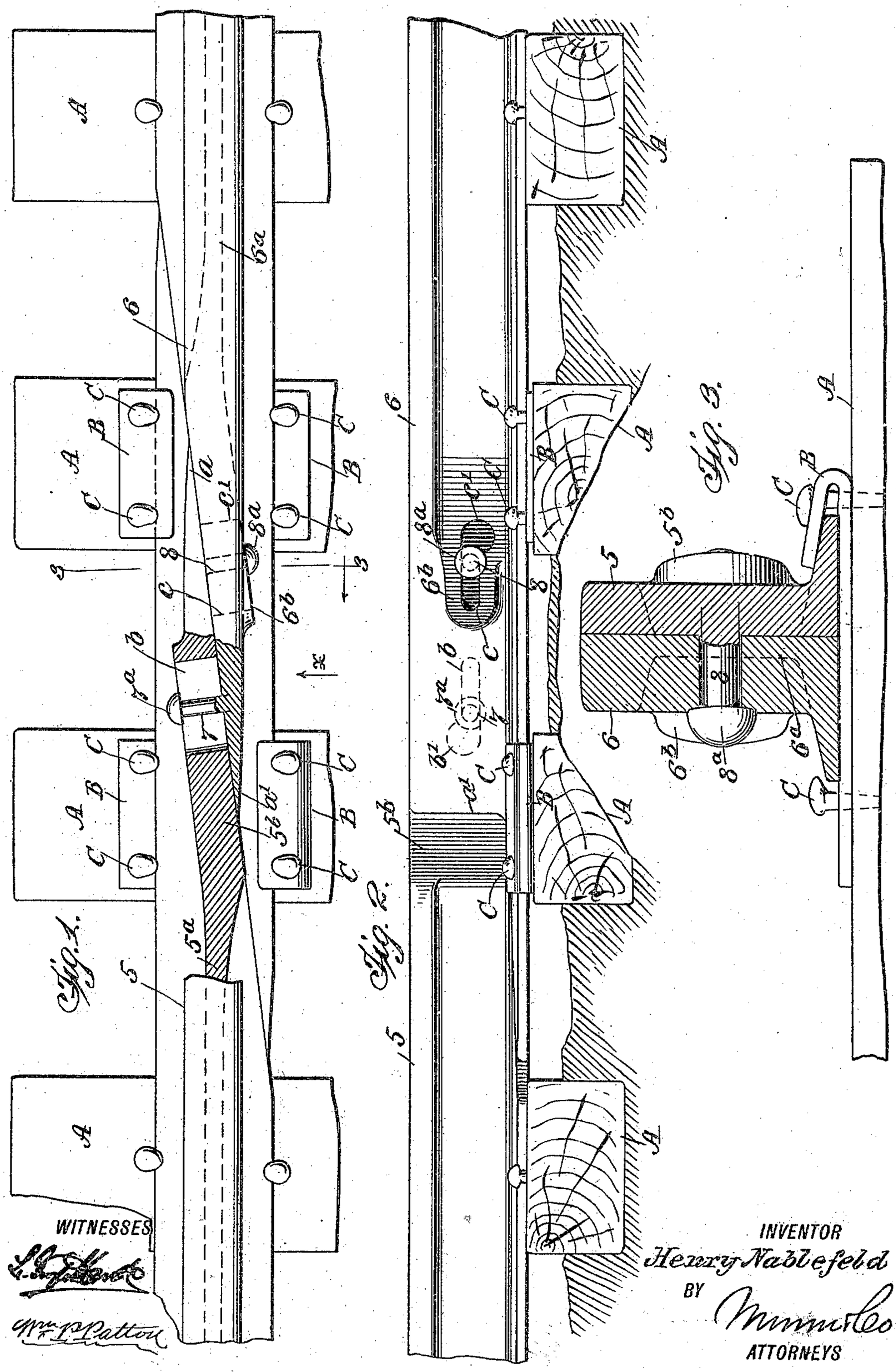
951,690. Patented Mar. 8, 1910.



WITNESSES

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RAILROAD-RAIL JOINT.

951,690. Specification of Letters Patent. **Patented Mar. 8, 1910.**

Application filed August 10, 1909. Serial No. 512,210.

To all whom it may concern:

Be it known that I, HENRY NABLEFELD, a citizen of the United States, and a resident of Monico, in the county of Oneida and State of Wisconsin, have invented a new and Improved Railroad-Rail Joint, of which the following is a full, clear, and exact description.

This invention relates to means for connecting together the meeting ends of railroad track rails, and the purpose of the invention is to provide novel details of construction for the track rails of a railroad, which will effect a proper alinement of the rails and compensate for their expansion and contraction due to their exposure to heat and cold.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a partly sectional plan view of end portions of two track-rails, connected together by the improved rail-joint; Fig. 2 is a side view of the connected rails at their joint, seen in the direction of the arrow *x* in Fig. 1, and Fig. 3 is a transverse sectional view, taken substantially on the line 3—3 in Fig. 1.

In the drawings, 5, 6 represent end portions of two track-rails which are connected together by the improved means. To facilitate the lapped engagement of the track-rail end portions, which is necessary in effecting the joining together of the same, each track-rail is cut away on the sides that have contact with each other, thus tapering said rail ends so that they respectively terminate in points *a*, *a'*.

On the web 5^a of the rail 5, near its wedge-shaped end *a*, said web is thickened or reinforced, as shown at 5^b in Fig. 1, and, as therein shown, said thickened portion that has parallel sides is disposed opposite the tapered end *a'* of the other track-rail 6. In the reinforced portion 5^b of the track-rail 5 a transverse slot *b* is formed, which extends longitudinally, and, as appears in dotted lines in Fig. 2, an enlargement *b'* is formed in the slot at the end which is farthest from the point *a*.

The web 6^a of the track-rail 6, a short distance from the point *a'* thereon, is thickened on the outer side in a direction toward said point, so as to render the sides of said thickened portion 6^b of the web 6 parallel with each other.

In the reinforced portion 6^b of the web 6 a longitudinal slot *c* is formed, at an equal distance from the point *a'* as is the slot *b* from the point *a* on the track-rail 5. The slot *c* at the end thereof which is farthest from the point *a'* is enlarged, as appears at *c'* in Fig. 2.

In the tapered portion of the track-rail web 6^a, near the point *a'* thereon, a headed bolt 7 is secured, that projects at a right-angle from the tapered side of the rail web 6^a, and from a like side wall on the tapered end of the web 5^a a similar headed bolt 8 is laterally projected at an equal distance from the point *a* as is the bolt 7 from the point *a'*.

Assuming that the track rails 5, 6 are to be supported on a road-bed by the cross-ties A, which are so relatively positioned that the tapered ends of the track-rails will be disposed above certain of the cross-ties, the track-rails receive chairs B, that embrace the base-flanges of said track-rails in the usual manner, and after the rail ends are connected together, said chairs are secured on the cross-ties by spikes C. It will be seen that to connect the track-rails together at their tapered ends, the stud-bolts 7, 8 are respectively passed through the slots *b* and *c*, to effect which the rails are so relatively positioned that the heads 7^a, 8^a of the bolts will be disposed opposite the enlarged openings *b'*, *c'* respectively. The rails are now caused to have contact on their tapered sides, which will insert the heads 7^a, 8^a through respective openings *b'*, *c'*. The rails are now longitudinally adjusted, so as to move the bolts 7, 8 along in the slots *b*, *c*, away from the openings at their ends, which will adapt the heads of the bolts 7, 8 to bear upon the defining side edges of the slots they are located in, and hold the ends of the rails laterally clamped together. It will be evident that if the chairs B are now firmly secured on the cross-ties A by the spikes C, the track-rails that have been connected together by the improved means will be ren-

dered practically continuous, but free to expand and contract longitudinally in accord with changes in temperature, that will lengthen or shorten them.

The improved track-rail joint is adapted for connecting track-rails on straight or curved tracks, and is generally available as a track-rail joint where compensation for changes in the length thereof is essential.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A track-rail joint, comprising two rails having their lapped ends correspondingly sloped, the web of each rail having its sloped end provided with a longitudinal slot having one end enlarged, and a headed bolt on each rail, adapted to engage with and slide in a respective slot.

2. A track-rail joint, comprising two rails having their lapped ends laterally sloped an equal degree, the sloped rail webs being thickened on their opposite sides so as to render the sides of respective webs parallel with each other, each thickened portion of a rail web having a longitudinal slot therein, each slot terminating at one end in an enlargement, and two stud bolts having a head on the free end of each and projected laterally, the head of each bolt being adapted to pass through a corresponding opening in an opposite slot and be caused to contact with the edges of a respective slot when the track-rails are longitudinally adjusted.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY NABLEFELD.

Witnesses:
JOHN NYE,
EMIL HASS.