

No. 820,722.

PATENTED MAY 15, 1906.

D. E. LINDSAY.
RAIL AND TIE FOR RAILROADS.
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Fig. 1.

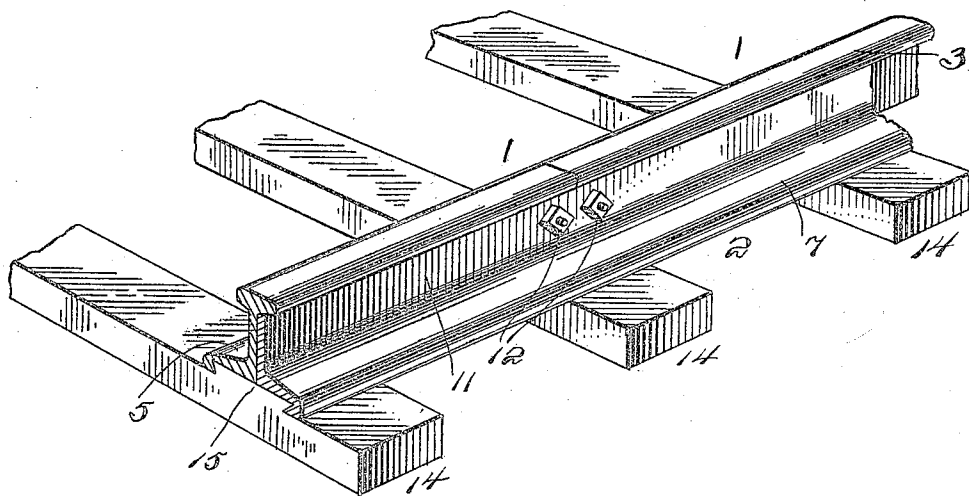
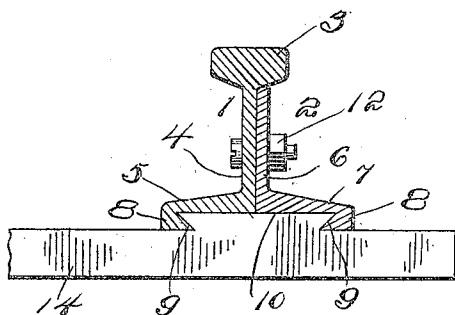


Fig. 2.



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UNITED STATES PATENT OFFICE.

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RAIL AND TIE FOR RAILROADS.

No. 820,722.

Specification of Letters Patent.

Patented May 15, 1906.

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To all whom it may concern:

Be it known that I, DAVID E. LINDSAY, a citizen of the United States of America, residing at Etna, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rails and Ties for Railroads, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in rails and ties for railroads; and the invention has for its primary object to provide interlocking rails of a novel construction which will dispense with fish-bars, fish-plates, and base-plates.

Another object of this invention is to provide a novel form of tie upon which my improved rails are mounted, the ties being constructed to prevent the rails from sliding or spreading, at the same time forming a firm foundation for the rails.

A further object of this invention is to provide rails having practically a continuous tread, whereby the jarring of the rolling-stock passing over the rails will be reduced to a minimum.

A still further object of this invention is to provide rails which can be laid and properly positioned upon their ties or supports by unskilled labor, the simple construction employed in connection with the rails permitting of the same being manufactured at a comparatively small cost.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, to be hereinafter more fully described and claimed, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout both views, in which—

Figure 1 is a perspective view of one of my improved rails, showing the same supported by ties or sleepers. Fig. 2 is a cross-sectional view of the same.

To put my invention into practice, I construct my improved rails of two parts 1 and 2, the part 1 consisting of a head 3, a web portion 4, and a base-flange 5, while the part 2 consists of a web portion 6 and a base-flange 7. When the parts 1 and 2 are secured together, a rail is provided having substantially the same configuration in cross-section as the ordinary type of rail at present used.

The base-flanges 5 and 7 of the parts 1 and 2 are provided with depending flanges 8, having beveled surfaces 9 9, which form a dovetail groove 10 when the parts 1 and 2 are secured together.

In constructing the parts 1 and 2 of my improved rails I form the same of equal length; but in placing them together they are arranged alternately, whereby the central portion 11 of the part 2 will coincide with the web portions 4 of the confronting ends of the parts 1 1, while the confronting ends of the parts 2 2 will coincide with the central portion of the parts 1. In this manner the adjoining ends of the parts 1 and 2 will be braced, and to secure the parts together I use bolts and nuts 12, which pass through the confronting ends of the parts 1 1 and the central portion 11 of the part 2. Likewise the confronting ends of the parts 2 2 will be secured to the central portions of the parts 1 1.

In conjunction with my improved rail I use ties or sleepers 14, which are preferably constructed of metal. The upper faces of the ties or sleepers are provided with transverse dovetail tongues 15, adapted to engage in the dovetail grooves 10, formed by the base-flanges 5 and 7 of my improved rail. The ties or sleepers 14 are arranged whereby the tongues 15 will longitudinally aline with one another to support the parts 1 and 2 of my improved rail, said parts being locked in engagement with the tongues 15 of the ties or sleepers 14 by the bolts and nuts 12 12.

The parts of my improved rails can be easily rolled, and the manner in which said parts are secured together dispenses with the use of fish bars or plates, while the tongues 15 of the ties or sleepers dispense with base-plates.

I do not care to confine myself to the weight of rail or the dimensions thereof, and such changes in the construction of the rail 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. The combination with ties having dovetail tongues, of a rail adapted to engage the tongues of said ties, said rail consisting of two parts, a head carried by one of said parts and common to both parts, a base-flange carried by each part and forming a dovetail groove when said parts are secured together, substantially as described.

2. The combination with ties having dove-

tail tongues, of a rail engaged by said
tongues, said rail consisting of two parts al-
ternately arranged together, base-flanges
carried by said parts and forming a dovetail
5 groove to receive the tongues of said ties,
substantially as described.

3. The combination with ties having
tongues, of a rail adapted to engage said
tongues, said rail consisting of two parts, the
10 ends of one part being arranged centrally of
the other part, base-flanges carried by said
parts and engaging said tongues, means to
secure said parts together, substantially as
described.

15 4. A tie provided on its upper face with a
tongue having inclined side edges, combined
with a rail having base-flanges resting on said
tongue, and depending side flanges carried by
said base-flanges, said depending side flanges
20 having inclined inner faces engaging the in-
clined side edges of said tongue.

5. A rail formed in two members adapted
to be secured together, each member having

a base-flange provided with a groove, and a
tie having a tongue adapted to fit in said 25
grooves in the base-flanges of the rail mem-
bers.

6. A rail provided in its base with a groove,
combined with a tie, and means carried by
the tie engaging in the groove of the rail and 30
securing the rail to the tie.

7. A two-part rail provided in its base with
a groove, combined with a tie, and means
carried by the tie engaging in the groove of
the rail and securing said rail to the tie. 35

8. A rail provided with a base, and de-
pending side flanges carried by said base,
combined with a tie, and means locking the
tie to said side flanges of the rail.

In testimony whereof I affix my signature 40
in the presence of two witnesses.

DAVID E. LINDSAY.

Witnesses:

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