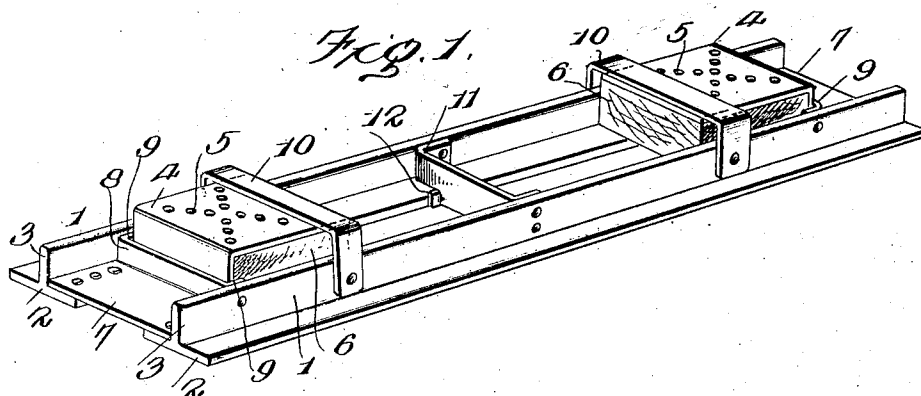
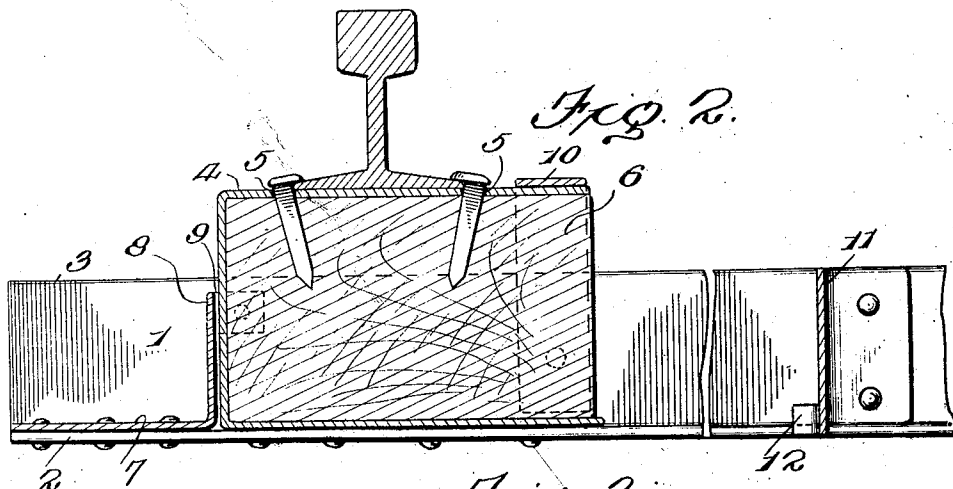
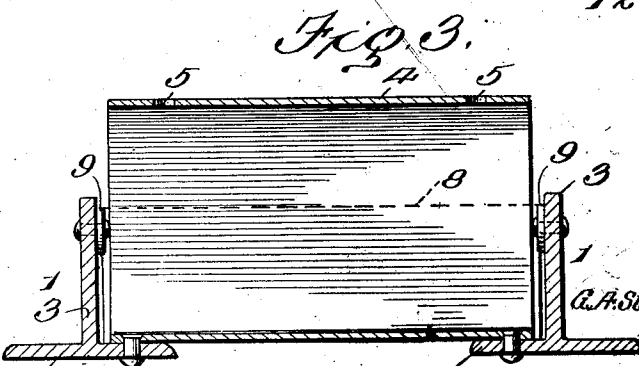


G. A. STARKWEATHER.
RAILWAY TIE.
APPLICATION FILED FEB. 3, 1909.

928,814

Patented July 20, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE A. STARKWEATHER, OF PONTIAC, ILLINOIS.

RAILWAY-TIE.

No. 928,814.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed February 3, 1909. Serial No. 475,807.

To all whom it may concern:

Be it known that I, GEORGE A. STARKWEATHER, a citizen of the United States, residing at Pontiosuc, in the county of Hancock and State of Illinois, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

The object of this invention is an improved construction of railway ties, which will be characterized by lightness, simplicity, durability and strength, and the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which,

Figure 1 is a perspective view of a metallic railway tie constructed in accordance with my invention. Fig. 2 is an enlarged longitudinal sectional view of one end portion of the tie showing a rail secured thereto, and Fig. 3 is a transverse sectional view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

My improved metallic tie comprises foundation members 1, which in the present instance are in the form of T-bars designed to rest upon their base flanges 2.

3 designates the upstanding webs of the foundation members, the said members being arranged parallel to each other and in spaced relation, as clearly illustrated in the accompanying drawings.

4 designates saddles that are preferably formed of sheet metal bent into U-shape, as shown, the base portions of said saddles resting upon and being secured by rivets or the like to the inwardly extending base flanges 2 of the respective foundation members 1. The U-shaped saddles 4 face inwardly, as shown, and the upper horizontally disposed portions are formed with spike holes 5 that are arranged obliquely, as shown, so as to compensate for different position of the spikes according to the alignment or position of the rails that are designed to rest upon said saddles. The saddles 4 contain preferably wooden blocks 6 into which the spikes are driven to secure the rails to the tie. The blocks 6 and saddles 4 are reinforced by brace plates 7 that

are secured to the inner base flanges 2 of the foundation members 1 and the ends thereof being riveted or otherwise fastened. The brace plates are located outside of the saddles and are formed with upstanding portions 8 extending along the rear sides of the saddles 4 and with inwardly projecting ears 9 that are riveted to the webs 3 upon opposite sides of the saddles, thereby effectively bracing the latter. In addition to the brace plates 7 the saddles are braced and secured in place by means of metallic straps 10 which extend over the inner edges of the upper portions of the saddles 4 and extend over the outer faces of the webs 3, being riveted or otherwise secured to said webs.

11 designates a brace which fits in between the base flanges 2 and which is formed with angular ends 12, riveted or otherwise secured to the web, the brace 11 being located at or near the middle of the tie, and bracing the same at this point.

From the foregoing description in connection with the accompanying drawings, it will be seen that I have provided a combination tie formed principally of metal and of a simple durable light and efficient construction, the parts being easily manufactured and readily assembled to form the completed structure.

The upper portion of the U-shaped saddle 4 comprises a tie-plate to which the rail may be secured by the spikes in the holes 5, and is designed to line the rail during the season of the year when the ties themselves are frozen solid and cannot be moved back into line. The expansion of the tie would not be enough to affect the gage of the track, and if the track should get out of line, by having the spike holes 5, arranged as hereinbefore described, the rails may be easily lined up.

Having thus described the invention, what is claimed as new is:—

1. A railway tie, comprising foundation members arranged in spaced relation to each other and embodying base flanges, U-shaped saddles having their lower portions secured to and resting upon the base flanges, blocks mounted in said saddles, and brace plates secured to the base flanges of the foundation members and engaging said saddles to reinforce the same.

2. A railway tie comprising foundation members arranged in spaced relation to each other and embodying base flanges and upstanding webs, saddles resting upon and

secured to the base flanges, blocks mounted in said saddles and straps extending over the ends of said saddles and over the webs and secured to the latter.

- 5 3. A railway tie, comprising foundation members arranged in spaced relation to each other and embodying base flanges and webs, saddles supported upon and secured to said flanges, blocks mounted in said saddles, and
10 reinforced plates secured to said base flanges

and formed with upstanding portions engaging the rear sides of the saddles, said upstanding portions being formed with inwardly projecting ears secured to the webs.

In testimony whereof I affix my signature 15 in presence of two witnesses.

GEO. A. STARKWEATHER. [L. S.]

Witnesses:

LEWIS LAMBRIGHT,
ALEXANDER ABERNETHY.