

J. C. PEARCE.
RAILROAD TIE.
APPLICATION FILED MAY 17, 1909.

944,815.

Patented Dec. 28, 1909.

Fig. 1.

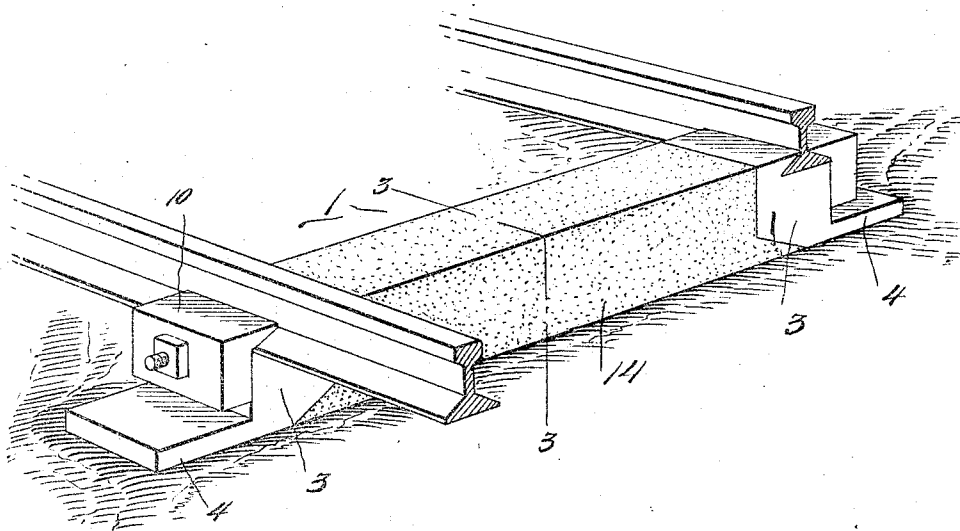


Fig. 2.

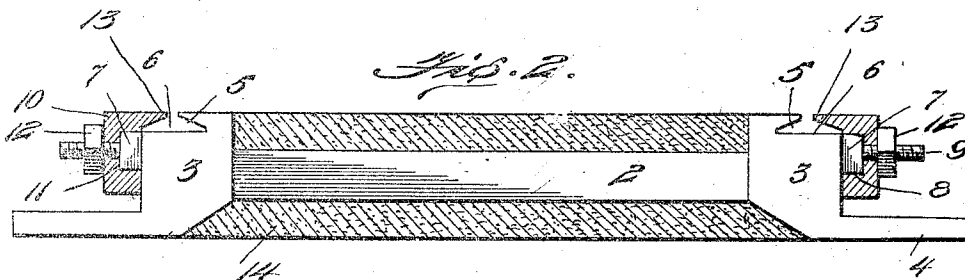
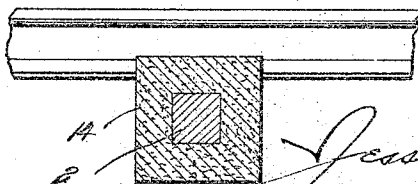


Fig. 3.



Jesse C. Pearce
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Witnesses

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JESSE C. PEARCE, OF FINDLAY, ILLINOIS, ASSIGNOR OF ONE-HALF TO JAMES J. HARSH,
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RAILROAD-TIE.

944,815.

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To all whom it may concern:

Be it known that I, JESSE C. PEARCE, a citizen of the United States, residing at Findlay, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification.

My invention relates to improvements in railroad ties, and the leading object of my invention is the provision of a strong and durable tie which will support and at the same time brace the rails to prevent their spreading.

Another object of my invention is the provision of a device of this character which will serve as a gage in laying the track and will absolutely prevent the track from contracting or spreading and will insure a track of exactly standard gage at all times.

To attain these and other desired objects hereinafter disclosed, my invention consists in a railroad tie embodying novel features of construction and combination and arrangement of parts for service substantially as disclosed and as illustrated in the accompanying drawings.

Figure 1, represents a perspective view of my tie applied in position to the track. Fig. 2, represents a vertical longitudinal sectional view of Fig. 1, and, Fig. 3, is a sectional view on the line 3—3 of Fig. 1.

In the drawings; the numeral 1 designates a tie constructed in accordance with and embodying my invention, said tie consisting of the metal rod or bar 2, having the supporting blocks 3 formed on each end thereof, said blocks 3 being formed with the outwardly projecting flange 4 on the exterior side of the base, and having the inner corner of the base cut away. The outer portion of the upper face of the block is also cut away to provide the angular recess 5 for engaging and retaining the foot of the rail and the flat portion 6 on which the rail rests. On the outer face of the block is formed the lug 7, having the squared base portion 8 and the screw threaded outer portion 9.

To retain the rail in place upon the tie, I provide the clamping block or member 10, having a squared recess 11 in one of its faces to fit over and engage the square base 8 of the lug, and in the center of said recess is an opening through which the threaded end of the lug passes, the block 10 being se-

cured in place by means of the nut 12, which engages said threaded end and is turned thereon until it bears tightly against the clamping member and locks it in position.

The block 10 has formed on its face adjacent to the recess 11 the substantially triangular shaped flange 13 which is shaped to conform to the shape of the foot of the rail, and in operation, the rail is placed with its base resting on the flat portion 6 of the supporting block and its flange at the base fitting in the recess 5. The clamping block is then passed over the outer end of the lug and the tightening of the nut 12 forces it inward against the rail and it in its turn forces the rail tightly into the recess in the supporting block and holds it firmly there, while at the same time the flange 13 on the clamping member engages the flange on the outside of the foot of the rail and thus the rail is firmly and immovably held in place on the tie.

To aid in counteracting the expansion and contraction of the bar 2 and thus the consequent shifting of the rails, due to change of temperature, I mold around said bar a casing 14, composed of concrete or some like material, said casing fitting around the bar and into the cut away portions of the base of the blocks 3 and abutting against the inner faces of the blocks and flush with the adjacent faces thereof, as seen most clearly in Fig. 3.

From the foregoing description taken in connection with the drawings it will be seen that I provide a simple, strong and durable tie which can be manufactured at a low price and which will absolutely prevent the spreading of the rails, which will obviate the necessity for the use of fastening spikes for the rails which are liable to become loosened by the jarring of the trains.

It will also be understood that by this construction while I do away with the use of wooden ties which readily rot, I guard against the danger involved by the use of ordinary ties formed from metal which are variable in length according to the temperature by providing the concrete casing for the intermediate portion of the tie, and I brace the tie at the ends by means of the extending flanges 4 on the base.

It will further be understood that I do not limit myself to the specific construction

herein shown but may make my device in any form which will accord with the spirit or fall in the scope of this invention.

I claim:

5 1. In combination with the rails, a bar, supporting blocks integral with the bar and formed on the end thereof, said blocks having recesses formed therein to receive the
10 foot of the rails, clamps engaging the outer flange of the foot of the rails, and means having engagement with the blocks and the clamps for securing the latter in position.

15 2. In combination with the rails, a bar, supporting blocks formed on the ends thereof, said blocks having recesses formed therein to receive the inner flange of the foot of the rails, a lug having a squared base formed on the outer side of each block, a clamp having a corresponding recess mounted on the
20 lug and engaging the outer flange of the foot of the rail, and means engaging the outer

end of the lug for retaining the clamp in engagement with the rail.

3. In combination with the rails, supporting blocks therefor having recesses to receive 25 the rails, and outwardly extending base flanges on said blocks, means connecting said blocks, a casing formed on said means and making flush joints with the blocks for bracing the blocks and connections, lugs projecting from the outer faces of the blocks 30 and having screw threaded ends, clamps mounted on said lugs, and nuts engaged on the lugs for securing the clamps in engagement with the rails. 35

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

JESSE C. PEARCE.

Witnesses:

BRAZ D. LULL,

U. G. WARD.