

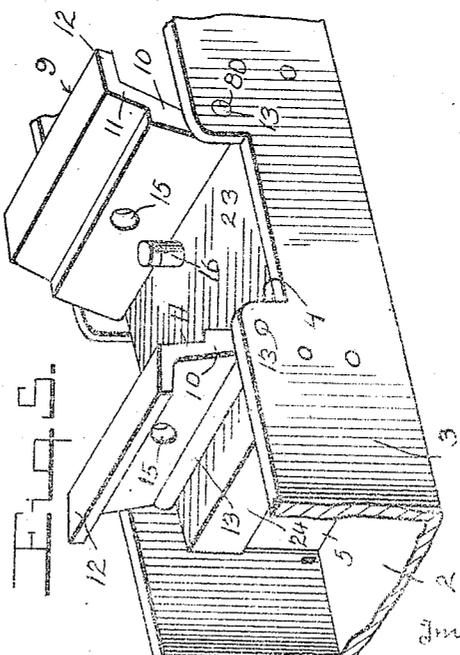
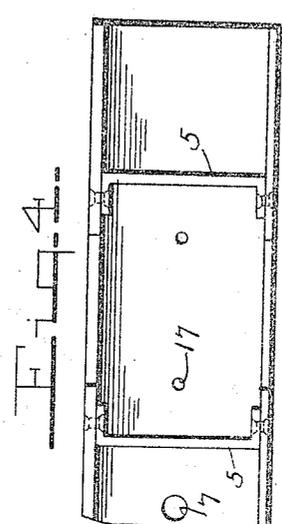
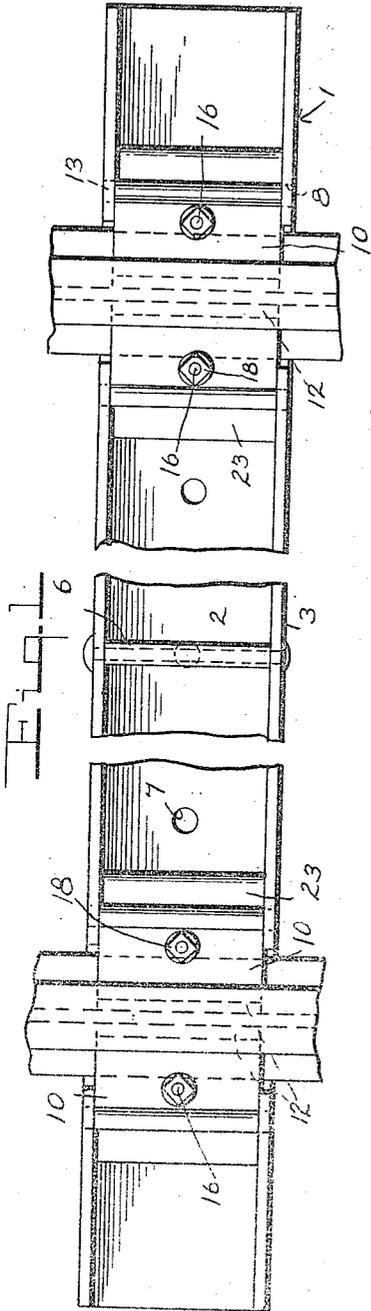
E. H. SPIERS.
RAILROAD TIE.

APPLICATION FILED FEB. 27, 1915.

1,155,287.

Patented Sept. 28, 1915.

2 SHEETS—SHEET 1.



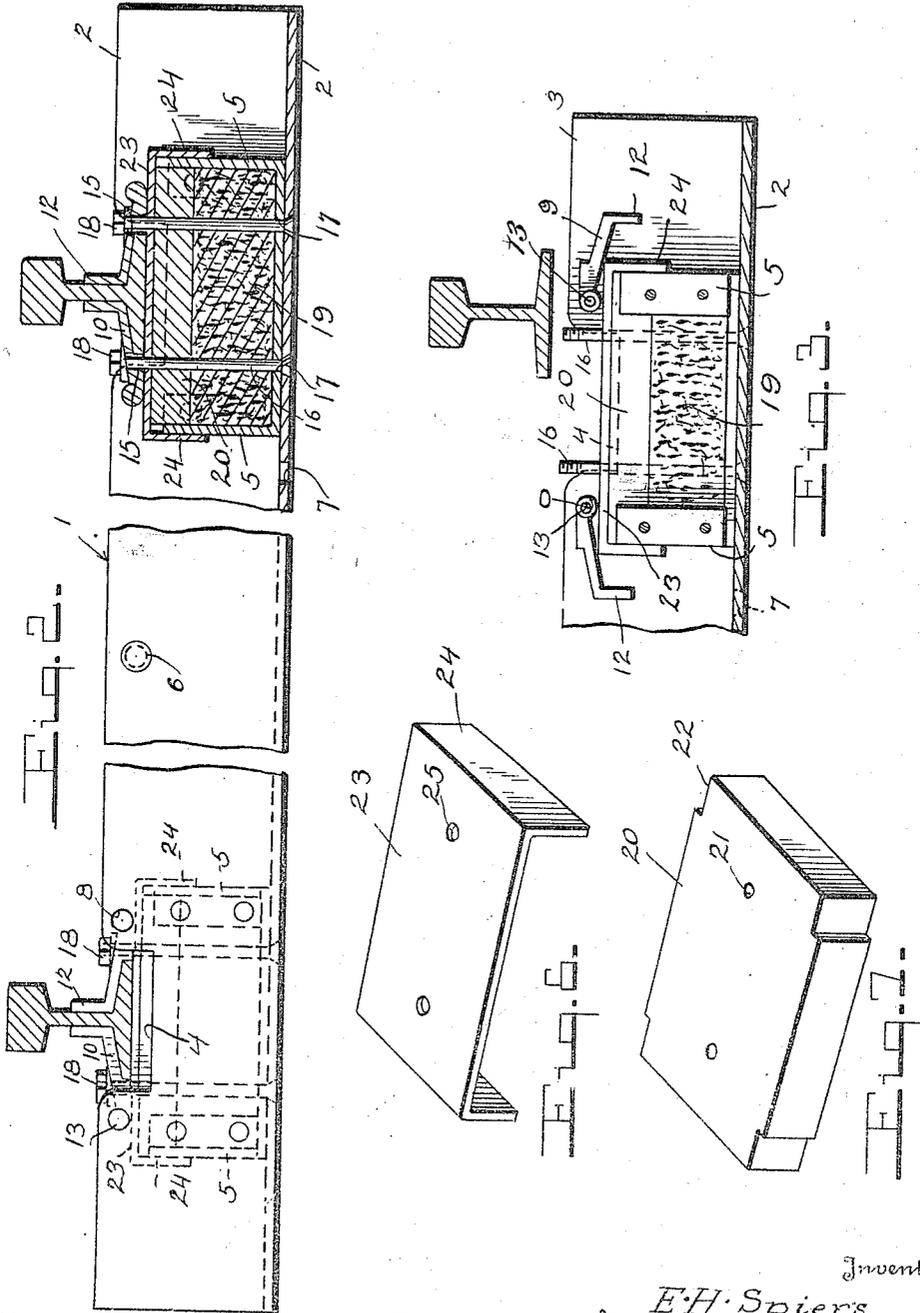
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EDGAR H. SPIERS, OF LAGRANGE, GEORGIA

RAILROAD-TIE.

1,155,287

Specification of Letters Patent. Patented Sept. 28, 1915.

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To all whom it may concern:

Be it known that I, EDGAR H. SPIERS, a citizen of the United States, residing at Lagrange, in the county of Troup and State of Georgia, have invented certain new and useful Improvements in Railroad-Ties; and I do hereby 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.

This invention relates to new and useful improvements in railroad ties, and has for its principal object to provide a tie which is particularly adapted for use in place of the usual wood tie and which will effectively prevent the rails from sinking, creeping, or spreading.

Another object of the invention is to provide a tie having a novel fastening means carried thereby which is designed to permit the tie to be easily removed and a new one substituted in case of breakage.

A further object of the invention is to provide a tie which may be slipped beneath a railroad track which has already been laid by simply jacking up the track and sliding the tie underneath the flanges of the rails into the desired position.

Still another and more specific object of the invention is to provide a rail brace carried by the fastening means which will effectively prevent the rails from twisting and becoming broken.

A still further object of the invention is to provide a tie which is provided with a suitable cushioning means to give the same the desired resiliency and thereby relieve much of the wear and tear on both the rails and the rolling stock of the railroad.

The invention consists essentially in a substantially trough-shaped body provided with a pair of chambers near its ends for the reception of the cushioning means to give the tie the desired resiliency. The tie is provided with a pair of pivoted clamps for each of the rail seats which may be thrown on their pivots to overlie the rail seats and engage the rail flange, or which may be thrown to the opposite position and when open will lie beneath the upper surface of the tie, thereby eliminating any projection which will hinder the positioning of the tie beneath the track in event it is necessary to replace or repair the tie.

With these and other objects in view, the

invention consists in the novel combination and arrangement of parts which will be fully set forth in the following specification and accompanying drawings, in which, 60

Figure 1 is a top plan view of a railroad tie constructed in accordance with this invention showing portions broken away, Fig. 2 is a side view in elevation of Fig. 1, Fig. 3 is a longitudinal sectional view showing the device as it would appear when being slipped in place beneath a track which has already been laid and showing the rails jacked up to permit the tie to be easily placed in position, Fig. 4 is a top plan view of the tie showing the fastening means removed, Fig. 5 is a fragmentary perspective view showing the rail clamps raised, Fig. 6 is a detail perspective view of a rail seat, and Fig. 7 is a detail perspective view of the filler block. 65 70 75

Referring to the drawings by characters of reference, the numeral 1 designates an entirety the tie which comprises the base 2, having formed thereon the upstanding flanges 3. The whole forms a trough-shaped metallic body which is provided at each end with the notches 4, which form chambers for the reception of the rails. Secured in the tie between the flanges 3 and to each side of the notches 4 are the partition walls 5 which are riveted or otherwise secured within the tie as clearly shown. A suitable brace 6 is secured centrally of said tie and extends between the upper edges of the flanges 3 as clearly shown in the drawings. Suitable drain openings 7 are formed in the base 2 and are designed to permit the water, which may gather therein, to escape. Formed near the notches 4 are suitable apertures 8 which are designed to form bearings for the ends of the rail clamps, which will be more fully hereinafter described. 80 85 90 95

The rail clamps above mentioned are designated generally by the numeral 9 and comprise the body 10 having formed thereon the flange 11 which is designed to engage the rail flange and cooperate with the angularly extending flange 12, which engages the web of the rail. Loosely mounted in the ends of the body 10 are the pins 13 the ends of which are riveted in the apertures 8 to hold the rail clamp in pivoted position. Formed centrally of the longitudinal extensions of the body 10 is a suitable aperture 15 for the reception of the clamping screw 16 which extends through the aperture 17 in 100 105 110

the bottom of the tie and is provided with the nut 18 for an obvious purpose.

The chamber formed between the partition walls 5 of the tie is preferably filled with asphalt or a similar resilient material, designated by the numeral 19, and the upper surface of the asphalt is provided with the cover or filler block 20, which is preferably of wood or a similar fibrous material. This block is formed with apertures 21 for the reception of the screw 16 hereinbefore referred to, and is notched as at 22 to accommodate the flanges of the partition walls 5 as illustrated in Fig. 7. Resting on the filler block 20 is the wear plate 23 having the downwardly turned flanges 24 formed at each end. Suitable apertures 25 are formed in alinement with the apertures 21 to receive the clamping screw 16 and the flanges 24 engage the outer faces of the walls 5 as clearly shown in Figs. 3 and 2.

It will be apparent from the foregoing that in laying a track, the ties are first placed in position in the usual way and the rails are then placed thereon between the clamping screws 16 and in the notches 4 so that they rest upon the wear plate 23 as clearly shown in Fig. 2. The rail clamps are then swung on their pivots so as to engage the rails and the nuts 18 are then threaded on the clamping screws and it will be apparent that the whole is firmly clamped together. In event it is necessary to repair or replace the tie, it is apparent that by releasing the nuts, the clamps may be thrown into the position shown in Fig. 3, and it will be apparent that the tie may be withdrawn by jacking up the rails to support the same above the surface thereof. Due to the fact

that there are no projections above the tie, it will be evident that only a slight raising of the rail is necessary and the tie may be slipped from beneath the track and a new tie substituted. It is also apparent that the cushioning material 19 and 20 will effectively give the tie the desired resiliency and thus many of the shocks through the rolling stock are taken up.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that such changes may be made in the combination and arrangement of parts as will fall within the spirit and scope of the appended claim.

What is claimed is:—

A railroad tie of the character described comprising a base, flanges formed on the base, said flanges being notched near each end in their upper edges, partition walls extending between the flanges to form chambers, cushioning elements within the chambers, rail clamps pivoted between the upper edges of the flanges, clamping screws extending through the base and through the cushioning members, a wear plate supported on the cushioning members, the clamping screws extending through the wear plate, flange and web engaging flanges on the rail clamps and nuts cooperating with the clamping screws to hold the rail clamps in engagement with the railroad rail.

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

EDGAR H. SPIERS.

Witnesses:

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