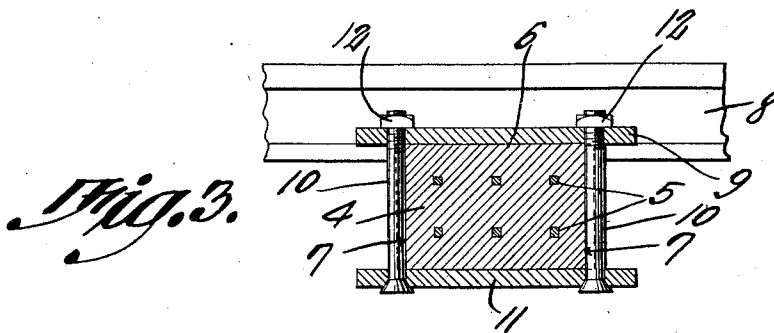
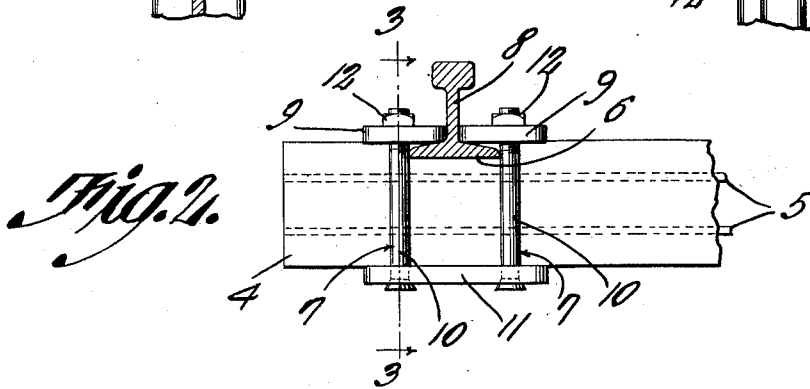
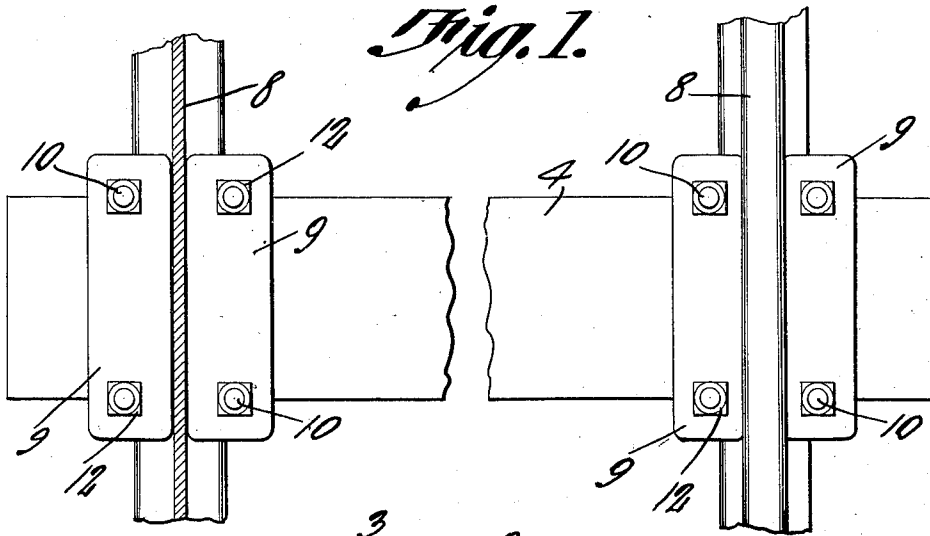


J. P. PARSHALL.
 CONCRETE RAILROAD TIE.
 APPLICATION FILED MAR. 17, 1913.

1,063,586.

Patented June 3, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

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CONCRETE RAILROAD-TIE.

1,063,586.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed March 17, 1913. Serial No. 754,934.

To all whom it may concern:

Be it known that I, JOSEPH P. PARSHALL, a citizen of the United States, residing at Sabinsville, in the county of Tioga and State of Pennsylvania, have invented a new and useful Concrete Railroad-Tie, of which the following is a specification.

The present invention appertains to concrete railroad ties, and aims to provide a novel and improved device of that character.

It is the object of the present invention to provide a reinforced concrete or plastic tie, in combination with novel means for attaching the rail flanges to the tie, the rail attaching means being so designed as to assist in protecting the tie against breakage or injury due to objects striking the same adjoining the rails, and due to the strains to which the rails are subjected.

The present invention also has for its object to provide a device of the nature indicated which shall be comparatively simple, substantial, durable and inexpensive in construction, as well as efficient, serviceable and convenient in its use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention has been illustrated in its preferred embodiment in the accompanying drawing, wherein:—

Figure 1 is a plan view of the tie, partly broken away, showing the rails attached thereto, one rail being shown in section. Fig. 2 is a fragmental side elevation of the tie and showing a rail attached thereto. Fig. 3 is a transverse section taken on the lines 3—3 of Fig. 2.

Referring specifically to the drawing, the numeral 4 designates the tie, which is of suitable length and cross section, and which is molded of concrete or other plastic material.

The tie is preferably provided with a plurality of longitudinal reinforcing rods 5 extending from end to end, which rods may be

of any suitable construction, such as twisted angle irons, or the like.

The tie is provided with an upper transverse channel adjoining each end for the reception of the respective rail flange and the tie is further provided with upright semi-circular grooves 7 in its sides directly adjoining the respective edges of the channels. Otherwise, the tie is free from any grooves, recesses, projections and the like, and as a consequence, the tie may be readily molded or formed.

The rails have been designated by the numeral 8, the base flanges thereof passing through the channels 6, and transverse strips 9 rest flatly on the tie adjoining and overhanging the edges of the channels 6 so as to overlap the base flanges of the rails to lock the flanges in the channels. Bolts 10 fit partially in the grooves 7, and a plate 11 is disposed or bears against the bottom of the tie below each channel 6, the bolts 10 connecting the respective ends of the strips 9 and the plate 11 to clamp the parts in position. The bolts 10 are provided with the nuts 12 at their upper ends, the heads being disposed lowermost or in engagement with the plate 11. The strips 9 and plates 11 are preferably stamped from sheet metal of a suitable thickness or gage.

From the construction above described, it will be noted that the rails are free to slide longitudinally due to the expansion or contraction thereof, but are locked against lateral displacement, it being noted that the edges of the base flanges engage the bolts 10, so that the bolts will prevent the edges of the base flanges from cutting into the tie. The locking strips 9 retain the flanges of the rails within the channels 6. The bolts 10 not only prevent the flanges of the rails from wearing into the tie, but also protrude slightly from the sides of the tie, so as to prevent objects from striking the tie below the rails. However, the bolts 10 fit partially within the grooves 7 so as to lock the plates 11 and the strips 9 against longitudinal movement on the tie, it being noted that the strips 9 lie flatly on the tie with their adjoining edges overlapping the base flanges of the rails.

The present tie is comparatively simple, substantial, durable and inexpensive, and

may be readily placed in the road bed so as to withstand great usage, the same being practically indestructible.

From the foregoing, taken in connection with the drawing, it will be evident that the objects aimed at have been carried out satisfactorily, and that the present tie and rail attaching means, as a whole, are advantageous.

10 What is claimed as new is:—

A reinforced plastic tie having upper transverse channels for the reception of the rail flanges and having upright semi-circular grooves in its sides directly adjoining the respective edges of the channels, a plate bearing against the bottom of the tie below each channel, transverse locking strips rest-

ing flatly on the tie adjoining and overhanging the respective edges of the channels to retain the rail flanges in the channels, 20 and bolts fitting partially in the said grooves so as to protrude from the sides of the tie and connecting the respective ends of the strips and the respective plates, the bolts being arranged to engage the edges of the 25 base flanges.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH P. PARSHALL.

Witnesses:

J. L. THOMPSON,
JOHN FULESAD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."