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PATENTED MAY 26, 1908.

P. K. REAM & P. C. BOYD.
RAILWAY TIE.

APPLICATION FILED SEPT. 30, 1907.

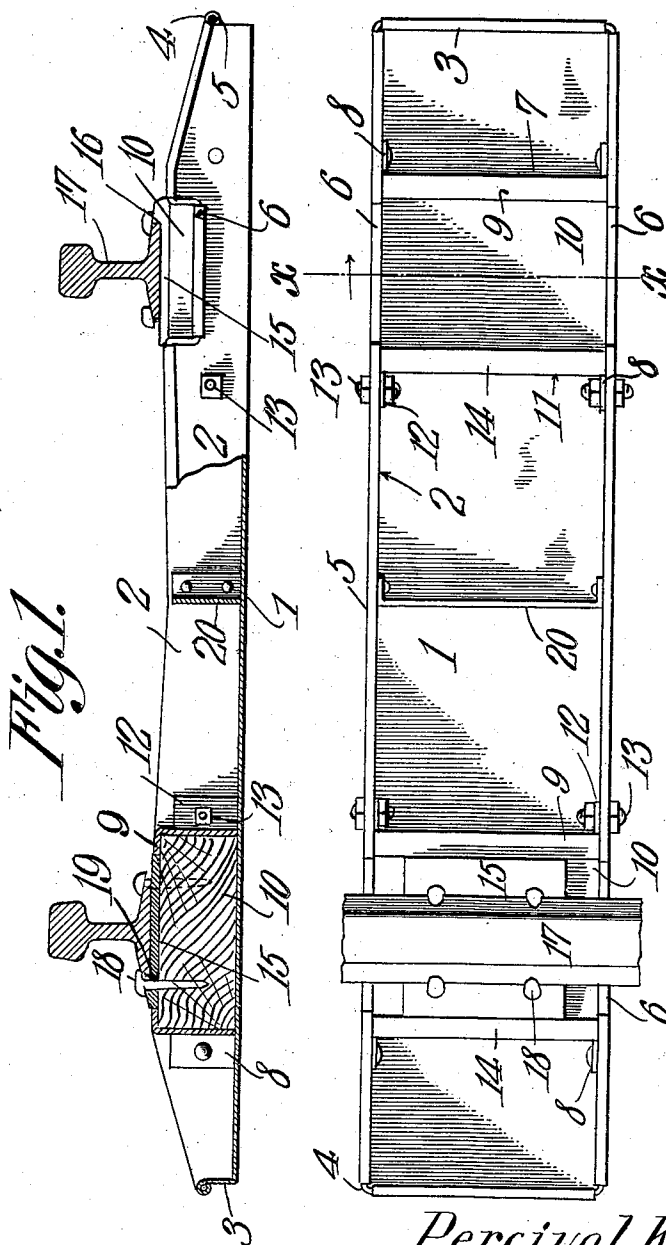


Fig. 2.

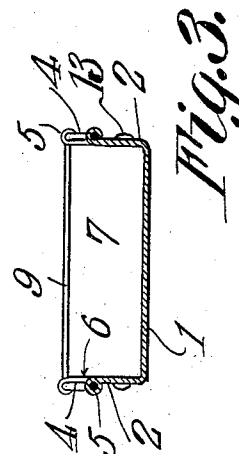


Fig. 3.

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Witnesses
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UNITED STATES PATENT OFFICE.

PERCIVAL K. REAM, OF HUMMELSTOWN, AND PETER C. BOYD, OF HARRISBURG,
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RAILWAY-TIE.

No. 888,928.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, PERCIVAL K. REAM and PETER C. BOYD, citizens of the United States, residing at Hummelstown and Harrisburg, respectively, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Railway-Tie, of which the following is a specification.

This invention relates to metallic railway ties and its object is to provide a device of this character which is durable but inexpensive in construction and which is provided with means whereby rails can be fastened by spikes in the usual manner.

A still further object is to provide a tie designed to hold a considerable quantity of ballast so that the tie will be securely held and prevented from creeping.

A still further object is to provide a tie having cushion blocks which can be readily placed in or removed from position within the tie and are designed to receive the securing spikes employed for fastening the rails in position.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a view of the tie partly in elevation and partly in longitudinal section, rails being shown in position thereon. Fig. 2 is a plan view of the tie, one of the cushioning blocks being removed. Fig. 3 is a section on line $x-x$, Fig. 2.

Referring to the figures by characters of reference, 1 designates a trough-like body of the tie, the same being preferably formed of sheet steel cut into a blank and folded so as to produce the side walls 2 and end walls 3, all of said walls being reinforced and bound together by means of a rod 4 extending through beads 5 produced along the upper edges of the walls as shown. If desired, however, in lieu of forming the body of a folded blank of sheet steel the same may be stamped or pressed into the desired shape, in which event the reinforcing rod shown and described may be dispensed with. The side walls 2 have their upper edges cut away adjacent the ends thereof to form recesses 6 which are preferably of greater width than the bases of the rails to be secured to the tie.

The two side walls are connected adjacent the outer ends of the recesses by means of cross strips 7 having end flanges 8 disposed perpendicularly thereto and riveted or otherwise permanently fastened to the walls 2. A retaining flange 9 is formed along the upper edge of the strip 7 and extends toward the recesses 6. Each of these flanges 9 laps the upper face of a cushioning block 10 which is fitted between side walls 2 and has its end portions exposed through the recesses 6, the upper faces of said blocks being preferably substantially flush with the upper edges of the side walls. The inner or adjoining faces of the blocks 10 are contacted by cross strips 11 interposed between the side walls 2 and having end flanges 12 designed to be detachably fastened to the walls 2 by means of bolts 13 or in any other preferred manner. Top flanges 14 are arranged longitudinally along the upper edges of the strips 11 and are designed to lap the upper faces of the blocks 10 and in connection with the flanges 9 securely retain the blocks in position. Each block is preferably coated with a suitable preservative so that it can withstand the action of moisture.

In using the tie the same is properly placed upon a road bed and the cushioning blocks 10 are fitted between the walls 2 and beneath the flanges 9 after which the retaining strips 11 are fastened in position with their flanges 14 resting on the blocks. A rail chair preferably in the form of a plate 15 having a longitudinal shoulder 16 is then placed upon each block and the rails 17 are positioned on the plates 15 with their outer base flanges abutting against the shoulders 16. Spikes 18 are then inserted into openings 19 formed within the plates 15 and driven into the blocks. Obviously the rails will therefore be fastened in place and although the main portion of the tie is formed of metal the blocks 10 have the same cushioning effect as is produced by the use of an ordinary wooden tie. It becomes impossible to remove these blocks unless strips 11 are first detached. In order that the tie may be securely held upon the road-bed the same is preferably filled with ballast.

As shown in Figs. 1 and 2 an intermediate strip such as indicated at 20 may be secured to the body 1 adjacent the center thereof for the purpose of reinforcing it transversely.

What is claimed is:

1. A metallic railway tie comprising a

sheet metal trough-like body formed in a single piece and a binding rod extending around and engaged by the edge portions of the body, the sides of said body having recesses reinforced at their edges by said rod.

2. A metallic railway tie comprising a sheet metal trough-like body formed in a single piece and a binding rod extending around and engaged by the edge portions of the body, the sides of said body having recesses reinforced at their edges by said rod, sheet metal strips secured between and connected to the sides of the tie, each of said strips having a retaining flange at its upper edge.

3. A metallic railway comprising a sheet metal trough-like body formed in a single piece and a binding rod extending around and

engaged by the edge portions of the body, the sides of said body having recesses reinforced at their edges by said rod, sheet metal strips secured between and connected to the sides of the tie, each of said strips having a retaining flange at its upper edge, and a cushioning block interposed between the cross strips and retained by the flanges, said blocks extending across the recesses in the side walls.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

PERCIVAL K. REAM.
PETER C. BOYD.

Witnesses:

H. S. H. NISSLEY,
W. M. SHULL.