W. T. SHIMP.

RAILROAD TIE.

APPLICATION FILED JAN. 25, 1910.

980,016.

Patented Dec. 27, 1910.

2 SHEETS—SHEET 1.

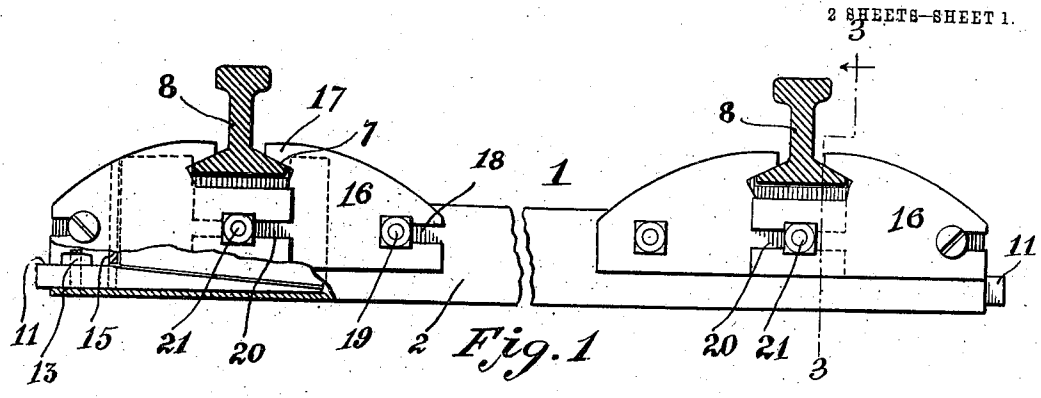

Fig. 1

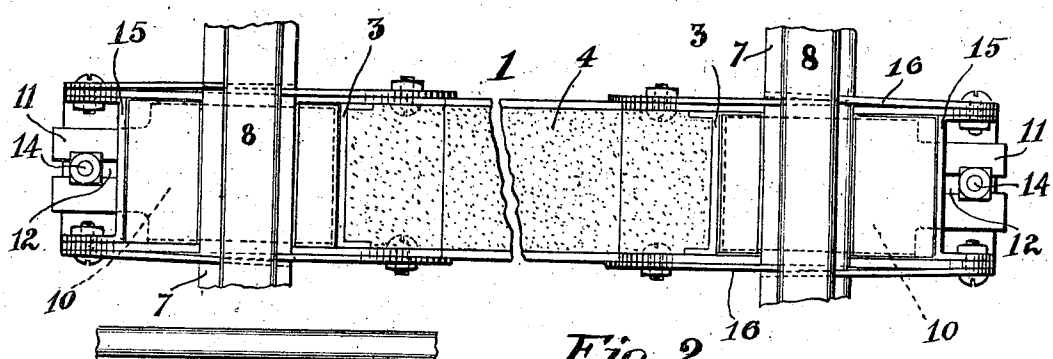

Fig. 2

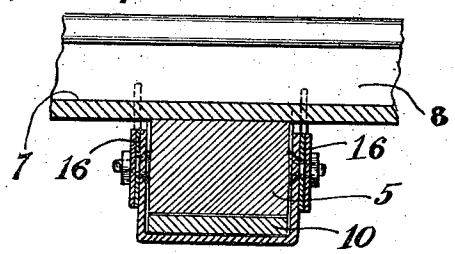

Fig. 3

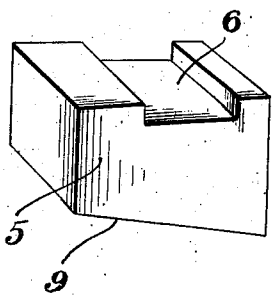

Fig. 4

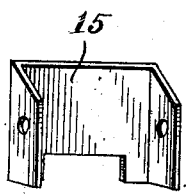

Fig. 5

Witnesses

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2 SHEETS—SHEET 2.

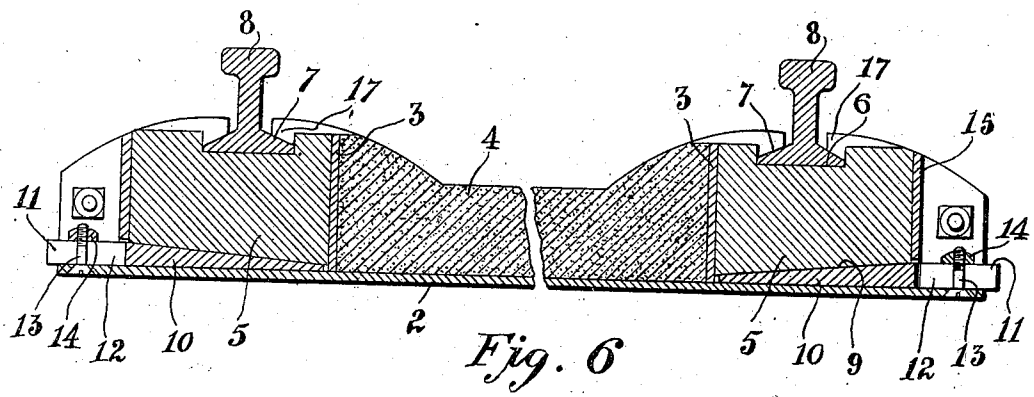

Fig. 6

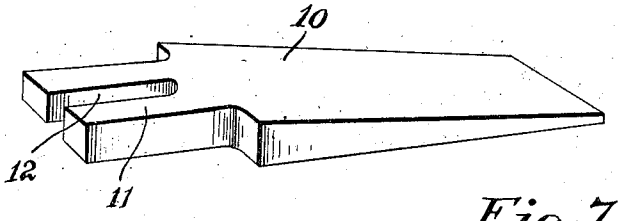

Fig. 7

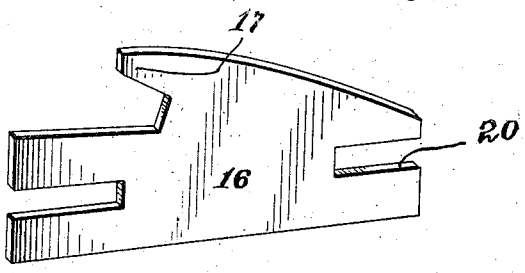

Fig. 8

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM T. SHIMP, OF PHILADELPHIA, PENNSYLVANIA.

RAILROAD-TIE.

980,016. Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed January 25, 1910. Serial No. 540,030.

To all whom it may concern:

Be it known that I, WILLIAM T. SHIMP, a citizen of the United States, residing at Holmesburg, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to improvements in railroad ties, and the object of the invention is to provide a device of this character comprising a metallic casing provided with partitions adjacent its central portion adapted for the reception of a plastic material such as cement or the like, the pockets adjacent the walls for this plastic material being provided with cushions for the rails composed of wood or the like, means being also provided whereby the said cushions may be adjusted so as to sustain the rails away from the metallic casing, and means being also provided whereby the rails are securely connected with the ties independent of the cushions.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the improvement, and in which drawings, Figure 1 is a side elevation of my improved tie. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view upon the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the rail cushions. Fig. 5 is a perspective view of the cushion retaining member. Fig. 6 is a central longitudinal sectional view of the tie. Fig. 7 is a perspective view of the cushion wedge. Fig. 8 is a perspective view of one of the rail securing clamps.

In the accompanying drawing the numeral 1 designates the improved rail tie. This tie comprises essentially a rectangular substantially cross sectionally U-shaped member constructed of suitable metal and indicated by the numeral 2. The metallic body member or shell 2 has its sides centrally depressed, as clearly illustrated in the several figures of the drawing and the tie is further provided with a pair of transversely extending partitions 3 each positioned a suitable distance away from the end of the tie and the pocket or compartment formed between which being adapted for the reception of suitable plastic material 4, such as cement or the like. This arrangement, it will be noted, adds great strength to the body 2 and effectively reinforces the sides of the said tie. The portions between the partitions 3 and the open ends of the tie are adapted for the reception of rail supporting blocks or cushions 5, the same being preferably constructed of wood and being provided with a transverse groove 6 of a width equaling the width of the base flanges 7 of the rail members 8. The under face 9 of the cushion 5 is inclined as clearly illustrated in Fig. 4 of the drawings and adapted to engage with this inclined face is a wedge member 10. By reference to Fig. 6 of the drawing it will be noted that the wedge member 10 is of a width corresponding with the distance between the sides of the U-shaped body member 2 and the same is provided adjacent its enlarged ends with a reduced portion 11 having a central longitudinal opening 12 which is adapted for the reception of a threaded element 13 passing through a suitable opening within the base of the U-shaped member 2, the said member being adapted for the reception of a bolt 14, whereby the wedge member 10 may be readily adjusted longitudinally of the body 2 and whereby the cushion 5 may be raised or lowered as desired. The ends of the tie are provided with suitable substantially U-shaped brackets 15, whereby these ends are prevented from spreading and also whereby the said ends are effectively reinforced. These brackets 15 do not extend the entire depth of the tie but terminate a suitable distance away from the bottom thereof so as to allow for the ready movement of the wedge member 10. The sides of the body 2 alining with the transverse groove 6 of the block or cushion member 5 are cut away a suitable distance so as to allow the base flange 7 of the rail 8 to lie directly upon the said block 5 without contacting the sides of the member 2.

From the above description, it will be noted that I have provided an extremely simple as well as thoroughly effective device for the purpose intended, and it is to be also understood that the rails 8 resting upon the wooden blocks or cushions 5 are given a certain amount of resiliency and further that the said rails at no time contact with the sides of the shell or body 2 and that the

transverse groove 6 within the said blocks 5 prevents the lateral movement of the rails so that liability of the rails contacting or injuring the sides of the shell is entirely obviated. It will be further noted that the rails may be readily adjusted vertically when desired and that no special tool need be employed for this purpose.

In order to effectively secure the rails 8 in proper position upon the ties 1, I have provided the sides of the said ties with what I term rail retaining members 16. These members are each constructed of a plate of suitable material and have their upper portions provided with lips 17 which are adapted to overlie the base flanges 7 of the rails 8. The members 16 have their upper portions of a shape corresponding with the enlarged side walls of the shell 2, and the said members are provided with a longitudinal slot 18 adjacent their outer edges, the latter being adapted for the reception of a suitable threaded element 19 removably carried by the sides of the body or shell 2. The opposite or forward ends of the member 16 are also provided with projecting portions, the same being provided with slots 20 adapted for the reception of suitable retaining elements 21 removably connected with the sides of the shell or body member 2. It is to be understood that the members 16 are arranged in pairs and are adapted to have their lips 17 engage each of the edges of the base flange 7 of the rails 8, and by the construction above described it will be readily noted that the members may be easily and quickly adjusted toward or away from each other to compensate for the different widths of the base flanges of rails.

From the above description, taken in connection with the accompanying drawings, it will be noted that I have provided a simple and effective device for the purpose intended, and while I have illustrated and described the preferred embodiment of the improvement, as it now appears to me, minor details of construction, within the scope of the following claims may be resorted to if desired.

Having thus fully described the invention, what I claim as new is:—

1. In a tie for railway rails, cushion blocks adapted to receive the base flanges of the rail, a wedge member underlying the cushion block, said wedge member having its enlarged portion provided with a bifurcation, and a threaded element upon the tie engaging between the walls provided by the bifurcation.

2. A tie for railway rails, said tie comprising a substantially U-shaped member, partitions for the member forming a central compartment, a plastic body within this compartment, rail receiving cushion blocks adjacent the partitions and within the U-shaped tie, means for vertically adjusting these blocks, and means for retaining the rails upon the blocks and out of contact with the sides of the tie.

3. A tie for railway rails comprising a rectangular body member having an open top, partitions for this member forming a central compartment, a plastic body within this compartment, the sides of the body between the partitions and the ends of the body being cut away, rail receiving cushion blocks positioned adjacent the compartment, wedge members for vertically adjusting the cushion blocks, means for securing the wedge members, and means for securing the rails upon the cushion blocks and out of contact with the sides of the tie.

4. A tie for railway rails comprising a rectangular shell having an open top, partitions within the shell forming a central compartment, a plastic body within this compartment, the sides of the shell adjacent the partitions being cut away, rail receiving cushion blocks within the shell adjacent the partitions, said blocks being provided with transverse depressions adapted to serve as seats for the rails, the under face of the cushion blocks being inclined, wedge members connected with the base of the shell underlying said block, the sides of the tie member being provided with rail retaining members, each of said members being provided with an overlying lip adapted to contact with the base flanges of the rails and having their bodies provided with longitudinal openings whereby the members may be slid toward or away from each other, and means for removably securing the members upon the sides of the ties.

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

WILLIAM T. SHIMP.

Witnesses:

ALBERT H. THEM,

CECILIA B. SNYDER.