

W. A. O. JONES.
 RAILWAY TIE.
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Patented Aug. 5, 1913.

1,069,142.

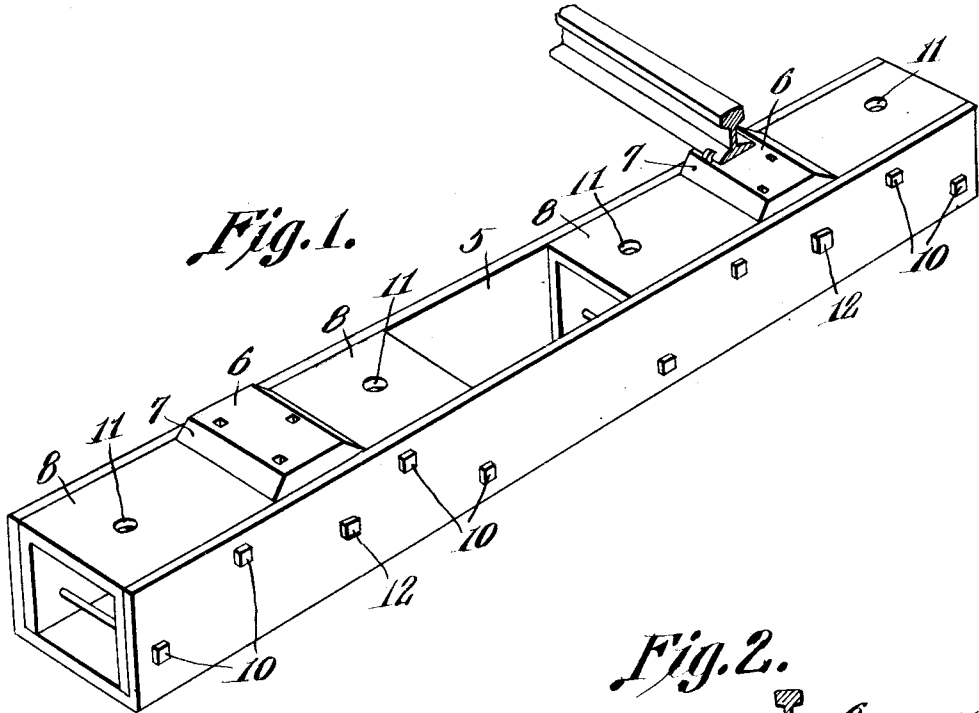


Fig. 1.

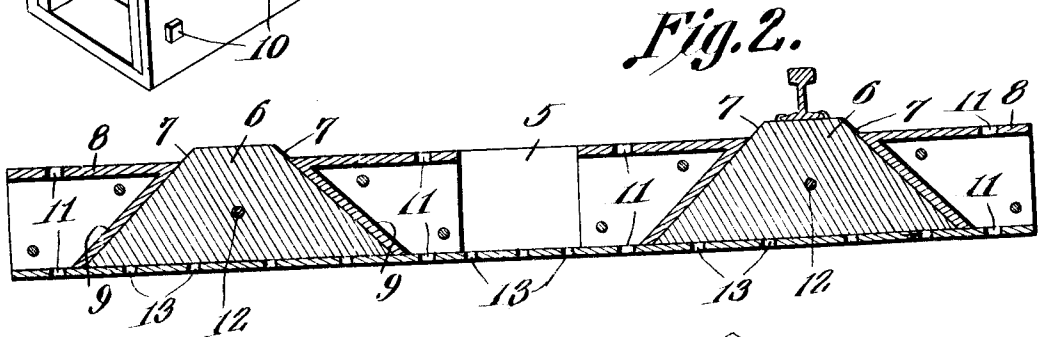


Fig. 2.

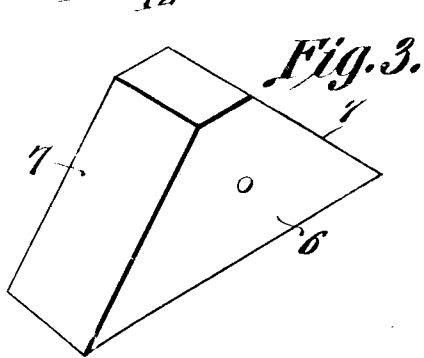


Fig. 3.

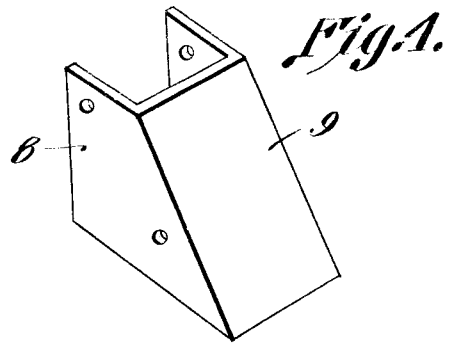


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WYATT A. O. JONES, OF BENTONVILLE, ARKANSAS, ASSIGNOR OF ONE-HALF TO J. A. MILLIGAN.

RAILWAY-TIE.

1,069,142.

Specification of Letters Patent.

Patented Aug. 5, 1913.

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To all whom it may concern:

Be it known that I, WYATT A. O. JONES, a citizen of the United States, residing at Bentonville, in the county of Benton and State of Arkansas, have invented a new and useful Railway-Tie, of which the following is a specification.

The present invention relates to railway ties, and particularly to metallic ties.

It is the object of the present invention to provide a novel and improved metallic railway tie of simple, substantial and inexpensive construction, and which shall embody the features of the ordinary wooden tie as to cushioning, insulation, and attachment of the rails thereto by means of the usual spikes.

To the above and other ends, the present 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 preferred embodiment of the invention has been illustrated in the accompanying drawing, wherein like reference characters have been employed to denote corresponding parts and wherein:—

Figure 1 is a perspective view of a tie constructed in accordance with the present invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a perspective view of one of the rail cushions. Fig. 4 is perspective view of one of the keepers for the cushions.

Referring specifically to the drawing, the rail proper 5 is constructed of channel iron, steel or other material of proper dimensions.

A pair of cushions 6 of wood or other material fit or rest snugly in the channel 5 and have their ends inclined as designated by the numeral 7, the said cushions protruding slightly above the channel and their upper faces being designed for the attachment of the rails. The rails are adapted to seat on the cushions 6 and may be secured thereon by means of the usual spikes, so that the rails are cushioned and are insulated from the channel, as is essential.

A pair of keepers 8 are provided for each cushion, the keepers being constructed in the form of channels and inverted so that their flanges fit within the flanges of and seat on

the bottom of the channel 5, with the backs of the keepers flush with the edges of the channel, the keepers having their respective ends inclined and solid as designated by the numeral 9, to abut against the inclined ends of the cushions.

Bolts or other securing members 10 are fastened through the flanges of the keepers and the channel in order to retain the keepers in position, and as the keepers are secured in position, the cushions will be locked against removal or displacement.

In practice, the adjoining ends of the inner keepers are spaced apart in order that suitable ballast may be inserted into the channel to fill up the intervening space between the said keepers and to fill up the chambers provided within the said keepers, which are hollow.

Thus, a railway tie has been provided in accordance with the objects aimed at, the cushions obviating the pounding or jarring incident to railways, which is very destructive to the rolling stock. Ordinarily, in metallic ties, the rails are secured directly on the ties, so that proper cushioning is not provided for, and further, the rails are not properly insulated, as is necessary in most cases. The cushions may be replaced from time to time when they have become worn, it being noted that the rails may be secured to the cushions with the use of the customary spikes. The cushions may therefore be readily replaced without disturbing the tie and without necessitating any great expense. The keepers and channel 5 may also be provided with apertures 11 for the reception of bolts, spikes, or other securing members to attach the tie to bridge timbers or the like. It is also preferable to pass bolts 12 through the flanges of the channel 5 and through the cushions in order to assist in retaining the cushions in position, and the bottom of the channel is preferably provided with apertures or orifices 13 to permit of the drainage of the tie.

It is preferable to provide the bolts with slit cotter pin for retaining them in position, so that the bolts will not be liable to be jarred loose due to the motion of the trains.

It will also be manifest that the employment of the present tie will eliminate, to a great extent, the maintenance expenses, and the use of a large force of section

hands, as is necessary with the wooden ties now in use. The life of the ordinary tie is from five to seven years, while the life of the herein described metallic tie will be considerably longer, it also being possible to utilize the metallic tie after it has been put out of commission, for other purposes, so that the same will not be a dead loss, as is the case with wooden ties.

10 Having thus described the invention what is claimed as new is:—

1. A railway tie embodying a channel, rail cushions fitting therein, a pair of channel shaped keepers for each cushion to lock the cushion in position, the flanges of the keepers fitting into the flanges of and seating on the bottom of the channel and the backs of the keepers being flush with the edges of the channel, and means for securing the keepers in position.

2. A railway tie embodying a channel, rail cushions fitting therein and having their ends inclined, a pair of inverted chan-

nel shaped keepers for each cushion, the keepers having their flanges fitting in the flanges of the said channel and having their respective ends inclined to abut against the inclined ends of the cushions, and means for securing the keepers in position. 25

3. A railway tie embodying a channel, rail cushions fitting therein and having their ends inclined, a pair of inverted channel shaped keepers for each cushion, the keepers having their flanges fitting in the flanges of the channel and having their respective ends inclined and solid to abut against the inclined ends of the cushion, and securing members passing through the flanges of the keepers and said channel. 35

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses. 40

WYATT A. O. JONES.

Witnesses:

SAM BEASLEY,
N. S. HENRY.

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