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J. S. BROWN

CONCRETE TIE

Filed Dec. 17, 1926

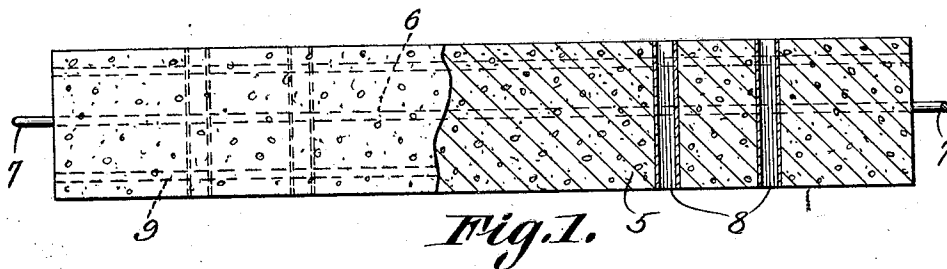
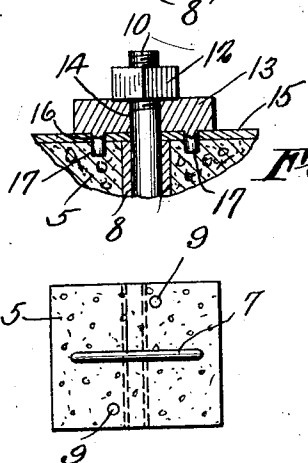


Fig. 3.

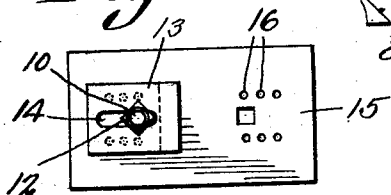
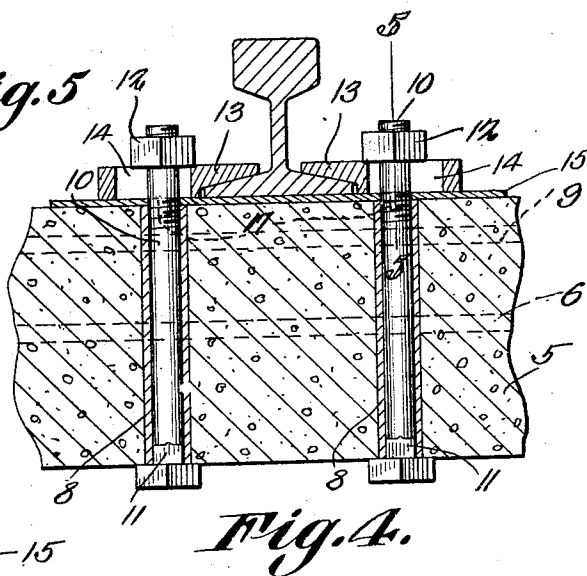


Fig. 4.



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CONCRETE TIE.

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The present invention relates to railway ties, and more particularly railway ties constructed of plastic material such as concrete or the like, the primary object of the invention being to provide a body portion which will be exceptionally strong and durable and one which will be reinforced throughout its entire length.

Another object of the invention is to extend the reinforcing rods passing through the body portion, beyond the ends of the body portion to provide grips whereby the tie may be handled with facility when the same is being removed or placed under the rails of a railway track.

A still further object of the invention is the provision of vertical tubes substantially square in cross section, disposed within the body portion and arranged in spaced relation with each other to accommodate securing bolts whereby a rail may be secured to the tie.

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, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is a side elevational view partly in section, illustrating a tie constructed in accordance with the invention.

Figure 2 is a plan view thereof.

Figure 3 is an end elevational view of the tie.

Figure 4 is an enlarged fragmental sectional view illustrating the manner of securing a rail to a tie constructed in accordance with the invention.

Figure 5 is a fragmental sectional view illustrating the pins formed on the securing members, on line 5—5 of Fig. 4.

Figure 6 is a plan view illustrating a securing member and plate.

Referring to the drawing in detail, the body portion of the tie is indicated generally by the reference character 5 and is formed of concrete or other suitable plastic material.

The reference character 6 indicates a re-

inforcing rod, which is embedded in the body portion of the tie, the same being shown as disposed intermediate the upper and lower surfaces of the tie and spaced from the side surfaces thereof.

As shown by Figure 2 of the drawing, the reinforcing rod 6 is constructed in such a way as to provide loops 7 extended beyond the ends of the tie which loops provide hand-holds so that the tie may be lifted and moved with facility, it being understood that because of these loops, a suitable hook or clamping member may be secured to the tie to move the tie in positioning or removing the same from under the rails of a railway track.

Extending vertically through the tie and disposed intermediate the side surfaces of the tie are tubular members 8, which tubular members are square in cross section to increase the reinforcing qualities thereof and at the same time provide a lock for the bolts that extend therethrough and which are employed for holding the rail clamps in position.

Extending longitudinally through the tie and arranged adjacent to the upper surfaces of the tie at a point near the center of the tie, are reinforcing rods 9 that have their ends flush with the ends of the tie.

Positioned within the tubular members 8 are bolts 10 which have square portions 11 adapted to fit within the square tubes to prevent rotation of the bolts when the nuts which are indicated at 12, are positioned on the bolts to hold the securing members 13 in position.

These fastening members 13 are provided with elongated openings 14 through which the bolts 10 extend so that an adjustment of the fastening members 13 towards and away from the rail secured thereby, may be had.

Used in conjunction with the fastening members 13 is a plate 15 provided with openings to receive the bolts 10, and as shown, a plurality of openings 16 are provided adjacent to the bolt openings of the plate, which openings 16 are provided to receive the depending pins 17 formed on the fastening members 13, with the result that when an adjustment of the fastening members 13 is made, the fastening members 13 will be held against movement, by the pins 17.

From the foregoing it will be seen that due to this construction, a rail may be sup-

ported on a plate which in turn rests on a tie formed of plastic material, the fastening means employed in connection with the plate being such that an adjustment may be
5 had.

It will further be seen that the tie is thoroughly reinforced throughout its length, and due to the fact that the loops 7 extend beyond the ends of the tie, the tie may be
10 readily moved from place to place without danger of the hooks or clamping devices commonly used in removing and positioning railway ties, from injuring the body portion of the tie.

I claim:—

A railway rail tie including a body portion, a plate positioned on the body portion and having bolt openings and rows of spaced openings disposed on opposite sides of the bolt openings, adjustable fastening members
15 having elongated openings and having pins adapted to be positioned in the spaced openings to hold the fastening members in various positions of adjustment. 20

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature. 25

JAMES S. BROWN.