Sept. 23, 1952 W. W. BARTLETT 2,611,545

RAILROAD TIE

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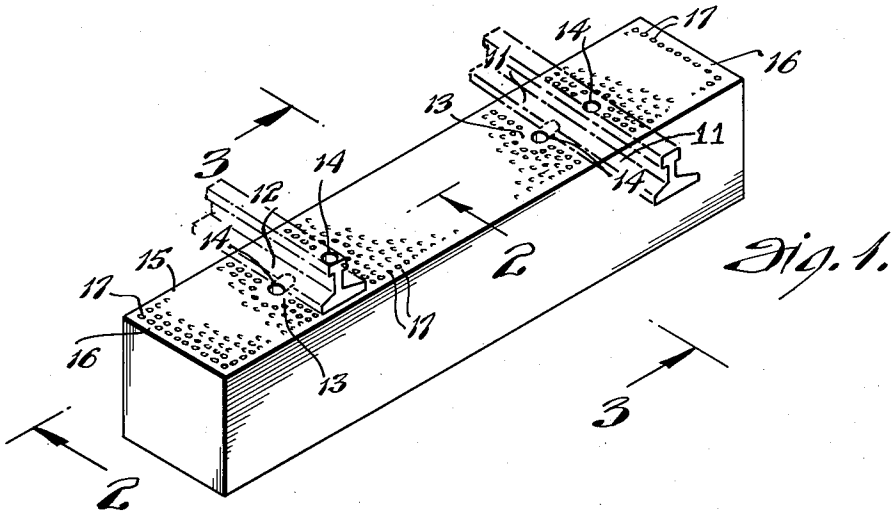


Fig. 1.

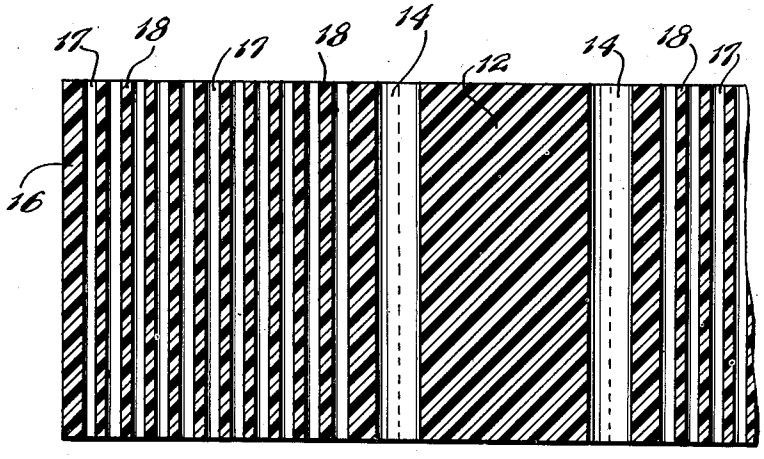


Fig. 2.

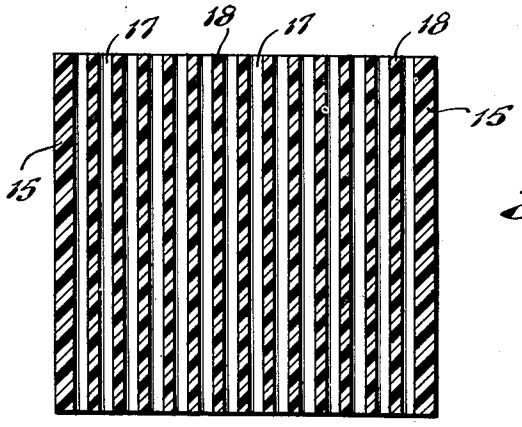


Fig. 3.

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RAILROAD TIE

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1 Claim. (Cl. 238—84)

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This invention relates to a molded or cast railroad tie.

The invention has for an object to provide a railroad tie which affords the required bearing support for the rails and which is constructed and arranged to reduce the weight thereof.

A further object of the invention is to provide a railroad tie fashioned of suitable material which is resistant to wearing conditions and which is formed with solid spaced portions on which the rails are supported and with other portions of said tie being of cellular formation for reducing the weight and cost of the tie.

Another object of the invention is to provide a railroad tie having solid spaced portions on which the rails are supported and solid side and end edge portions with the body of the tie within the solid edge portions and between the solid spaced portions being of cellular formation.

Still another object of the invention is to provide a tie of said character in which the solid spaced portions are formed with openings extending through the tie for receiving fastening means for securing the rails thereto.

With the foregoing and other objects in view, reference is now made to the following specification and accompanying drawings in which the preferred embodiment of the invention is illustrated.

In the drawings:

Fig. 1 is a perspective view of a railroad tie constructed in accordance with the invention.

Fig. 2 is an enlarged fragmentary vertical sectional view taken approximately on line 2—2 of Fig. 1.

Fig. 3 is an enlarged horizontal sectional view taken approximately on line 3—3 of Fig. 1.

Referring to the drawings by characters of reference, the railroad tie indicated generally by the reference character 10 is molded of suitable material preferably of synthetic plastic such as cellulose derivative compounds, phenol formaldehyde resin compounds and the like so as to provide a tie which possesses the required bearing support for the rails and which is resistant to wearing conditions, deterioration by insects, and which is non-inflammable.

The tie is of general rectangular formation and includes solid portions 11 and 12 which are spaced apart in accordance with the spacing of the railroad rails and which are of a width somewhat wider than the bottom flange of the rails. The solid portions 11 and 12 are widened centrally thereof on opposite sides as at 13 through which extend openings 14 for receiving bolts or

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other fastening means for securing the rails to the tie. The tie is also formed with solid peripheral side portions 15 extending longitudinally of the tie the full length thereof and solid peripheral end portions 16 extending transversely across the ends of the tie.

The body of the tie within the solid side and end portions and between the solid spaced portions is of cellular formation to thereby reduce the weight of the tie and reduce the cost of manufacture thereof. The cellular formation preferably consists of closely spaced openings 17 extending through the top and bottom faces of the tie and which are of a diameter substantially equal to the thickness of the walls 18 between adjacent openings. The solid peripheral side and end portions 15 and 16 are of a thickness slightly greater than the thickness of the walls 18 between the openings 17 in order to form a strong peripheral wall bounding the said openings.

What is claimed is:

In a railroad tie, a tie body having a thickness substantially equal to that of the width thereof and having longitudinally spaced solid portions extending transversely of the tie and adapted to receive the railroad rails thereon, said solid portions having openings adjacent the side edges thereof extending through the tie for receiving fastening means for securing the rails on the tie, and said tie body having solid peripheral portions extending longitudinally of the opposite side edges and across the end edges with the remainder of the body bounded by said solid portions and between said longitudinally spaced portions being of cellular formation consisting of closely spaced openings extending through the top and bottom faces of the tie body with the diameters of the openings being substantially equal to the thickness of the walls between adjacent openings.

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