No. 854,155. PATENTED MAY 21, 1907.

D. P. DUNKLE & J. N. WHETSTONE.

RAILROAD TIE.

APPLICATION FILED FEB. 8, 1907.

Fig. 1.

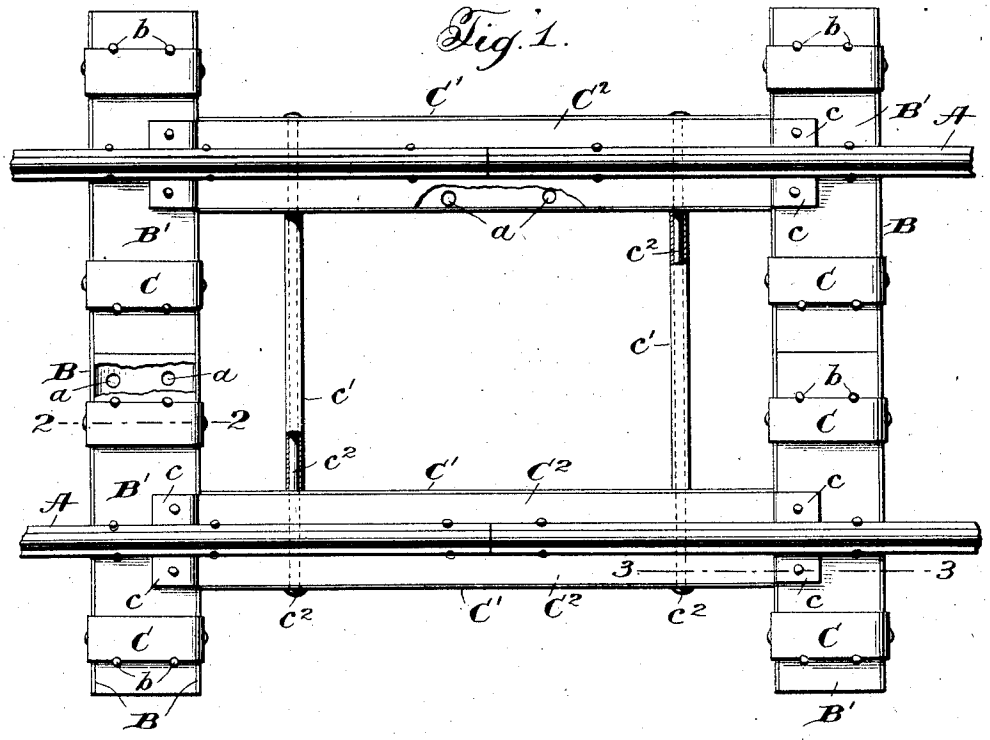


Fig. 2.

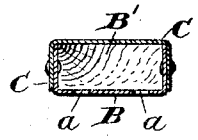
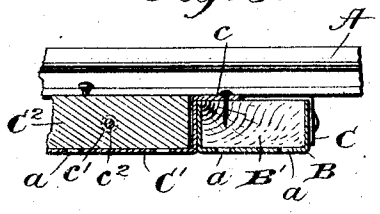


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

DAVID P. DUNKLE AND JASPER N. WHETSTONE, OF KEOKUK, IOWA.

RAILROAD-TIE.

No. 854,155. Specification of Letters Patent. Patented May 21, 1907.

Application filed February 8, 1907. Serial No. 356,355.

To all whom it may concern:

Be it known that we, DAVID P. DUNKLE and JASPER N. WHETSTONE, citizens of the United States, residing at 1515 Blondeau street and at 1402 Main street, respectively, Keokuk, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in railroad ties, and the object of the invention is the provision of a tie which will prevent sagging of the rails at the joints thereof.

A further object of the invention is the provision of ties arranged to extend longitudinally of the rails to prevent sagging thereof at the joints, which ties are rigidly connected to prevent spreading of the rails.

A further object of the invention is the provision of improved means for reinforcing the wooden ties commonly in use, and preserving the same from decay.

Other objects of the invention will be apparent from the detailed description hereinafter, when read in connection with the accompanying drawings forming a part hereof, wherein a preferable embodiment of my invention is shown and wherein like numerals of reference refer to similar parts in the several views.

In the drawings, Figure 1 is a plan view of a section of railroad track equipped with our improved ties. Fig. 2 is a cross section on line 2—2 of Fig. 1. Fig. 3 is a cross section on line 3—3 of Fig. 1.

Referring now more particularly to the drawings, A—A indicate the rails, which are supported upon cross ties placed at suitable intervals and longitudinal ties interposed between the cross ties.

The cross ties each comprise an elongated metallic trough B, which is preferably formed of sheet steel, and in which is positioned the usual wooden tie B′, to which the bases of the rails A—A are adapted to be spiked in the usual manner. The wooden ties B′ are secured within the trough members B by means of U-shaped clips C, which are preferably stamped from sheet steel, and which are secured across the tops of the trough members, the arms of said clip being arranged to overlie the sides of said trough members and being riveted thereto. The wooden ties B are held against longitudinal movement in the trough members B′ by means of spikes *b*, which are driven therein and the heads of which engage opposite edges of the clips C.

In the form of our invention disclosed in the drawings we have shown the trough members B′ as each provided with two wooden ties B, which is a very economical structure, as it permits of the utilization of the old or worn ties which have hitherto had to be discarded. It will be obvious, however, that a single tie may be secured within the trough members if desired. The longitudinal ties each comprise an elongated trough member C′ which is preferably stamped from sheet steel, and in which is secured a wooden tie C^2. The ends of the trough members C′ are closed and are provided with laterally projecting flanges *c* extending from the tops thereof which are designed to overlie the tops of the ties B′ secured within the trough members B, and are secured thereto by spikes passing therethrough and engaging said ties.

Interposed between the adjacent faces of the longitudinal trough members C′ are sleeves *c′*, through which pass tie rods c^2, the opposite ends of which pass through the side walls of the trough members C′ and the ties C^2, seated therein. The tie rods c^2 are each provided at one end with a suitable head and at the other end with a nut or other fastening device, so that the sides of the trough members C′ may be drawn tightly into engagement with the ends of the sleeves *c′* and the longitudinal ties and the rails carried thereby may be maintained at the proper distance apart, thereby preventing any spreading of the rails.

The bottoms of the trough members B and C′ are each provided with a plurality of apertures *a* therein to permit the escape of any water which may accumulate in said trough. It will be seen from this construction that the metallic troughs not only serve to strengthen and reinforce the wooden ties, but also to protect them from injury and decay.

We do not desire to limit ourselves to the precise form and construction shown in the drawings, as it is obvious that many minor changes may be made therefrom without departing from the spirit of the invention, as defined in the appended claims.

Claims.

1. In a railway track structure, a pair of longitudinal ties, a plurality of sleeves interposed between said ties, and tie rods con-

necting said ties and passing through said sleeves.

2. In a railway track structure, separated ties each comprising a metallic trough, a wooden tie seated therein, and tie rods connecting said ties, the extremities of which pass through the sides of the metallic troughs and the ties seated therein.

3. In a railway track structure, a pair of cross ties, a pair of longitudinal ties interposed between said cross ties and having their ends secured thereto, a plurality of sleeves interposed between the adjacent sides of the longitudinal ties, and tie rods connecting the longitudinal ties and passing through said sleeves.

4. In a railroad track structure, a pair of separated cross ties and longitudinal ties interposed therebetween, each of said longitudinal ties comprising a metallic trough having flanges extending from the ends thereof and overlying the cross ties and a wooden tie secured within said trough.

5. In a railroad track structure, a pair of cross ties each comprising a metallic trough and a wooden tie seated therein, and a pair of separated longitudinal ties interposed therebetween, each of said longitudinal ties comprising a metallic trough having flanges extending from the ends thereof, and overlying the cross ties and a wooden tie seated in said metallic trough, and tie rods connecting said longitudinal ties, the extremities of which pass through the sides of the metallic troughs and the ties seated therein.

6. In a railway track structure, separated ties therein, a plurality of sleeves interposed between the adjacent sides of said ties, and tie rods passing through said sleeves, the extremities of said tie rods passing through said ties.

In testimony whereof we affix our signatures in presence of two witnesses.

DAVID P. DUNKLE.
JASPER N. WHETSTONE.

Witnesses:
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