

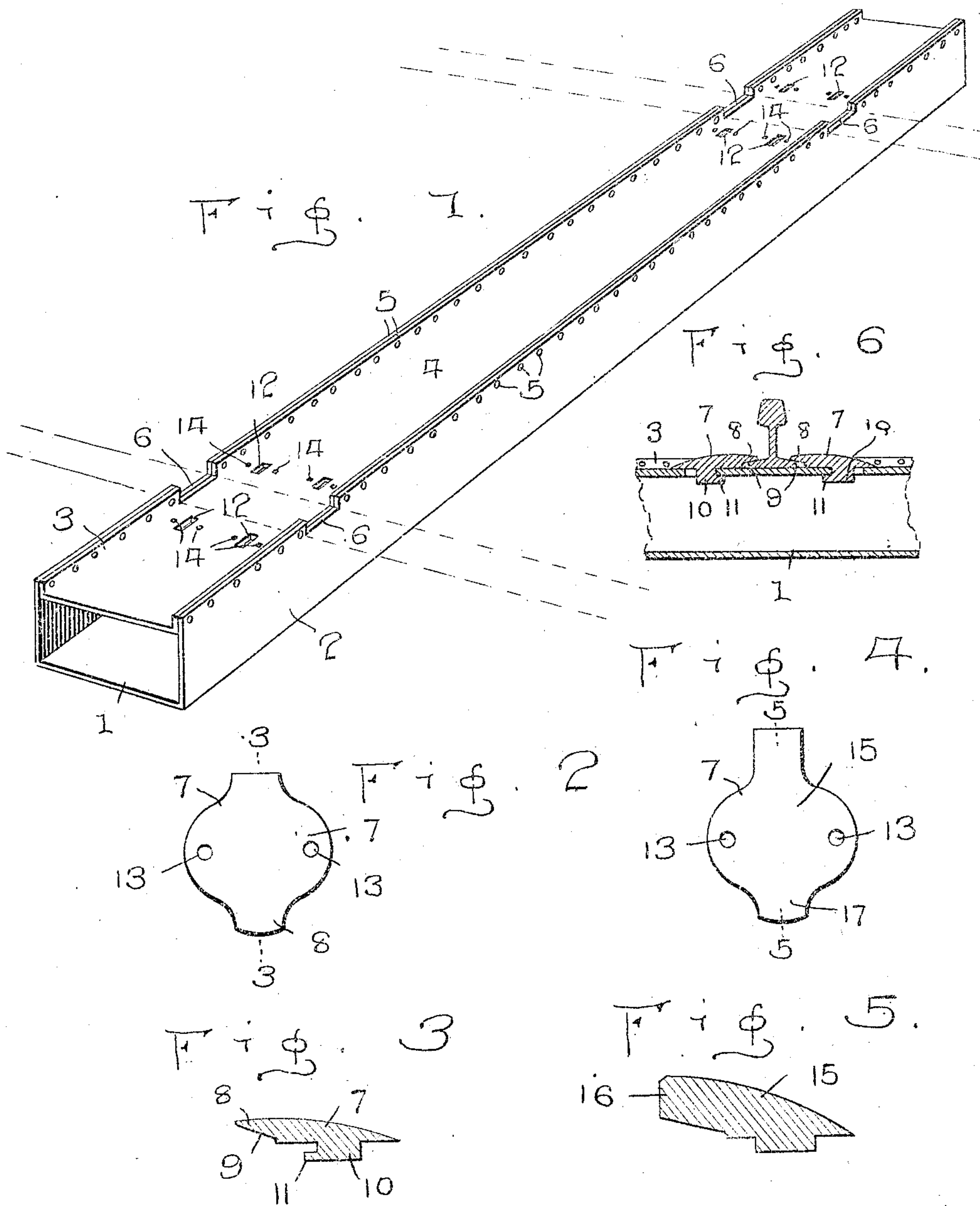
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L. A. DELLEA.

CROSS TIE.

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Inventor
L. A. Dellea

Witnesses

Thos. W. Riley
C. H. Hill

By

W. J. Fitzgerald & Co.
Attorneys

UNITED STATES PATENT OFFICE.

LOUIS A. DELLEA, OF GREAT BARRINGTON, MASSACHUSETTS.

CROSS-TIE.

No. 897,067.

Specification of Letters Patent.

Patented Aug. 25, 1908.

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To all whom it may concern:

Be it known that I, LOUIS A. DELLEA, a citizen of the United States, residing at Great Barrington, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Cross-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in cross ties and has relation more particularly to metallic cross ties.

It is an object of the invention to provide a novel device of this character which will prevent the rails secured thereto from spreading.

It is also an object of the invention to employ in combination with a tie of this character novel rail-fastening means.

It is also an object of the invention to provide a novel device of this character, which will be simple in construction, efficient and advantageous in practice and comparatively inexpensive to manufacture.

With the above and other objects in view, the invention consists in the details of construction and in the novel arrangement and combination of parts to be hereinafter referred to.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification, wherein like characters of reference denote corresponding parts in the several views, and in which,

Figure 1 is a view in perspective of a tie constructed according to the invention, showing in dotted lines the position of the rails supported thereby. Fig. 2 is a top plan view of a rail-securing means employed in conjunction with the tie. Fig. 3 is a sectional view taken on line 3—3, Fig. 2. Fig. 4 is a top plan view illustrating a fastening means to be employed in conjunction with the tie at a curve of the rail. Fig. 5 is a sectional view as seen on line 5—5, Fig. 4. Fig. 6 is a sectional view of Fig. 1 illustrating certain details of the invention, a rail being shown in applied position.

In the drawings, 1 denotes the base of the tie, which is of any desired length and width. This base 1 has arranged along its longitudinal edges, the upstanding flanges 2 of any desired height.

To the upper edge portion of the flanges 2 are secured the upstanding flanges 3 of a top plate 4. This attachment may be made as desired, but preferably through the medium of the rivets 5. By having the flanges 2 and 3 arranged as shown, forms an essential feature of the invention, as will be hereinafter pointed out.

The flanges 2 and 3 are provided adjacent each end with the alining notches 6, which form seats for the bases of the rails, as indicated by dotted lines in Fig. 1. It is to be observed that the bottom of each notch is flush with the main portion of the plate 4. By having the rails seated within the notches 6, they are effectually held against spreading. While the top plate assists in supporting the rails, it holds the flanges 2 from being displaced by the weight of the rails when a train is passing thereover. This plate also provides means for positioning the rail-fastening devices.

In ordinary rail fasteners, each consists of a plate 7 having a forwardly projecting tongue 8 adapted to bear against the upper surface of the flange of the rail. In order that this contact of the tongue with the flange may be effective, the under surface thereof is inclined, as shown at 9, Fig. 3.

Depending centrally from the under surface of the plate 8, is an extension 10, having at its lower edge a forwardly projecting lug 11. This extension 10 is insertible through an elongated opening 12 in the top plate 4 of the tie. After the extension 10 is passed through the opening 12, the plate 7 is forced towards the rail. This movement causes the projection or lug 11 to pass beneath the forward edge portion of the opening 12. To hold the plate 7 in this position, it is provided adjacent each side with an opening 13, which registers with an opening 14 arranged on each side of the elongated opening 12. Through this registering opening suitable securing bolts are passed. By this arrangement, it will be seen that an effective track-

fastener is provided. It is to be understood that a fastening plate 7 is arranged at either side of the rail.

In Fig. 1 there are shown two openings 12 at either side of the rail. This structure, however, is employed only to effect a joint of the rails or when the meeting ends of the rails are positioned above the tie. It is believed necessary to make illustration of only one opening 12 at either side of the rail, as this is an obvious expedient.

In Figs. 4 and 5 is shown a modified fastening plate which is to be used on outside of curves and serves the purpose of fastener and brace and is applied to the tie in the same manner as has been referred to in reference to plate 8 except that the extension on the base of the fastener completely fills the opening in the tie. This plate 15 has its tongue 16 of such thickness as to bear against the web of the rail its entire height and to contact partly with the under surface of the head of the rail.

It is thought that the operation of the invention is clearly apparent without the necessity of a specific recitation thereof. It may be well to further add, however, that by having the tie hollow, as disclosed, it permits a ready drainage of any water that might accumulate between the track-ways. It also permits a coating of the inner surface of the

tie as well as the outer surface thereof. This greatly adds to the life of the tie.

I claim:

1. In a device of the class described, the combination with a base having upstanding flanges along its longitudinal edges, a top plate positioned between the flanges, said top plate having upstanding flanges secured to the flanges of the base, said flanges of the top plate and of the base being provided with alining notches, the base of said notches being flush with the upper face of the top plate.

2. In a device of the class described, the combination with a base having upstanding flanges along its longitudinal edges, a top plate positioned between the flanges, said top plate having upstanding flanges secured to the flanges of the base, said flanges of the top plate and of the base being provided with alining notches, the base of said notches being flush with the upper face of the top plate and means carried by the top plate adjacent the notches of the flanges for the reception of track-fastening means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS A. DELLEA.

Witnesses:

J. L. MIGNEREY,
F. H. TURNER.