E. DAVIS.

COMBINATION TIE AND RAIL FASTENER.

APPLICATION FILED NOV. 25, 1911.

1,037,600.

Patented Sept. 3, 1912.

2 SHEETS—SHEET 1.

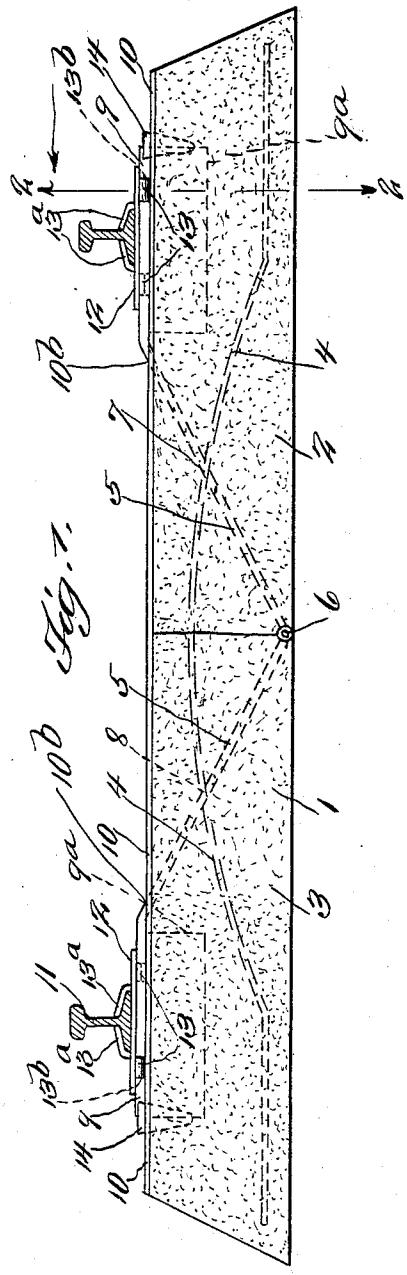

Fig. 1.

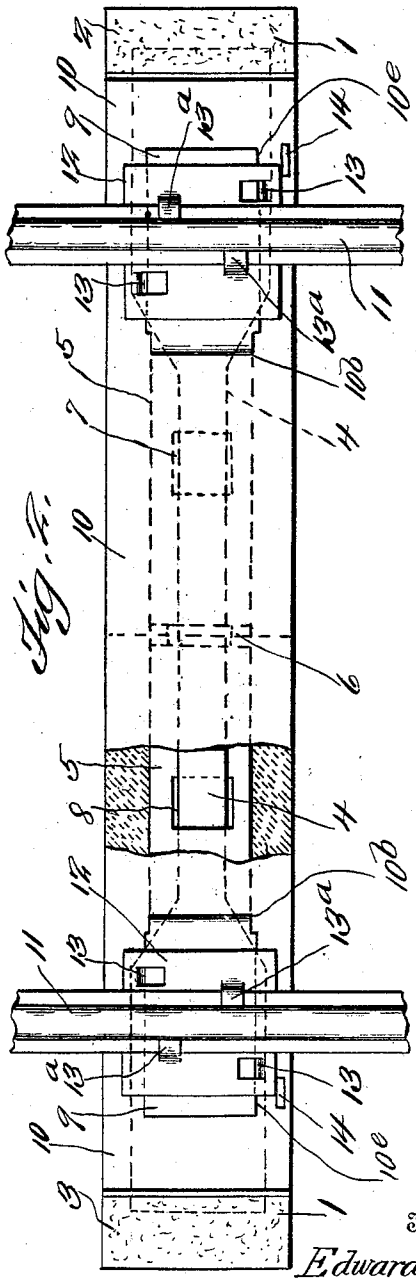

Fig. 2.

Witnesses

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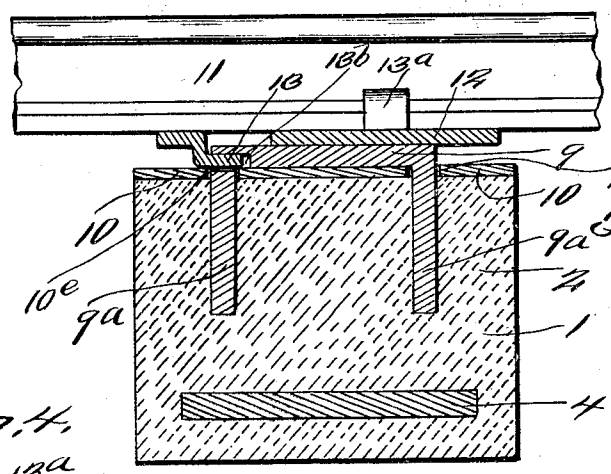


Fig. 3.

Fig. 4.

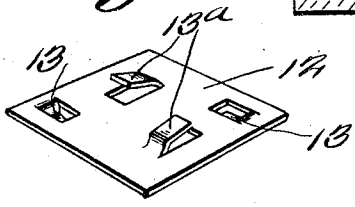


Fig. 5.

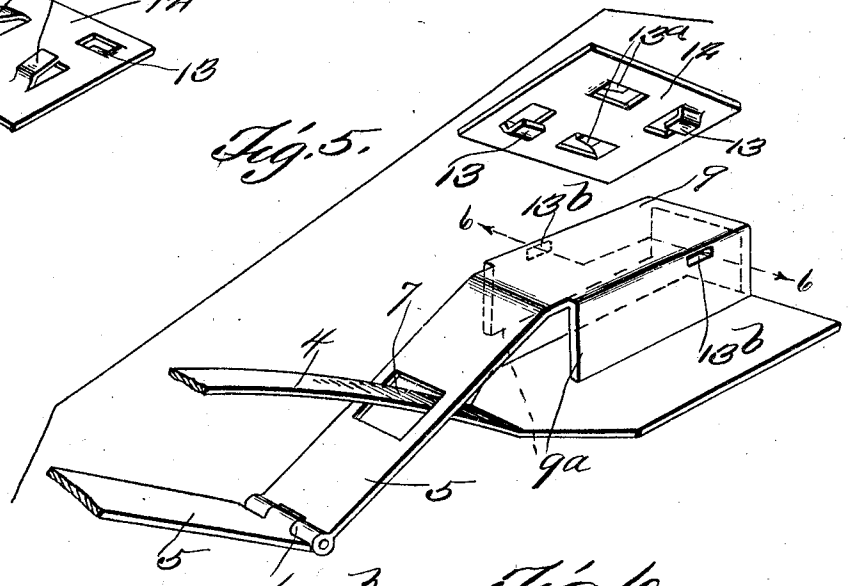
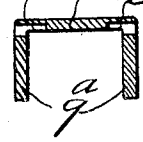


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD DAVIS, OF URBANA, ILLINOIS.

COMBINATION TIE AND RAIL-FASTENER.

1,037,600. Specification of Letters Patent. Patented Sept. 3, 1912.

Application filed November 25, 1911. Serial No. 662,423.

To all whom it may concern:

Be it known that I, EDWARD DAVIS, a citizen of the United States, residing at Urbana, in the county of Champaign and State of Illinois, have invented a new and useful Combination Tie and Rail-Fastener; 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 a new and useful combination cement tie and rail fastener.

The principal object of the invention is the provision of a device of this nature, which is simple, efficient and practical, having means embedded in the tie and intersecting, so as to reinforce the tie. The tie is constructed of two cement members, which are reinforced with relation to one another, by said means.

One of the features of this improved combination cement tie and rail fastener is the clamping means on each end of the tie, which clamping means includes a member to which a half revolution may be imparted for clamping the rails to the tie.

The invention comprises further features and combinations of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings: Figure 1 is a view in elevation of the improved cement tie constructed in accordance with the invention. Fig. 2 is a plan view partly in section. Fig. 3 is a sectional view on line 2—2 of Fig. 1. Fig. 4 is a detail of one of the plates 12. Fig. 5 is a view in perspective, showing some of the detail parts of the combination tie and rail fastener. Fig. 6 is a sectional view on line 6—6 of one of the parts shown in Fig. 5.

Referring more especially to the drawings 1 designates a cement tie, which is constructed in two sections 2 and 3, which sections may be of any desired shape and proportions. Embedded in the sections, so as to reinforce them with relation to one another is a bowed spring member 4. Also embedded in the sections are two sheet metal members 5, hinged together as at 6, at the point where the sections of the tie adjoin. These members 5 intersect the spring member at two places 7 and 8. The free ends of the spring member 4 are arranged under the portions of the tie on which the rails rest, while the end plates 9 of the members 5 are above the free ends of the spring member 4. The end plates 9 are provided with downwardly extending flanges 9^a, which extend through slots 10^a of the plate 10 and into the cement of the sections 2 and 3. A plate 10 is provided, which rests upon the cement, of the tie and is held in position by the end plates 9 of the members 5. In order to permit the end plates 9 to hold the plate 10 in place, the plate 10 is provided with slots 10^b, which receive the members 5. Resting on the plate 10 are the rails 11, which are held in position by the plates 12. These plates 12 are provided with four clamping members 13, two of which engage the bases of the rails, while the other two engage the plate 10, so as to secure the rails in position. To cause the plates 12 to lock in engagement with the rails and the plate 10, it is necessary to impart a half revolution to the plates 12, thus causing the lugs 13^a to engage the rails and the plate 10, as above stated and shown in the drawings. To hold the plates 12 against movement the locking devices 14 are provided, which are embedded in the ends of the tie. These locking devices are so constructed and arranged so as to prevent movement of the plates 12 after being moved in their proper positions. The plates 12 are provided with lugs 13 to engage the openings 13^b of the flanges 9^a, as shown clearly in Fig. 3.

From the foregoing it will be noted that there has been produced a novel, efficient and simple combination cement tie and rail fastener and one which has been found to be practical.

The invention having been set forth, what is claimed as new and useful is:

In combination, a pair of cement body-sections, a bed plate on the top of the body-sections, a bowed spring member embedded in the sections for holding them together, the bed plate having slots, a pair of sheet metal members hinged together where the sections meet and partly embedded in the body-sections and extending through the slots of the bed plate, the sheet metal members having slots through which the bowed spring member extends, the sheet metal members terminating in horizontally arranged plate extensions having downwardly extending flanges penetrating the bed plate and into the cement of the body-sections, the flanges having openings, plates resting upon the plate extensions of the sheet metal members

and provided with lugs struck down therefrom to engage the openings of the flanges, the plates that rest upon the extensions having lugs struck up therefrom adapted to engage rails, and devices for locking the last mentioned plates in position.

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

EDWARD DAVIS.

Witnesses:
WM. B. WEBBER,
JOSEPH M. DIBBLE,
THOMAS J. ROTH.