

P. KRAFT.
CEMENT TIE INCLUDING A RAIL FASTENER
APPLICATION FILED FEB. 18, 1913.

Patented May 6, 1913.
2 SHEETS—SHEET 1.

1,061,187.

Fig. 1.

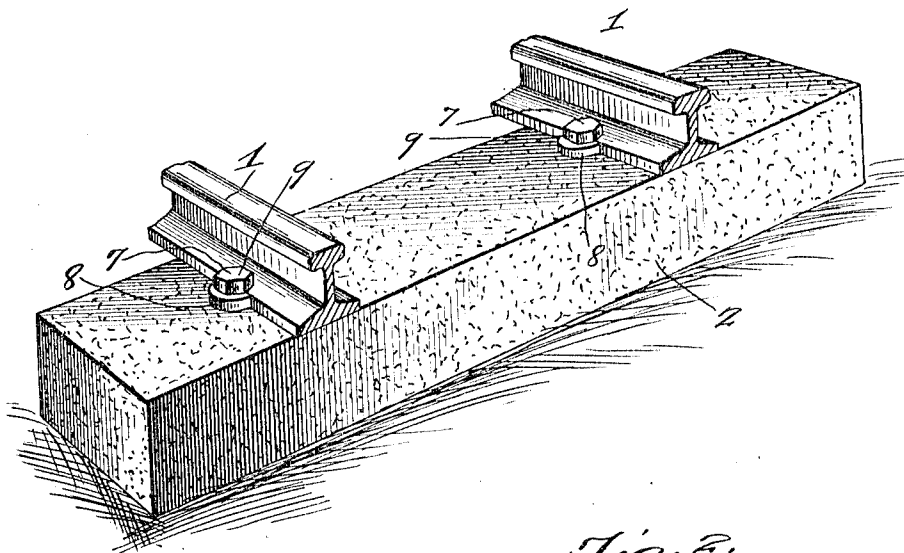
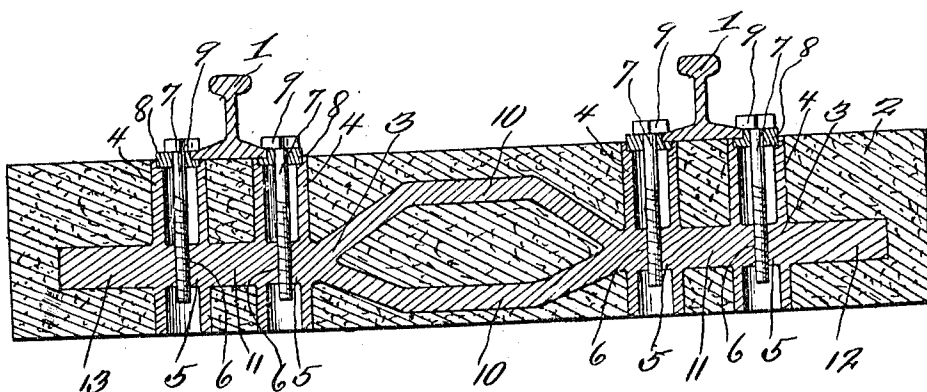


Fig. 2.



Witnesses

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Francis J. Forwood.

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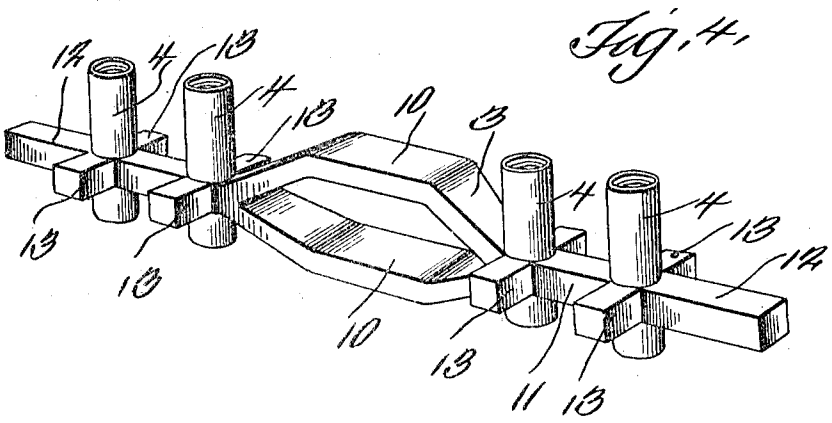
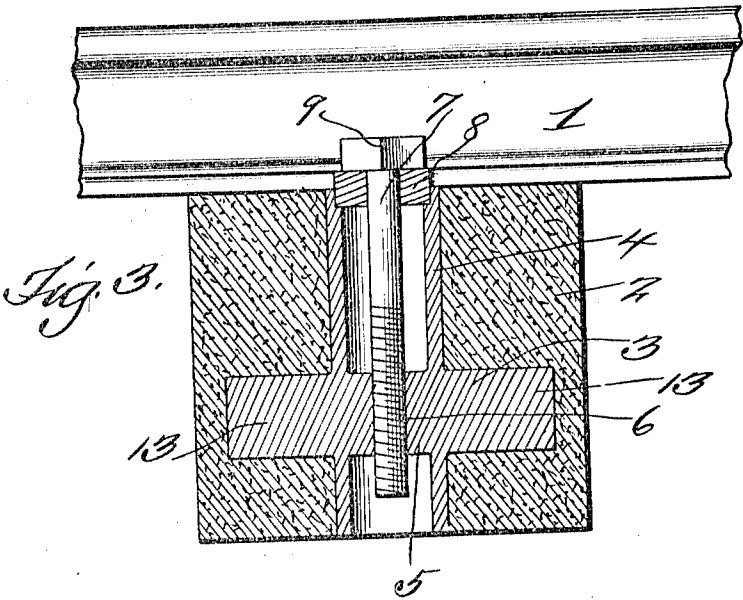
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Witnesses
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UNITED STATES PATENT OFFICE.

PAUL KRAFT, OF NEKOOSA, WISCONSIN.

CEMENT TIE INCLUDING A RAIL-FASTENER.

1,061,187.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that I, PAUL KRAFT, a citizen of the United States, residing at Nekoosa, in the county of Wood and State of Wisconsin, have invented a new and useful Cement Tie Including a 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 an improved cement rail tie, including means to receive rail fastening means, to hold the rail in place.

One of the most essential objects of the invention is to provide an improved casting embedded in a cement tie not only hold the cement together, but to receive rail fastening means, which means holds the rail in place.

In practical fields, the minor details of construction of the tie, may necessitate alterations, to which the patentee is entitled, provided the alterations fall within the scope of what is claimed.

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

In the drawings:—Figure 1 is a view in perspective of the improved cement rail tie, showing a rail fastened thereto. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the casting, prior to the same being molded or embedded in the cement tie.

Referring more particularly to the drawings, 1 designates the rails, while 2 denotes the cement tie having embedded or molded therein a casting 3. The casting 3 comprises at each end, a pair of tubular members 4, on the interior of which cross pieces 5 are provided. These cross pieces or bars are provided with threaded openings 6 to receive the threaded bolts 7, which also pass through cap plates 8, which it within the upper ends of the tubular member. These cap plates are of a shape to fit the opposite edges of the base of the rail, so that the upper surfaces of the cap plate are even with the upper surfaces of the base of the rail, whereby the heads 9 of the bolts may engage closely therewith.

Extending from one pair of tubular members to the other pair is an integral connect-

ing tie bar 10. The two pairs of tubular members are connected in this manner, so that they may be held spaced apart the required distance, while the cement body is being cast or formed about the casting. In practice, it has been found that owing to the casting being embedded on the interior of the cement, there is no chance of the metal becoming hot and expanding and contracting owing to the weather. In other words, the cement protects the metallic casting against the rays of the sun. Each tubular member of each pair is connected by a transverse bar 11, and projecting from each end tubular member is an extension 12, while projecting laterally of the tubular member are extensions 13.

From the foregoing it is to be ascertained that there has been devised a novel, simple and inexpensive construction of cement rail tie including rail fastening means, and one which has been found desirable and practical. In using this improved cement rail tie, the cracked stones and the like of the road bed fill the lower ends of the tubular members, and in this manner the tubular members perform an additional function, namely, to prevent the tie from slipping.

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

1. A cement railway tie having a metallic frame embedded therein, said frame being composed of a pair of tubular members at each end, each pair of tubular members being connected by integral reinforcing tie bars, each tubular member of each pair being intersected by a bar, one of each pair of tubular members having an extension in alignment with the tie, said tubular members having interior cross pieces having openings to receive fastening means for fastening a rail to the tie.

2. A cement railway tie having a metallic frame embedded therein, said frame being composed of a pair of tubular members at each end, each pair of tubular members being connected by integral reinforcing tie bars, each tubular member of each pair being intersected by a bar extending longitudinally of the tie, one of each pair of tubular members having an extension in alignment with the tie, said tubular members having interior cross pieces having openings to receive fastening means for fastening a rail to the tie, said tubular members having in



their upper ends cap plates seated therein through which said rail fastening means passes, said cap plates conforming to the opposite edges of a base of a rail, and lateral projections forming a part of said tubular members and extending transversely of the tie.

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

PAUL KRAFT.

Witnesses:

JOHN ZURFLUH,
JACOB D. HARRING.