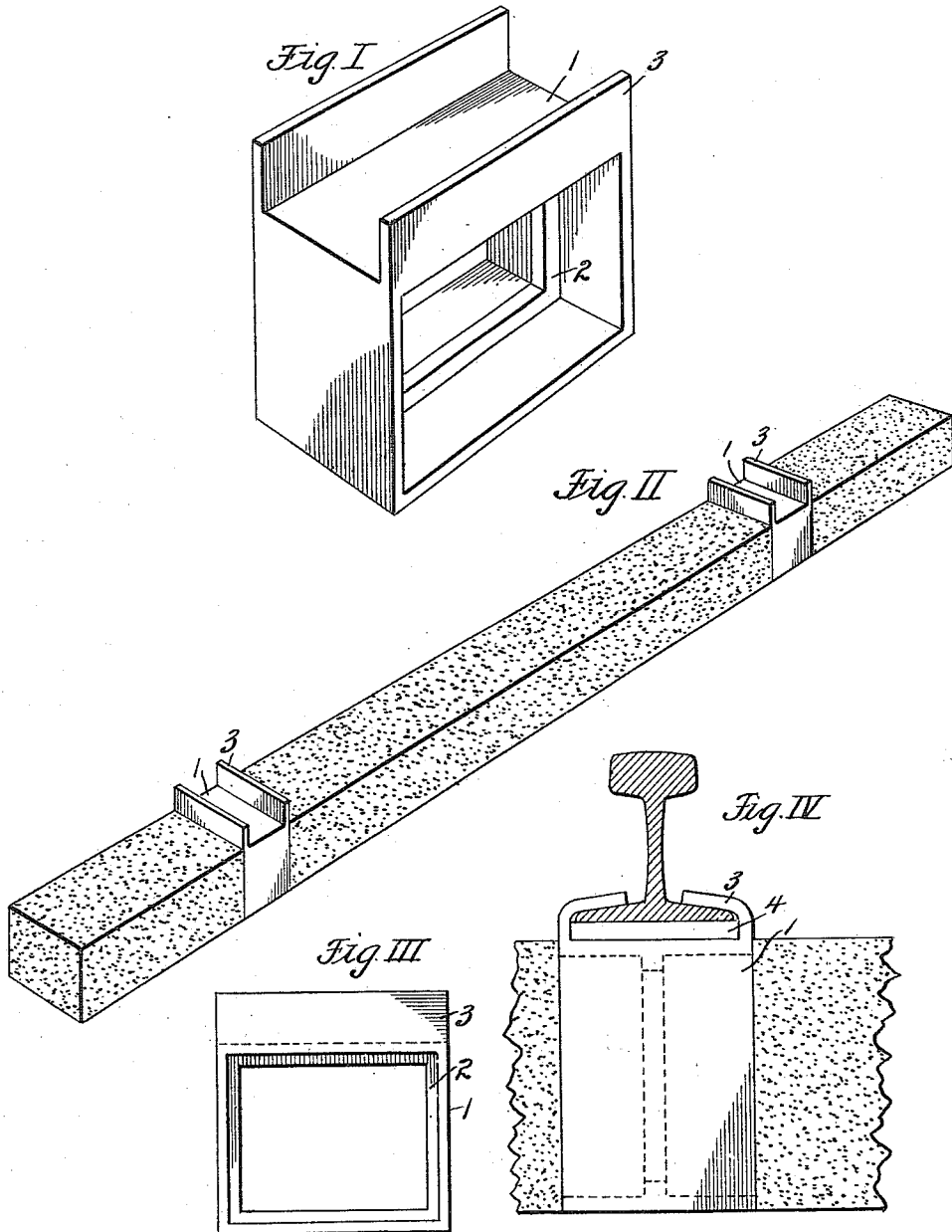


J. S. WARRICK.
COLLAR FOR CONCRETE RAILWAY TIES.
APPLICATION FILED MAR. 2, 1910.

979,615.

Patented Dec. 27, 1910.



WITNESSES:

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COLLAR FOR CONCRETE RAILWAY-TIES.

979,615.

Specification of Letters Patent.

Patented Dec. 27, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH S. WARRICK, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Collars for Concrete Railway-Ties; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in collars for concrete railway ties, and has for its object to provide a device of that class which may be securely and permanently fixed on a concrete tie and is adapted for receiving and permanently retaining a railway rail. In accomplishing this object I have provided the improved details of structure hereinafter described and claimed, the preferred form of which is illustrated in the accompanying drawings, in which:—

Figure I is a perspective view of a collar constructed according to my invention. Fig. II is a perspective view of a concrete cross tie equipped with two of my improved collars. Fig. III is a side view of the collar. Fig. IV is an end view of one of the collars applied to a cross-tie and illustrating the mounting of a rail therein.

Before describing the construction of my collar, I will state that it is preferably formed of high carbon steel and is cast in a suitable mold, so as to fit a cross-tie of desired dimensions; also that the collar and cross-tie are united by placing the collars in the tie mold and pouring the concrete there-through, so that when the tie is hardened the connection will be permanent and rigid.

Referring now to the construction of the collar:—1 designates the collar body which is cast to correspond to the cross section of the tie to which it is to be applied, the body being hollow, so that the tie may project therefrom, and provided with an interior rib 2 around which the tie material may seat in order that the collar may be anchored permanently and rigidly thereon.

Projecting upwardly from the side edges of the collar body and extending at right

angles to the collar channel, are the flanges 3, which are adapted to hold over the base of a rail as illustrated in Fig. IV.

In Fig. IV, which shows a rail set in the collar, 4 designates a creosoted block which is adapted to support the rail and is applied for the purpose of absorbing the shock or pound of the wheels when a train is passing over the collar.

With the ties in place and equipped with the collars which have been applied as before described, the rails are set in the collars and the collar flanges 3 bent over the rail base and welded thereto, by either the heat process, the "electric" process, or by means of a "thermit", or secured thereto by any other suitable means form a permanent connection.

In using the "thermit" welding process, the "thermit" after being ignited is placed upon the rail and collar parts respectively, and the intense heat communicated thereto by the "thermit" will form a weld.

While I prefer to use the creosoted blocks for the purpose mentioned, it is apparent that such use is not essential to my invention.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:—

1. A collar comprising a body portion, having an inwardly projecting rib and provided with means for attaching a rail thereto.

2. A collar comprising a body portion, having a rib extending throughout its inner periphery, and means on one of the outer faces of the body portion adapted for attaching a rail thereto.

3. A collar comprising a body portion, having an inwardly projecting rib, and having parallel flanges projecting from opposite sides of one of its outer faces.

4. The combination with a concrete cross tie, of a collar within which said tie has been formed when in a plastic state, and having an inner rib around which the tie material has set, the upper face of said collar being provided with flanges adapted for receiving a rail base, substantially as set forth.

5. The combination of a concrete cross tie, a collar set into said cross tie and having flanges on its upper face, and a rail seated

on the upper face of said collar, the collar flanges being folded over the rail base and welded thereto, substantially as set forth.

- 5 6. The combination of a concrete cross tie, a metal collar set into said tie and having flanges on its upper face, a wooden block seated on the upper face of said collar between said flanges, and a rail seated on said block, said flanges being folded over

the rail base and welded thereto, substan- 10
tially as set forth.

In testimony whereof I affix my signature
in presence of two witnesses.

JOSEPH S. WARRICK.

Witnesses:

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E. A. CAHILL.