C. F. SNYDER.

COMBINED RAILWAY TIE AND RAIL FASTENER.

APPLICATION FILED OCT. 28, 1907.

921,746. Patented May 18, 1909.

Fig. 1.

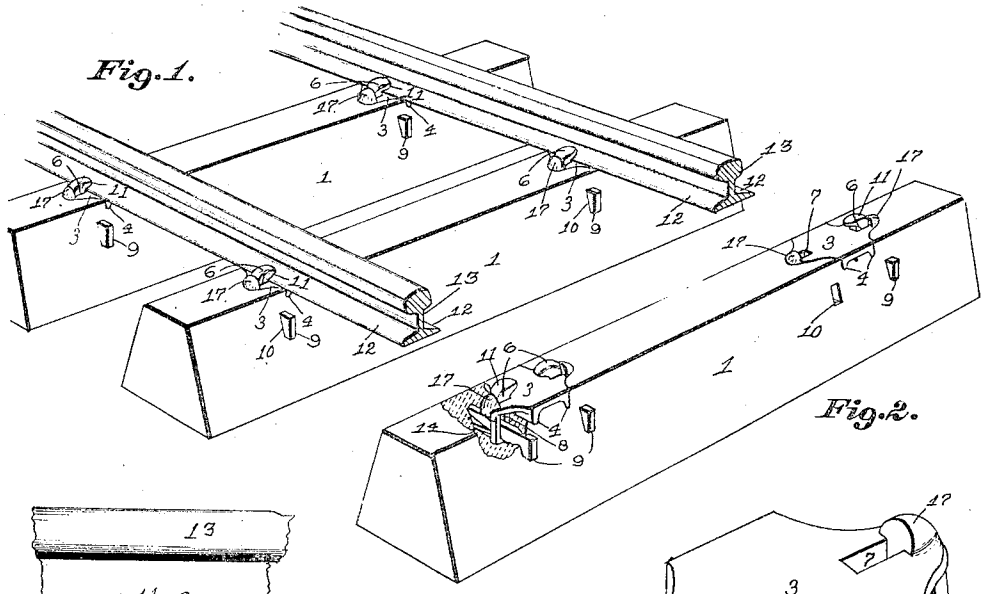


Fig. 2.

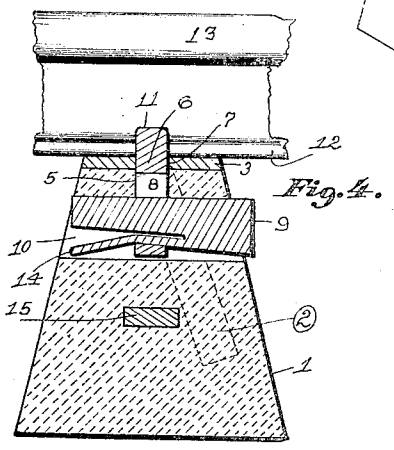


Fig. 4.

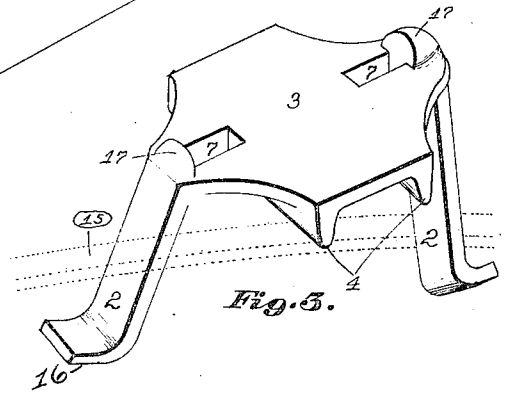


Fig. 3.

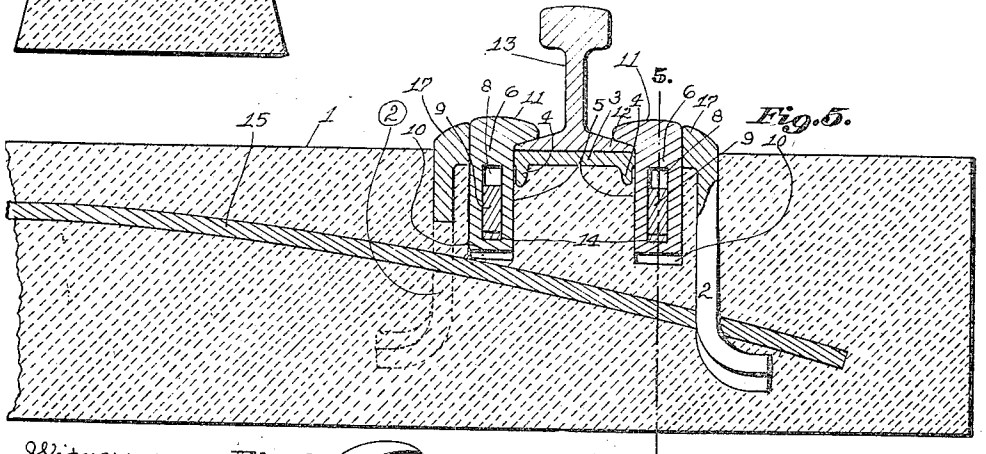


Fig. 5.

Witnesses.

Harry A. Rastetter.

Sylvia Boron

Fig. 6.

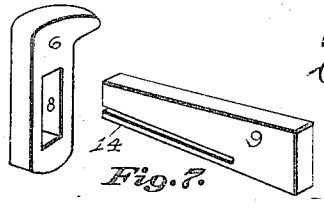


Fig. 7.

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UNITED STATES PATENT OFFICE.

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COMBINED RAILWAY-TIE AND RAIL-FASTENER.

No. 921,746. Specification of Letters Patent. Patented May 18, 1909.

Application filed October 28, 1907. Serial No. 399,556.

To all whom it may concern:

Be it known that I, CHARLES F. SNYDER, a citizen of the United States, residing at Massillon, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Combined Railway-Ties and Rail-Fasteners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals of reference marked thereon, in which—

Figure 1 is a perspective view showing two ties and the rails properly connected thereto. Fig. 2 is a perspective view of one tie, showing parts broken away. Fig. 3 is a view of the rail supporting plate. Fig. 4 is a transverse section on line 5—5, Fig. 5. Fig. 5 is a longitudinal section, showing a portion of the railway tie and a transverse section of the railway rail. Fig. 6 is a detached view of one of the railway rail holding dogs. Fig. 7 is a detached view of the locking key.

The present invention has relation to railway ties and fasteners and it consists in the novel arrangement and construction of parts hereinafter described and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the tie, which is formed substantially as shown in the drawings, and is preferably formed of cement. Within the body of each tie is embedded the holding arms 2, which holding arms are substantially of the form shown in the drawings, and of course are formed integral with the plate 3. Upon the bottom of the plate 3 are located the flanges 4, which flanges are set in the body of the tie as best illustrated in Fig. 5. The tie proper is provided with the sockets 5, into which sockets are placed the rail locking dogs 6, which rail locking dogs are also passed through the slots 7 formed in the plate 3. The locking dogs 6 are provided with the slots 8, which slots are for the purpose of receiving the keys 9, which keys are driven through the slots 8 formed in the rail locking dogs.

It will be understood that in order to enter the keys as illustrated in Fig. 4, the tie 1 must be provided with the cross aperture 10, and when the keys are driven endwise the locking dogs 6 will be drawn downward by reason of the bottom or under sides of the keys coming in contact with the bottom wall of the slots, thereby drawing the heads 11 down upon the tops of the flanges 12 of the railway rails 13.

For the purpose of preventing the keys from becoming accidentally displaced said keys are provided with the bendable tangs 14, which tangs are bent down as illustrated in Fig. 4, after the keys have been properly seated. For the purpose of giving additional strength to the railway tie proper the metal bar 15 is embedded, which metal bar is arched as best illustrated in Fig. 5. It will be understood that the bar 15 should be located at the sides of the arms 2, and in order to do this said arms may be inclined as illustrated in Figs. 3, 4 and 5.

For the purpose of properly anchoring the plates 3 the bottom or lower ends of the arms 2, are provided with the curved portions 16.

For the purpose of backing or preventing any lateral movement of the dogs 6 or for the purpose of removing a portion of the lateral strain the plates 3 are provided with the lugs 17 and the dogs are located against said lugs as best illustrated in Figs. 1, 2 and 5.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. In a railway tie and fastener of the class described, the railway tie formed of cement, cross apertures formed in the body of the tie, rail locking dogs located in the tie, said locking dogs provided with slots, keys provided with bendable tangs and a rail plate provided with slots and the locking dogs located through the slots and means for holding the plate to the body of the tie, substantially as and for the purpose specified.

2. In a tie and rail fastener of the class described, a tie formed of cement having located therein an arch strengthening bar, sockets formed in the tie, rail locking dogs provided with slots and located in the sock-

ets, means for holding the locking dogs and a rail plate provided with arms embedded in the body of the tie, said plate provided with slots, and the locking dogs located in the slots, and means for holding the plate to the body of the tie, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

CHARLES F. SNYDER.

Witnesses:

JOHN H. SPONSELLER,

RALPH R. SNYDER.