

No. 724,165.

PATENTED MAR. 31, 1903.

J. C. CURRIER.
COMPOSITE RAILWAY TIE.
APPLICATION FILED JULY 15, 1902.

NO MODEL.

Fig. 1.

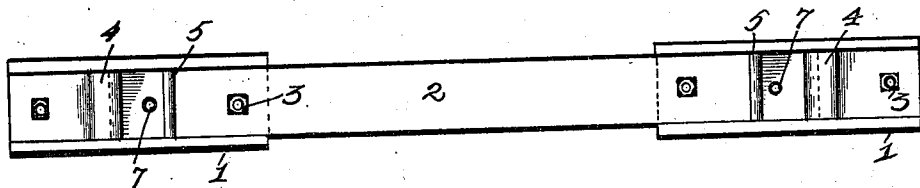


Fig. 2.

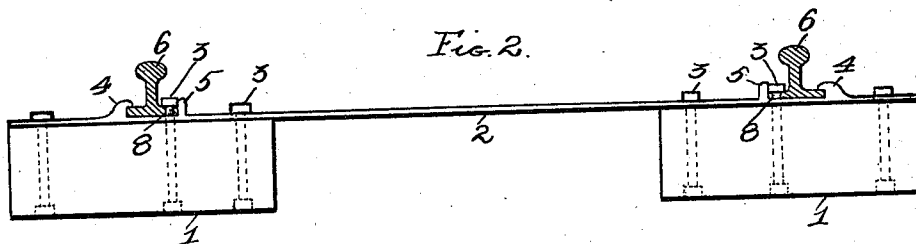
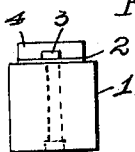


Fig. 3.



Witnesses
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by Higdon & Longan Attys.

UNITED STATES PATENT OFFICE.

JAMES C. CURRIER, OF SALIX, IOWA.

COMPOSITE RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 724,165, dated March 31, 1903.

Application filed July 15, 1902. Serial No. 115,732. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. CURRIER, of the city of Salix, Woodbury county, State of Iowa, have invented certain new and useful
5 Improvements in Composite Railway-Ties, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to composite railway-ties; and it consists of the novel construction, combination, and arrangement of parts hereinafter described, and pointed out in the claims.

The object of my invention is to provide
15 an improved railway-tie which shall be composed of cement, wood or paper, and steel and which shall be reasonable in price and very durable and efficient in use.

In the drawings, Figure 1 is a plan view.
20 Fig. 2 is a side elevation with the rails in section. Fig. 3 is an end view.

In producing my composite tie I prepare in suitable molds rectangular bodies of artificial stone 1, which are preferably composed
25 wholly or in part of cement. I provide one of said blocks of artificial stone at each end of the tie, and said blocks extend, preferably, about one-third of the length of the tie, so as to form a sufficient bearing upon the earth to receive the weight of the rail and the load to be carried thereby. Said blocks 1 are secured to an under surface of a steel connecting-plate 2 by means of the series of bolts 3,
30 which pass through apertures in said steel plate and in said blocks 1. The heads of said bolts are countersunk in angular recesses upon the under side of said blocks, as indicated by dotted lines. Such construction will prevent the turning of said bolts when
40 their nuts are being turned in position.

I do not limit myself to any size of artificial-stone blocks, as the same may be of any suitable size for the weight to be imposed upon them.

45 The steel connecting-plate 2 is of the usual length of railway-ties and the width somewhat less than the width of the upper face of the said blocks 1. Upon the upper surface of said plate 2 are integral lugs 4 and 5, two
50 of the same being adapted to receive the rail 6 between them, as more clearly shown

in Fig. 2. The lugs 4 are provided with an overhanging head, which is adapted to project over the rail-flange, and thereby hold the same securely in position. One of the bolts 55 3 passes through the block 1 and through an aperture 7, formed in said steel connecting-plate, and also through an aligned aperture 8 in the flange of the rail. It will be observed that the bolt which passes through said aperture 8 in the rail-flange is located closely adjacent the lug 5, and when the nut has been placed upon the bolt 3, which passes through said aperture, said lug 5 is bent toward said nut until it forms a nut-lock there- 65 for and prevents further turning of said nut.

I do not limit myself to cement or artificial stone as a material for said base-blocks 1, as it is clear that the same may be composed of wood or paper or any other well-known ma- 70 terial suitable for the purpose.

What I claim is—

1. A composite railway-tie, composed of two rectangular bodies of artificial stone having bolt-holes through them, an integral connecting steel plate arranged to space apart
75 said bodies of artificial stone, bolts passing through said plate and said bodies, means to prevent said bolts from turning in said bodies, and nut-locking and rail-holding lugs, formed integral with and projecting upwardly upon the upper surface of said plate, substantially
80 as described.

2. A composite railway-tie, composed of two rectangular bodies of artificial stone having angular bolt-holes through them, an integral connecting steel plate arranged to space apart said bodies of artificial stone, bolts passing through said plate and said bodies, nut-
85 locking lugs, and integral rail-fastening lugs formed integral with and projecting upon the upper surface of said plate, and arranged to space apart and hold down one edge of the railway-rail flanges, and bolts adapted to hold the opposite edges of the said flanges, sub-
90 stantially as described.

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

JAMES C. CURRIER.

Witnesses:

W. S. MOOS,
JAMES F. TAYLOR.