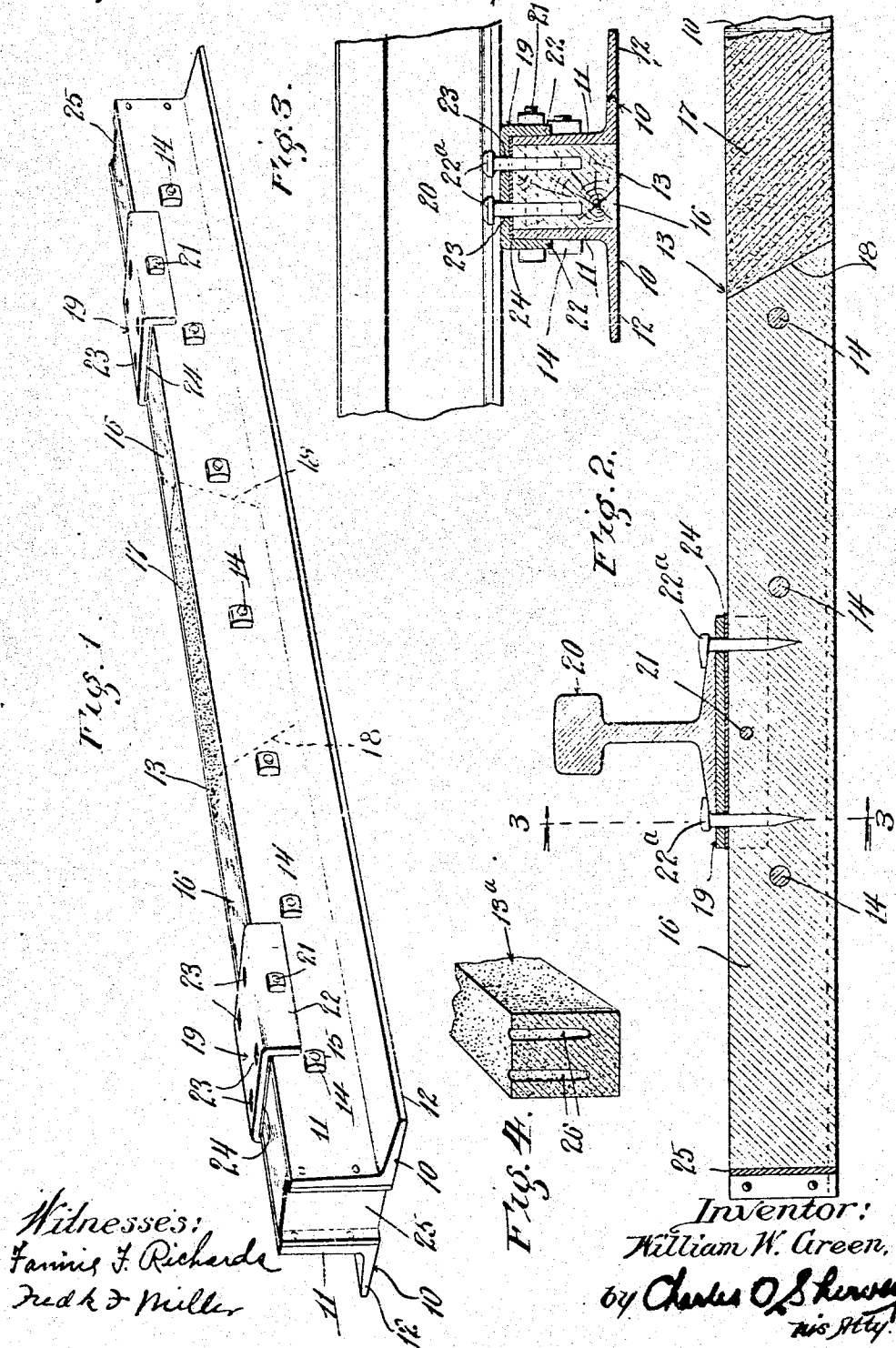


W. W. GREEN.
RAILWAY TIE.
APPLICATION FILED MAY 3, 1910

972,444.

Patented Oct. 11, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM W. GREEN, OF NILES, MICHIGAN.

RAILWAY-TIE.

972,444.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed May 3, 1909. Serial No. 493,510.

To all whom it may concern:

Be it known that I, WILLIAM W. GREEN, a citizen of the United States, residing at Niles, in the county of Berrien and State of Michigan, have invented new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to railway ties and more particularly to that class of railway ties which are made up of a body portion or filler and metal side plates.

The object of this invention is to simplify and cheapen constructions of this type and to otherwise improve the same.

To such ends, this invention consists in certain novel features of construction and arrangement, a description of which will be found in the following specification, and the essential features of which will be more particularly defined in the appended claims.

The invention is clearly illustrated in the drawings furnished herewith, of which—

Figure 1 is a perspective view of the preferred form of my improved tie, Fig. 2 is a longitudinal section of a fragment thereof, Fig. 3 is a vertical cross section taken on the line 3-3 of Fig. 2, and Fig. 4 is a sectional perspective view of a modified form of filler.

Referring to the drawings, 10, 10, are the side plates of the tie, which plates may be formed in any suitable manner, and as shown comprise angle irons, the vertical flanges 11, of which form the sides of the tie and horizontal flanges, 12, form a widened base therefor. Between the side plates 10, is a filler 13, and said filler and side plates are secured together by suitable securing means here shown in the form of bolts and nuts 14, 15, the bolts extending through the vertical flanges 11, of the side plates, and through the filler and being clamped in place by the nuts 15.

The filler may comprise any suitable material or substance and in the preferred form I have shown blocks of wood 16, at the ends of the tie and a body of concrete 17, placed between said blocks 16. The height of the filler is preferably made substantially the same as that of the side plates 10, in order that the upper face thereof may be flush with the upper edges of the side plates, and I have found it convenient to bevel the inner or adjacent ends 18, of the wooden blocks as shown in Fig. 2, so that the weight of the body of concrete between them will be substantially carried by said beveled ends,

although this form is not essential to my invention, broadly speaking. One or more of the bolts 14, should pass through the concrete body so as to prevent its accidental displacement.

Tie plates 19, are placed upon the tie and receive the rails 20, and said tie plates are preferably secured upon the tie by means of bolts and nuts 21, which bolts pass through downwardly extending flanges 22, of the tie plates 19, and through the tie. The most convenient way of fastening the rails to the ties is by means of spikes 22^a. Spike holes 23, may be provided in the tie plates through which the spikes may be driven into the filler. It is perfectly obvious that the spike holes 23, may be omitted from the tie plates, and the spikes driven into the ties immediately adjacent to the tie plates, or notches may be substituted in place of the openings 23, through which the spikes may be driven. If desired pads 24, of soft material such as fiber, card board, or the like may be placed between the tie plates and the tie for the purpose of absorbing part of the shock due to the passing of the trains over the rails. These pads, however, may be omitted and the tie plate arranged to rest directly upon the upper edges of the flanges 11, and the upper faces of the filler 13. I have shown end pieces 25, secured to the side plates 10, and said end pieces cover the ends of the filler and protect the same.

Instead of the particular arrangement above set forth, the filler may of course comprise a single body of material such as concrete, wood or the like, or any other suitable substance may be placed between the side plates to act as the filler and in Fig. 4 I have illustrated a filler 13^a, which is made up of some such material as concrete, asphalt or other moldable substance. In this case it is preferable to provide spike holes 26, for the spikes and this may be done by molding the substance around pins of smaller diameter than the spikes and then withdrawing the pins from the filler before they have had time to become too firmly embedded therein. When this sort of filler is used, it is obvious that the spikes may be driven into the spike holes of less diameter, and that when driven therein, will hold the tie securely in place by reason of their frictional contact with the walls of the spike holes.

It is evident that the tie plates may be positioned upon the tie at the factory where

the ties are made, and that the work of spacing the rails upon the ties in the construction of the track is thereby avoided. Furthermore, that only short blocks of wood are required to receive the spikes, the remainder of the filler being made up of other suitable material.

I realize that various alterations and modifications of this device are possible without departing from the spirit of my invention, and I do not therefore desire to limit myself to the exact details of construction shown and described.

I claim as new and desire to secure by Letters Patent:

1. A railway tie, comprising, in combination, angle iron side plates, arranged with their horizontal flanges extending out from the body of the tie to form a widened base, wooden end blocks between said side plates which have downwardly and inwardly sloping inner ends and a composite body having

ends corresponding with the inner ends of the end blocks and resting thereon.

2. A railway tie comprising, in combination, a pair of angle iron side plates arranged with their horizontal flanges to extend out from the bottom of the main body, a central composite body and wooden end blocks between said side plates, end plates secured to the side plates, individual tie plates arranged over the wooden end blocks and having down turned flanges embracing the vertical flanges of the side plates and bolts and nuts connecting said tie plate with the side plates.

In witness whereof, I have hereunto subscribed my name to the foregoing specification, at Chicago, Cook county, Illinois, this 30th day of April A. D. 1909.

WILLIAM W. GREEN.

Witnesses:

R. F. LINDEMAN,

CHARLES O. SHERVEY.