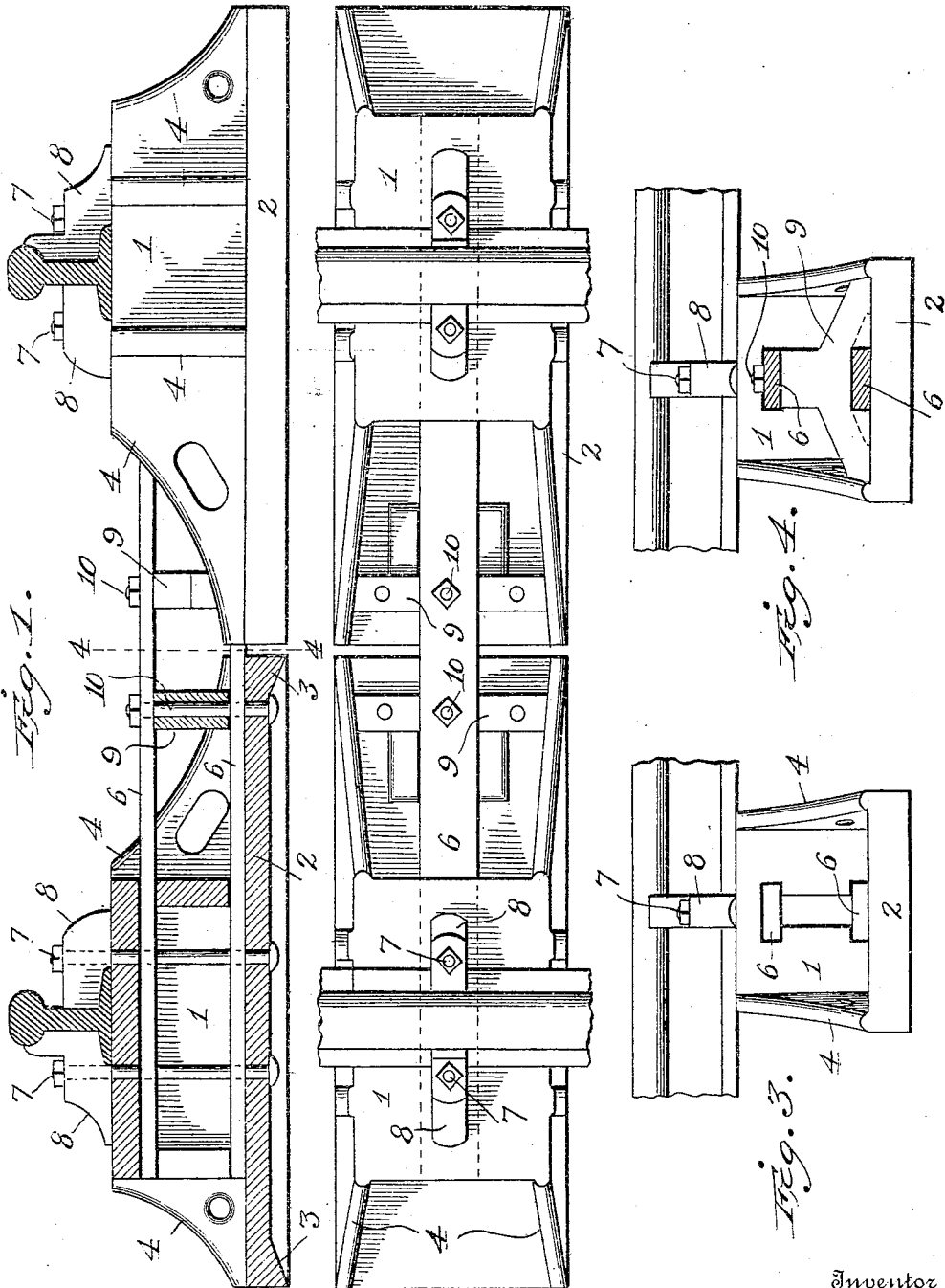


J. A. BYERS.
RAILROAD TIE.

APPLICATION FILED NOV. 30, 1909.

958,691.

Patented May 17, 1910.



Witnesses
Edwin L. Yewell
C. B. Bridges

Fig. 2.

By

Inventor
James A. Byers
Davis & Davis

Attorneys

UNITED STATES PATENT OFFICE.

JAMES A. BYERS, OF CENTERVILLE, TENNESSEE.

RAILROAD-TIE.

958,691.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed November 30, 1909. Serial No. 530,676.

To all whom it may concern:

Be it known that I, JAMES A. BYERS, a citizen of the United States of America, residing at Centerville, in the county of Hickman and State of Tennessee, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a view partly in side elevation and partly in vertical longitudinal section of my improved tie; Fig. 2 is a plan view thereof; Fig. 3 is an end view; and Fig. 4 is a transverse section taken on the line 4 of Fig. 1.

This invention has special reference to the railroad-tie covered by my former Patent 921,081 dated May 11, 1909, the object of the present invention being to improve the construction of said tie, as more fully hereinafter set forth.

In carrying out my invention, I employ two metallic boxes, 1, 1, which are preferably of cast iron and are to be set in the road-bed at the proper distance apart to support the track rails. These boxes are constructed with base plates, 2, which extend beyond the sides and ends of the boxes and are provided on their under sides with inwardly and upwardly beveled flanges or ribs, 3, extending around the four edges of the base plates and adapted to take into the ground. Extending upward from the corners and from the sides of the base plates to the tops of the boxes are braces, 4, for the purpose of reinforcing the boxes and preventing collapse of the same in the event of breakage of the same from any cause. The end walls of the boxes are formed with angular openings or notches, which receive the ends of connecting bars, 6, preferably formed of wrought or malleable iron or steel. These connecting bars prevent the spreading apart of the boxes and are firmly secured therein by means of vertically disposed bolts, 7, extending through the base plates and the tops of the boxes and also serving to secure the rail-clamps, 8, in position on the tops of the boxes to receive and hold the track rails.

My present improvements consist, as will be observed, in extending the two base plates, 2, of the boxes inwardly to the center of the road bed, their inner ends coming

close together, and in tying the connecting rods, 6, to, and supporting them upon spacing and supporting blocks, 9, at the inner ends of said base extensions. These supporting blocks are supported on the bases and lie between the connecting rods and are bolted rigidly between the rods and the bases by vertical bolts, 10, which pass through the base plate, the rods and the intermediate blocks, 9. In this way a much more rigid structure is obtained, thus reducing injurious vibration and unequal sinking and tilting of the opposite ends of the tie to a minimum. It will be observed further that the inner pair of corner braces, 4, are extended inwardly to the inner ends of the extended base plates. It will be observed also that the outer rail clamp, 8, is extended upwardly to fit under and support the head portion of the rail, and that the inner rail clamp is made as high or thick as possible and yet have it avoid interference with the wheel flange.

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

1. In a metallic railway-tie, a pair of boxes each having an inwardly extending base portion and each being provided with means for clamping the rail thereto, a pair of bars connecting the boxes and rigidly attached thereto, supporting and bracing blocks between the bars at the inner ends of the extended base plates, and means for clamping said blocks to the bars and to the base plates.

2. In a metallic railway-tie, the combination of a pair of boxes each having a base plate extended inwardly, and each base plate being braced to the boxes by inwardly extending corner braces, rigid connecting bars lying between said corner braces, spacing and supporting blocks between said braces and said bars and supported by the extended base plates, said blocks lying between said connecting bars, bolts extending through the base plates, supporting blocks and the bars, for the purpose set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 15th day of Nov. 1909.

JAMES A. BYERS.

Witnesses:

WALTER HARRIS,
J. W. LAMBERT.