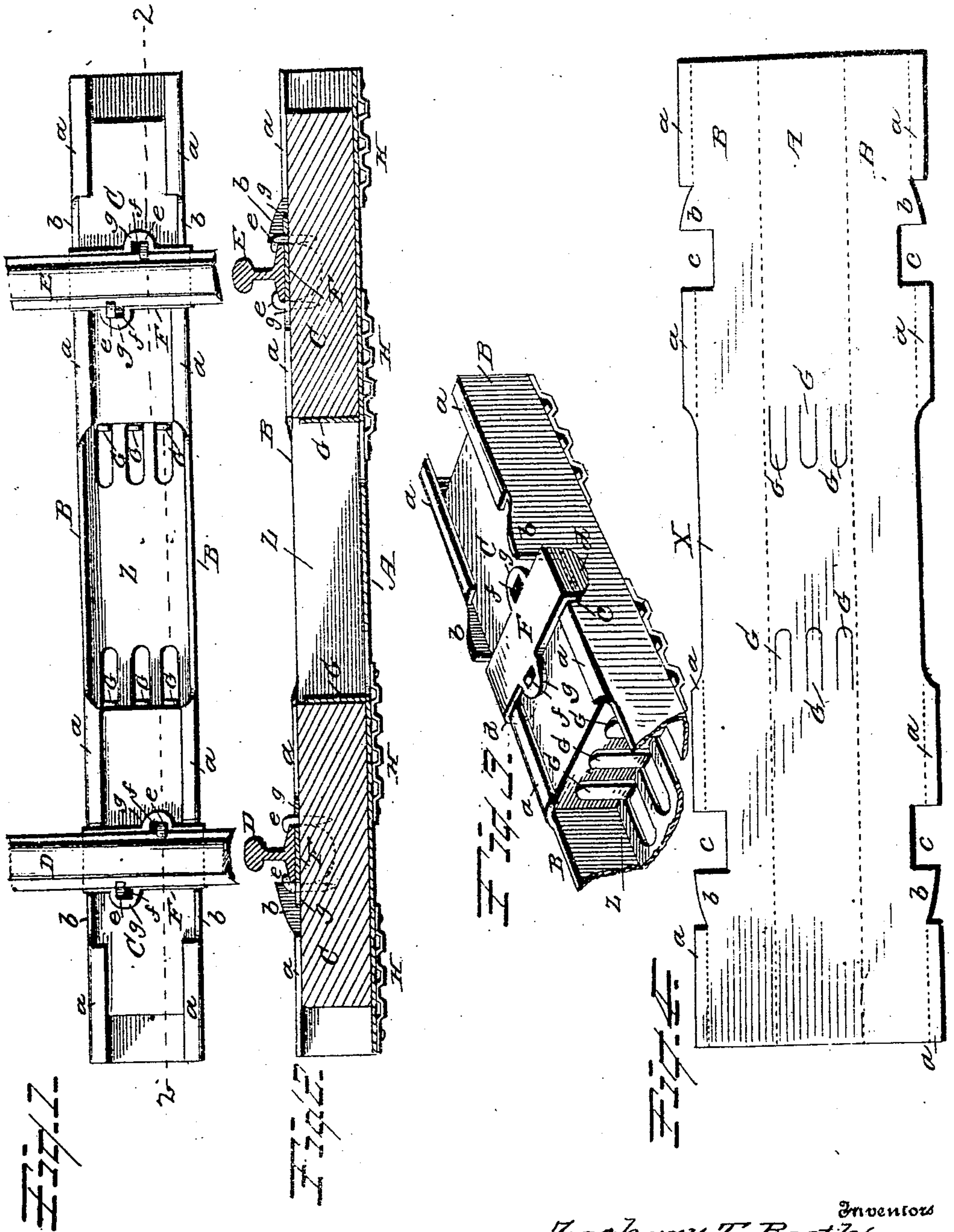


No. 812,807.

PATENTED FEB. 20, 1906.

Z. T. BOOTH & J. F. BITTLE.
RAILWAY TIE.

APPLICATION FILED NOV. 17, 1905.



Witnesses

M. E. Moore.
Wm. J. Goddard.

Inventors
Zachary T. Booth.
James F. Bittle.

By Cha. H. Fowler

Attorney

UNITED STATES PATENT OFFICE.

ZACHARY T. BOOTH AND JAMES F. BITTLE, OF BRUNSWICK, MARYLAND,
ASSIGNORS OF ONE-THIRD TO CHRISTIAN SMITH, OF BRUNSWICK, MARY-
LAND.

RAILWAY-TIE.

No. 812,807.

Specification of Letters Patent.

Patented Feb. 20, 1906.

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To all whom it may concern:

Be it known that we, ZACHARY T. BOOTH and JAMES F. BITTLE, citizens of the United States, residing at Brunswick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Railway-Ties; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a railroad-tie that will be simple in construction and possess many features of superiority over the ties in ordinary use, provision being made to prevent the rails from spreading when secured to the tie and prevent the tie from sliding from the road-bed and especially-constructed means for holding the ballast in place.

The invention consists in a railroad-tie constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a top plan view of a railroad-tie constructed in accordance with the invention, the rails being shown in place thereon; Fig. 2, a longitudinal vertical section taken on line 2 2 of Fig. 1; Fig. 3, a detail view in perspective, showing one end of the tie with ballast in place; Fig. 4, a plan view of the sheet-metal blank from which the tie is formed, the dotted lines showing that portion of the blank which is to be bent into position to form the tie, the fenders being shown in full lines, which are also bent up in position shown in Figs. 2 and 3.

In the accompanying drawings, X in Fig. 4 is to represent the sheet-metal blank from which the tie is formed and which may be of any suitable size and thickness. In describing the construction of the tie the same letters of reference used in Figs. 1, 2, and 3 will be used in the blank shown in Fig. 4, so that the parts upon the blank will be more readily understood.

The bottom of the tie is represented at A both in the completed tie and in the blank, and that portion of the tie which is to form the sides thereof is indicated at B and is bent up in the blank at right angles to the bottom

of the tie. The sides B of the tie have horizontally and inwardly extending retaining-flanges *a* to hold the blocks C in position therein and also bracing-lugs *b*, against which about the rails D E to prevent them from spreading, said lugs being vertical and on the same plane with the sides of the tie. The sides B of the tie have notches *c* to receive the turned-down ends *d* of clamping-supports F for the rails, said rails being held thereon by suitable spikes *e* or other like fastening means. The fastening means extends through elongated openings *f* in lugs *g*, one upon each side of the clamping-support F and integral therewith, the holes or openings in the lugs being long, so in case the spike or fastening device becomes crippled and cannot be removed another spike or fastening device may be driven down beside it.

The bottom A of the tie is cut in blank, so as to form fenders G when bent up in position and may be of any suitable number and arranged as near together as found preferable, which serve the double purpose of forming stops for the blocks C when first placed in the tie and also fenders to hold the ballast within the space Z when the blocks are removed for any purpose.

On the bottom of the tie and upon the under side thereof are transversely-corrugated feet H to prevent the tie sliding from road-beds or working out of alinement.

In describing the construction of the tie it is evident that many changes or modifications may be resorted to as would come within the ordinary judgment of the mechanic without in any manner departing from the essential features of the invention.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A metal railroad-tie comprising a bottom and side walls integral with each other, blocks located between the side walls and a plurality of fenders integral with the bottom of the tie and extending up vertically to hold the ballast in place within the tie when either block is removed, substantially as and for the purpose described.

2. A metal railroad-tie comprising a bottom and side walls integral with each other, blocks located between the side walls, verti-

cally-extending fenders abutting against the inner ends of the blocks, and clamping-supports having downwardly-extending ends to embrace the side walls of the tie and having
5 lugs with elongated openings therein for suitable spikes or like fastening means to hold the rails on the supports, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ZACHARY T. BOOTH.
JAMES F. BITTLE.

Witnesses:

ROBERT M. H. LEASE,
EDWARD C. SHAFER.