

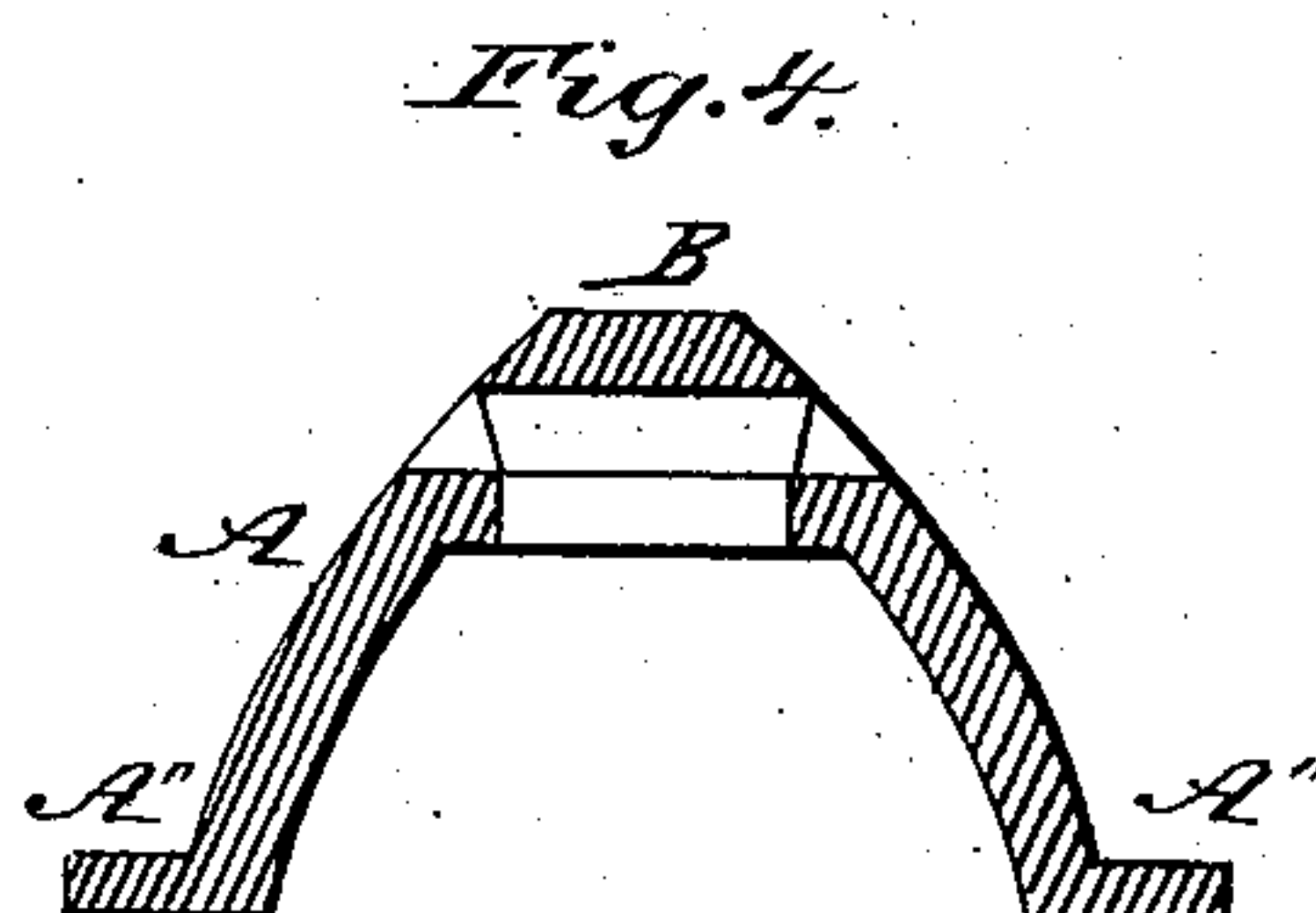
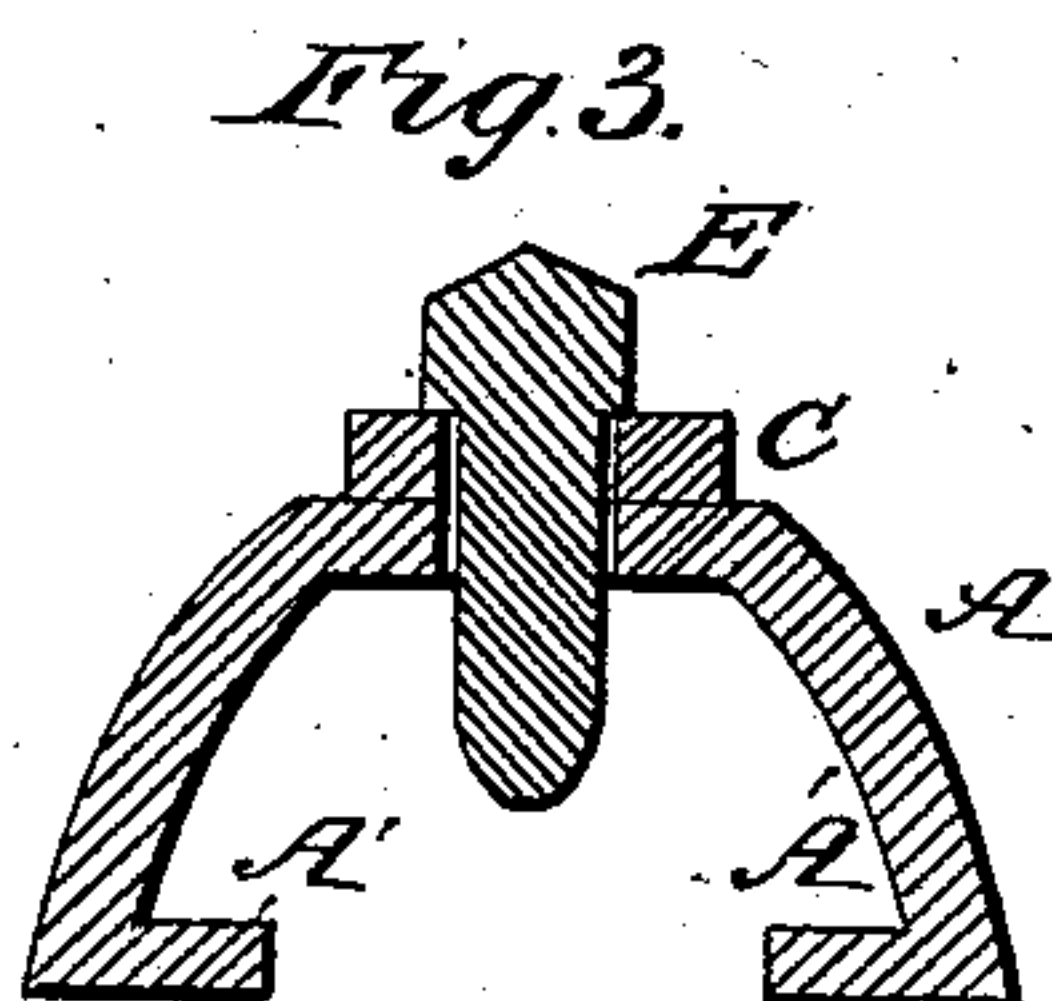
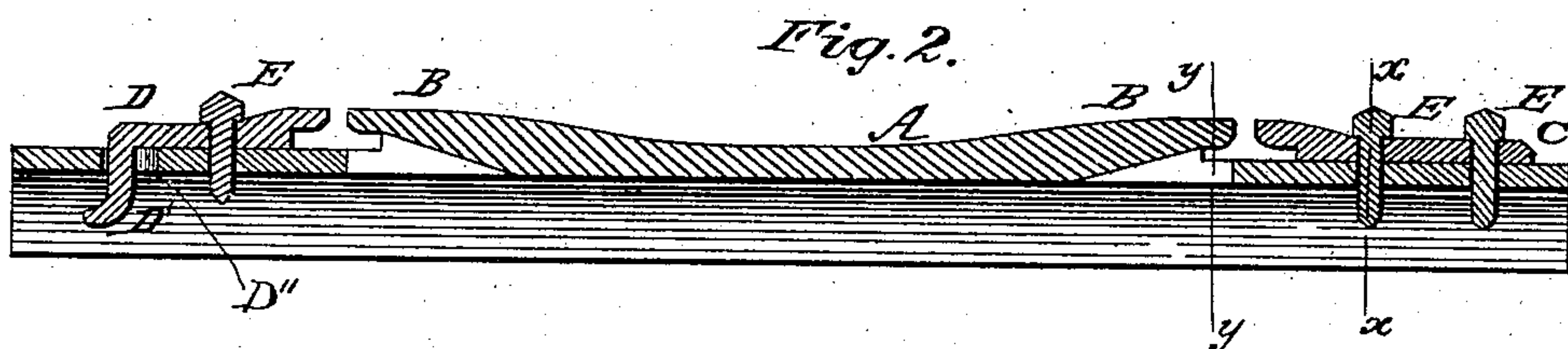
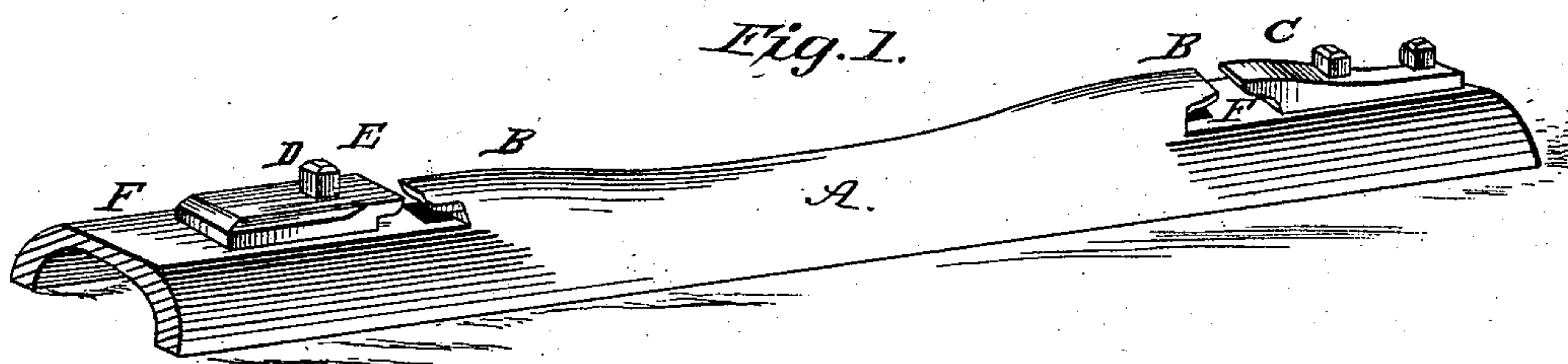
(No Model.)

T. J. BRONSON & A. ARMSTRONG.

RAILROAD TIE.

No. 289,806.

Patented Dec. 11, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS J. BRONSON AND ALEXANDER ARMSTRONG, OF JACKSONVILLE,
ILLINOIS.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 289,806, dated December 11, 1883.

Application filed July 20, 1883. (No model.)

To all whom it may concern:

Be it known that we, THOMAS J. BRONSON and ALEXANDER ARMSTRONG, citizens of the United States, and residents of Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Railroad-Ties; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved railroad-tie. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a cross-sectional view on line *x x*, Fig. 2; and Fig. 4 is a similar view on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to metallic railroad-ties; and it consists in the improved construction and combination of parts of the same, as will be hereinafter more fully described and claimed.

In the accompanying drawings, A represents our improved tie, which is iron or steel, with either an inwardly-projecting flange, A', as shown in Fig. 3, or with an outwardly-projecting flange, A'', as shown in Fig. 4, and has upon its top or upper side the lugs B, which are struck up out of the tie by means of dies, and which are adapted to hold one edge of the flange of the rail. The top of the tie, near its ends, is flattened to form chair-seats F, upon which the rail-chairs C and D rest.

C and D indicate the rail-chairs, which are adapted to be secured upon the tie, either by two or more bolts, E, passing through the chair and the tie, as shown at C, Fig. 2; or the chair may be cast with a downwardly-projecting lug, D', on its outer end, adapted to pass through an oval opening, D'', in the top of the tie, as shown at D, Fig. 2, the chair being then firmly secured by means of bolts E, passing through the chair and the tie.

From the foregoing description, taken in connection with the accompanying drawings,

the construction of our improved railroad-tie will readily be understood without requiring further explanation.

It will be seen that our improved tie can be very cheaply made out of iron or steel, with suitable lugs struck up out of its upper side by means of dies. The chairs, which serve to hold the rails to the ties, are also simple in construction, and can be readily and easily secured to the ties.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. A metallic railroad-tie rolled in a semi-cylindrical form, with flanges on its lower edges, and provided with lugs B, struck up out of its upper side, and having its upper surface flattened near either end to form chair-seats, as and for the purpose shown and set forth.

2. The combination of the metallic railroad-tie A, rolled in a semi-cylindrical form, with flanges on its lower edges, and provided with lugs B, struck up out of its upper side, and having its upper surface flattened near either end to form chair-seats, rail-chairs C, adapted to fit upon the chair-seats F, and bolts E, passing through openings in the chairs and the tie, substantially as and for the purposes shown and described.

3. The combination of the metallic railroad-tie A, rolled in a semi-cylindrical form, with flanges on its lower edges, and provided with lugs B, struck up out of its upper side, oval opening D'', and having its upper surface flattened near either end to form chair-seats, rail-chairs D, having downwardly-projecting lugs D', and bolts E, passing through openings in the chairs and the tie, substantially as and for the purpose shown and described.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

THOMAS J. BRONSON.
ALEXANDER ARMSTRONG.

Witnesses:

CHARLES W. FITZSIMMONS,
GEO. T. HAMILTON.