

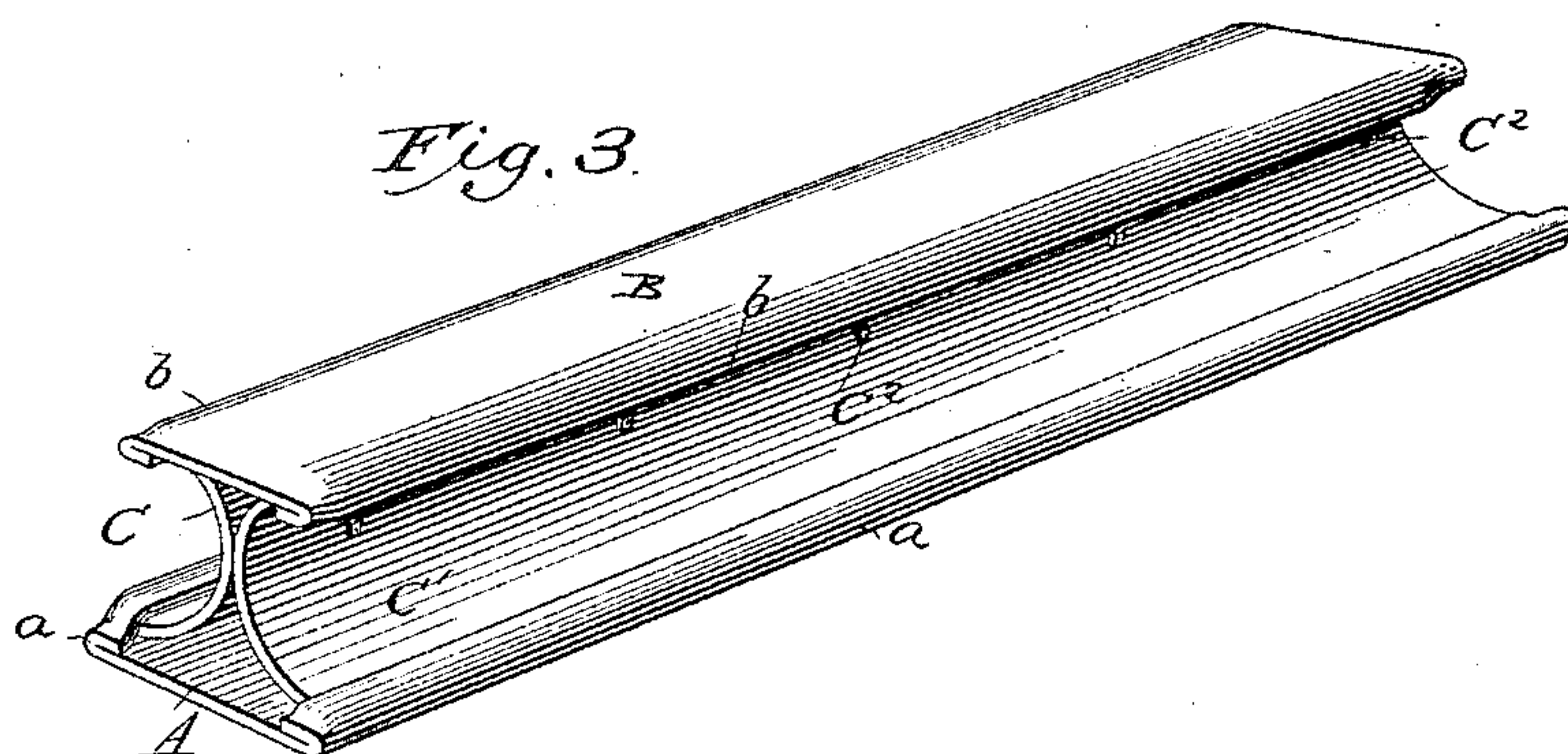
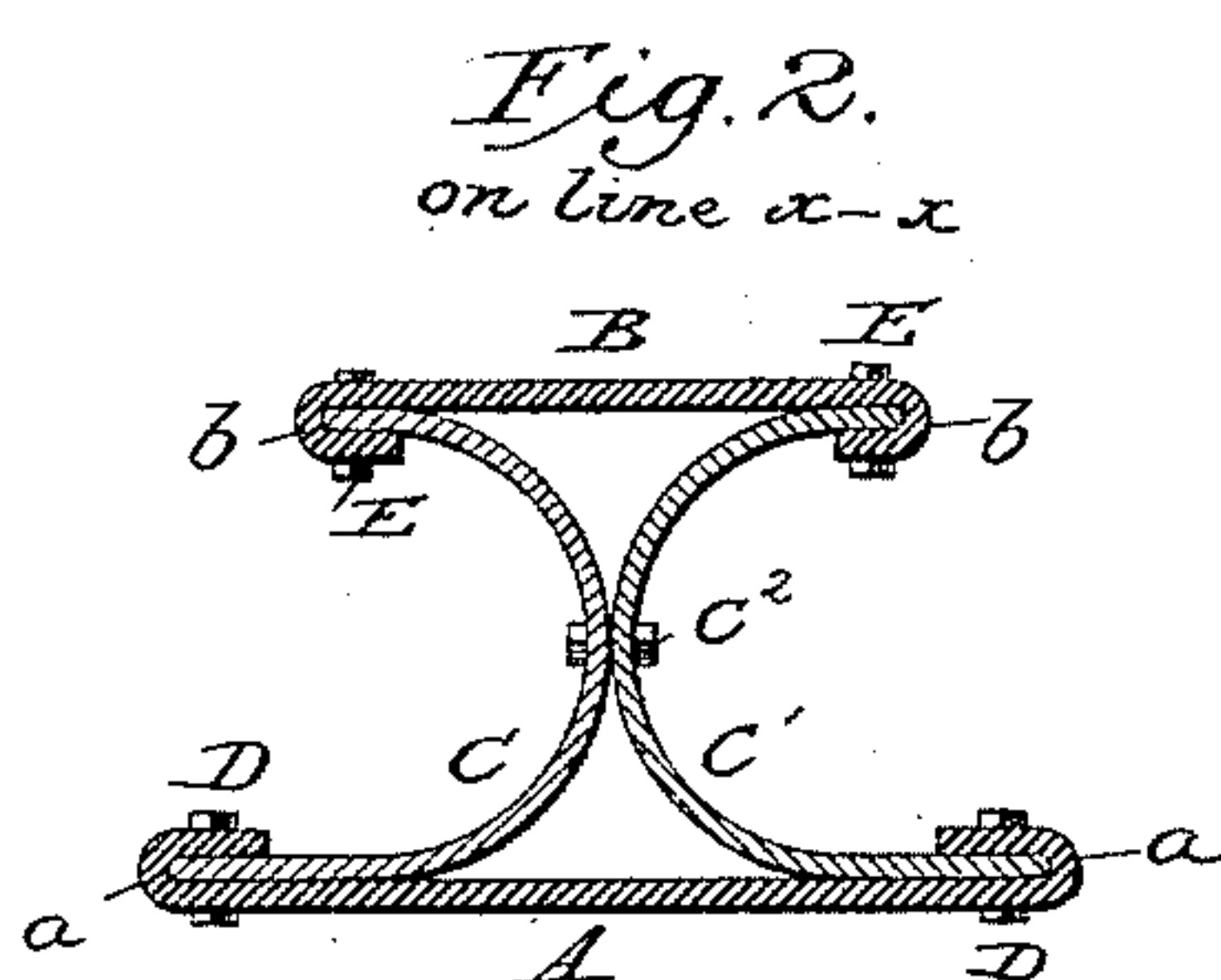
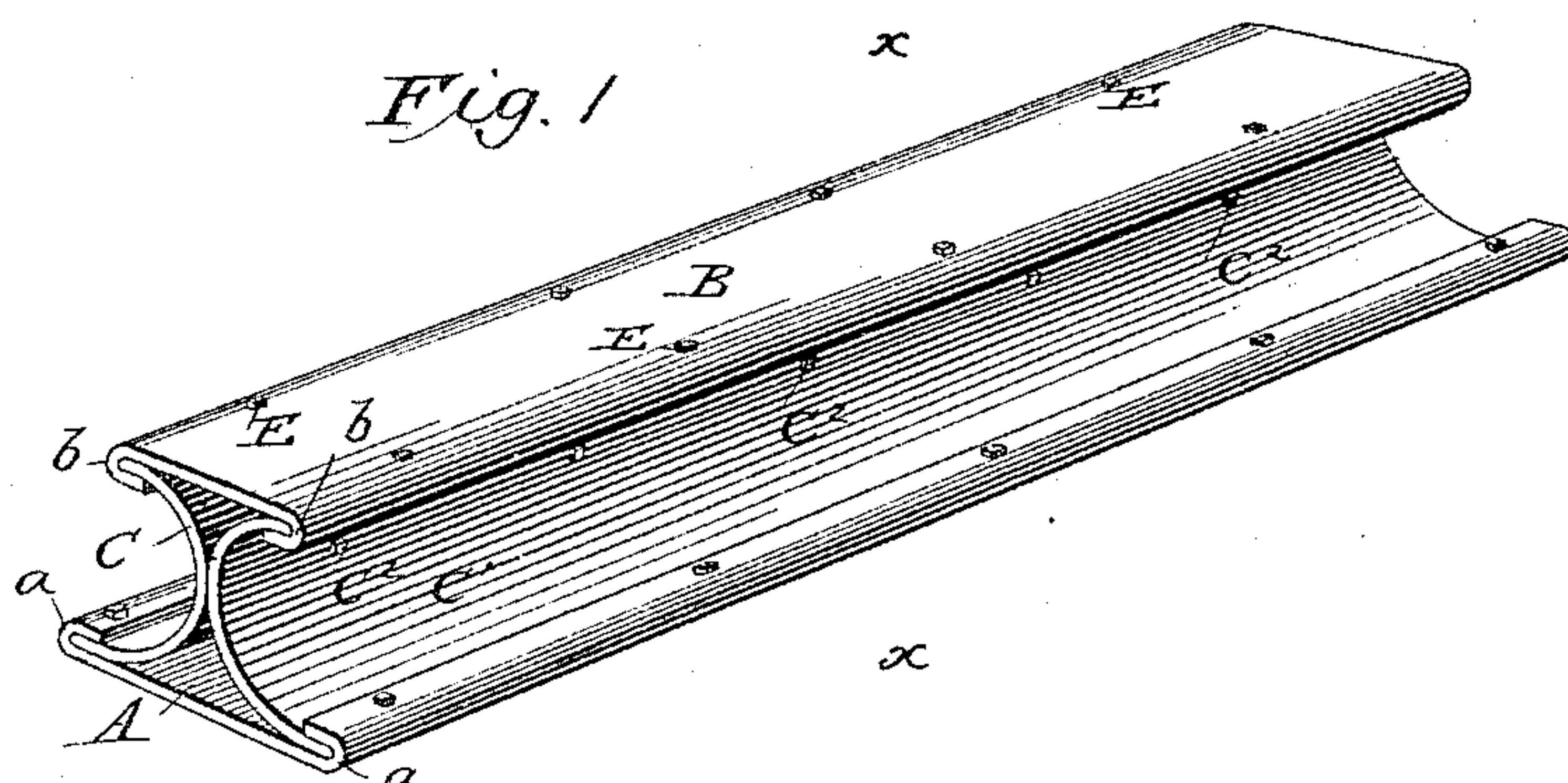
(No Model.)

L. E. WHIPPLE.

RAILROAD TIE.

No. 327,843.

Patented Oct. 6, 1885.



WITNESSES

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LEANDER E. WHIPPLE, OF HARTFORD, CONNECTICUT.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 327,843, dated October 6, 1885.

Application filed March 13, 1885. Serial No. 158,670. (No model.)

To all whom it may concern:

Be it known that I, LEANDER E. WHIPPLE, of Hartford, in the county of Hartford and State of Connecticut, have invented certain Improvements in Railroad-Ties, of which the following is a specification.

The aim of this invention is to produce a metallic tie which shall possess the characteristics of cheapness, durability, strength, and elasticity; and to this end it consists in a tie composed of a base-plate and top plate of sheet metal united by intervening plates of curved form in cross-section, in the manner hereinafter described.

Figure 1 represents a perspective view of my improved tie; Fig. 2, a vertical cross-section on the line $x x$. Fig. 3 is a perspective view, showing a modified form of the same.

Referring to the accompanying drawings, the body of the tie consists of the base-plate A, the top plate, B, and the two body-plates C C'. The bottom plate is constructed of a flat form and of uniform width, and with its two edges curled upward and inward to form lips or flanges a . The top plate, B, which is usually of a width somewhat less than that of the base-plate, has its upper edges curled downward and inward, forming lips or flanges b . The body-plates C C' are each of a semicircular or substantially semicircular form in cross-section. They are placed together, side by side, with their continuous surfaces bearing against each other, and are seated at their lower edges within the flanges of the base-plate, and at their upper edges within the flanges of the top plate, in the manner plainly represented in the drawings.

It is to be observed that when thus arranged the body-plates are seated and confined firmly against each other, so as to give mutual support and maintain the top plate firmly in position.

The flanges or lips may be compressed with more or less firmness upon the top plate, and, if desired, bolts or rivets may be placed through the edges to confine the parts firmly against movement upon each other and to prevent them from being accidentally disconnected.

In the drawings, the rivets C² unite the body-plates with each other, while the rivets D and E unite the edges of the body-plates with the base and top plates respectively.

The various plates may be made of such

size and thickness and proportion as circumstances may require.

In order to provide for slight differences which may occur in the expansion of the several parts, and to prevent the straining or bending of the tie in consequence thereof, the holes through which the bolts or rivets are passed may be slightly elongated in the direction of the length of the tie.

In place of using the rivets for this purpose, the top and bottom plates may be extended slightly beyond the body-plates and closed together over the ends of the same in the manner represented in Fig. 3.

While it is preferred to have the body-plates of substantially a semicircular form in cross-section, it is to be understood that they may be made of angular or other form, provided they are adapted to support each other midway of their height.

Having thus described my invention, what I claim is—

1. In a railroad-tie, the combination of a base-plate, a top plate, and two intervening plates of curved or angular form in cross-section, arranged to bear against each other.

2. The railroad-tie consisting of a flanged top plate, the flanged base-plate, and the substantially-semicircular plates C C', seated against each other and within the flanges of the top and bottom plates, substantially as described and shown.

3. In a railroad-tie, a top plate and two supporting-plates therefor, seated against each other midway of their height and separated at their upper and lower edges.

4. In a railroad-tie, the combination of a base-plate, a top plate, and two curved supporting-plates united midway of their height by bolts or rivets, substantially as described and shown.

5. In a railroad-tie, the base-plate and the top plate, in combination with the curved supporting-plates, and the rivets or bolts connecting the supporting-plates with each other and with the top and bottom plates respectively.

In testimony whereof I hereunto set my hand, this 28th day of February, 1885, in the presence of two attesting witnesses.

LEANDER E. WHIPPLE.

Witnesses:

HATTIE F. WHIPPLE,
ALBERT C. TANNER.