

No. 689,704.

Patented Dec. 24, 1901.

L. CASTIN.
METALLIC RAILROAD TIE.

(Application filed Oct. 9, 1901.)

(No Model.)

Fig. 1.

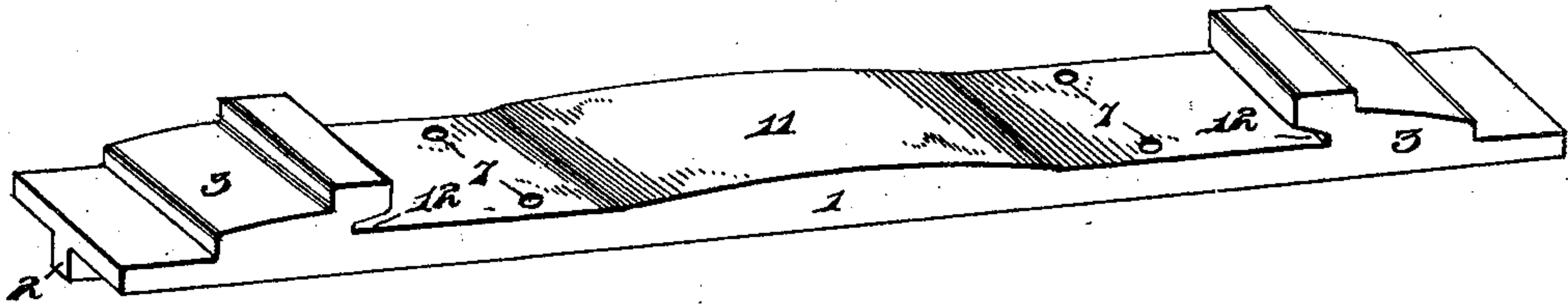


Fig. 2.

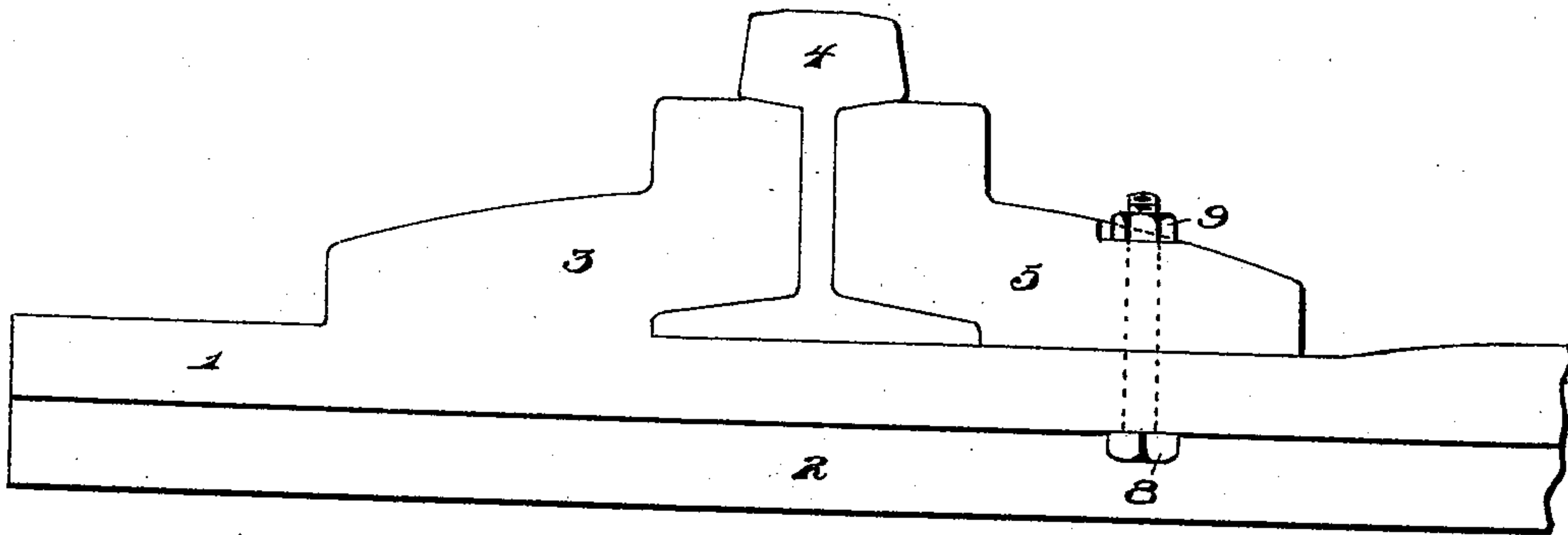
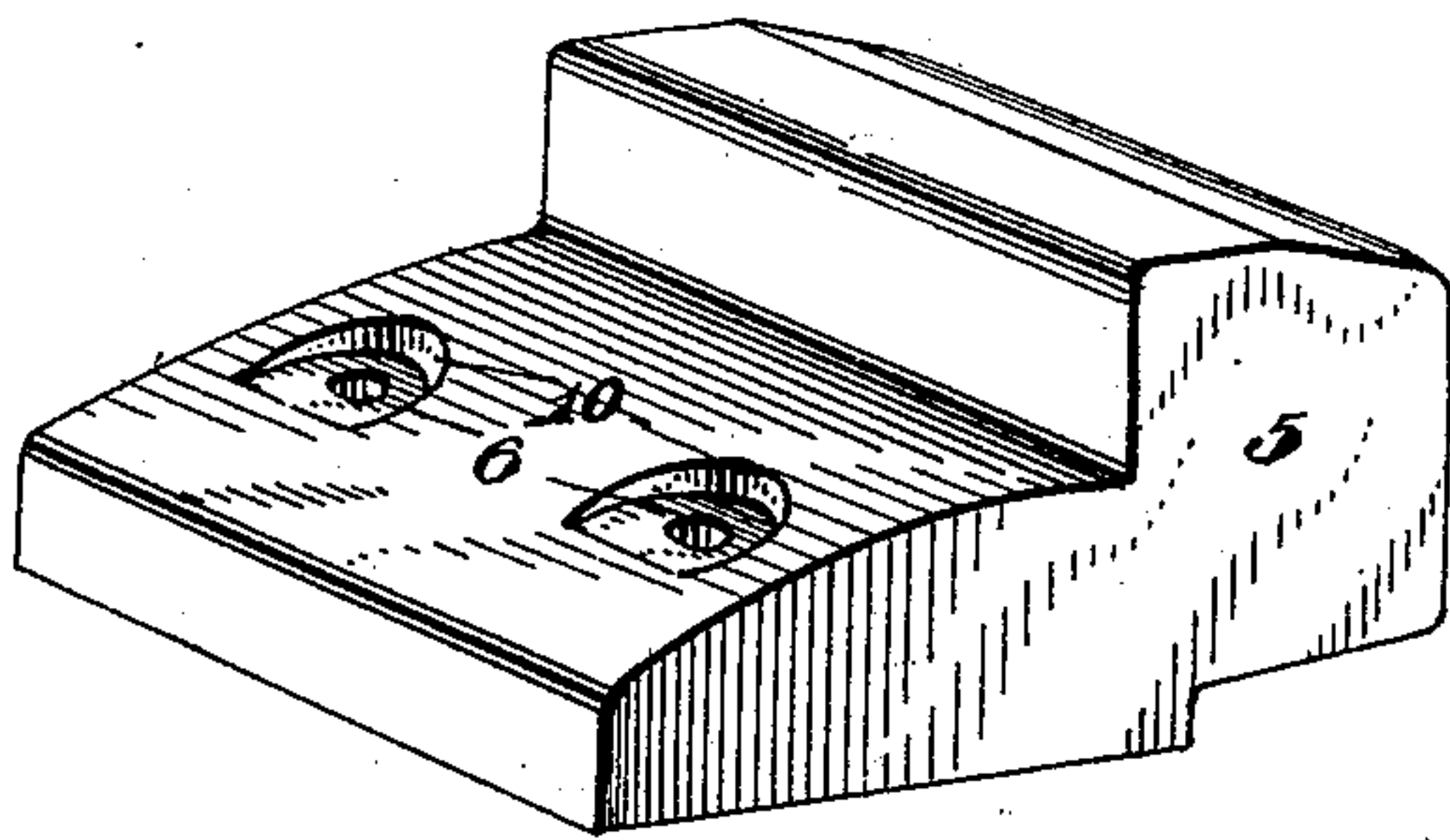


Fig. 3.



Witnesses:

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METALLIC RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 689,704, dated December 24, 1901.

Application filed October 9, 1901. Serial No. 78,031. (No model.)

To all whom it may concern:

Be it known that I, LUCIEN CASTIN, a citizen of the United States of America, residing at Point Marion, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Railroad-Ties, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in metallic ties, and has for its object the provision of novel means for conveniently fastening the rails to a tie of this type.

Briefly described, my invention comprises a metallic bar or tie-body having on its underneath face a centrally-arranged flange which extends from end to end of the tie. On its upper face the bar or tie-body is provided with integral clamp-blocks near the ends, these blocks being adapted to engage the outer face of the rail, the latter being rigidly secured in position on the tie by means of detachable clamp-blocks, which are fastened to the bar or tie-body. The tie-body intermediate of the rails is preferably made of increased thickness to that at the ends, so as to give rigidity and strength thereto.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a detail perspective view of my improved metallic tie with the detachable clamp-blocks removed. Fig. 2 is a side elevation of a part of the tie, showing the rail in end view clamped thereon. Fig. 3 is a detail perspective view of one of the removable clamp-blocks.

To put my invention into practice, I provide the tie-body or bar, which may be composed of steel, iron, or any other suitable metal, and is preferably provided on its underneath face with a downwardly-extending flange 2, which extends the entire length of the tie. This flange 2 permits the "tamping" of the ties more advantageously than is the case where the entire lower face of the tie is flush. This tie is provided near each end with an integral clamp-block 3, which is adapted to embrace the outer face of the rails

4. The inner faces of the rails 4 are engaged in a similar manner by the detachable clamp-blocks 5, formed substantially the same as the integral clamp-blocks 3. These clamp-blocks 5 are provided with apertures 6, adapted to register with apertures 7 in the tie, and through these registering apertures is passed the securing-bolts 8, which are held therein by means of the nuts 9. As the upper face of the clamp-blocks 5 is beveled or at an incline, I preferably recess the clamp-blocks, as shown at 10, so as to form a seating-surface for the nuts 9. The tie-body is preferably increased in thickness intermediate of its ends, as shown at 11, which serves to give strength and rigidity thereto. The rails 4, it will be observed, are first placed in position against the clamp-blocks 3, the latter being recessed so as to receive the base of the rail-flange, as shown at 12. The engaging top faces of the clamp-blocks 3 and 5 are beveled to conform to the underneath face of the rail-tread, and the web-engaging face of the clamp-blocks may be constructed to conform to the web of the rail.

In the practice of my invention it will be observed that slight changes may be made in the details of construction without departing from the general spirit of the invention.

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

A metallic tie which comprises in its entirety a body portion having an enlarged central portion and having a single flange on its under face extending longitudinally of the same, an integral clamp-block on one end of said body portion engaging the rail-base, rail-web and under face of the rail-head, and a removable clamp-block engaging the rail-base, rail-web and under face of the rail-head and seated on the upper face of the body portion adjacent to said enlarged portion, seats on said removable clamp-block, and bolts extending through said removable clamp-block and body portion, and engaged by nuts seated in said seats, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

LUCIEN CASTIN.

Witnesses:

JOHN NOLAND,
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