

No. 692,600.

Patented Feb. 4, 1902.

W. V. BEAL & S. SMITH.

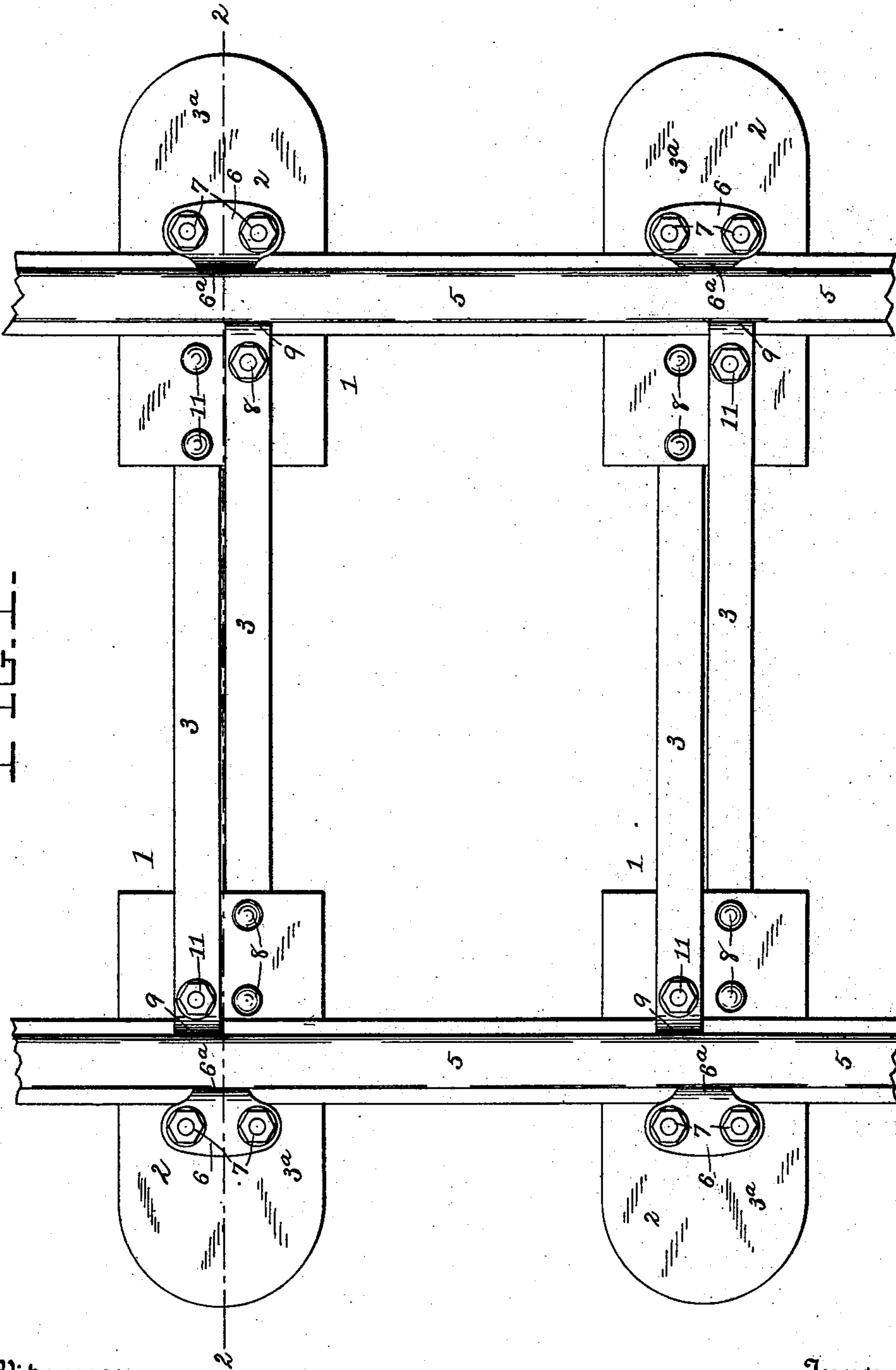
METAL RAILROAD TIE.

(Application filed Nov. 6, 1901.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.



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METAL RAILROAD TIE.

(Application filed Nov. 8, 1901.)

(No Model.)

2 Sheets—Sheet 2.

FIG. 2.

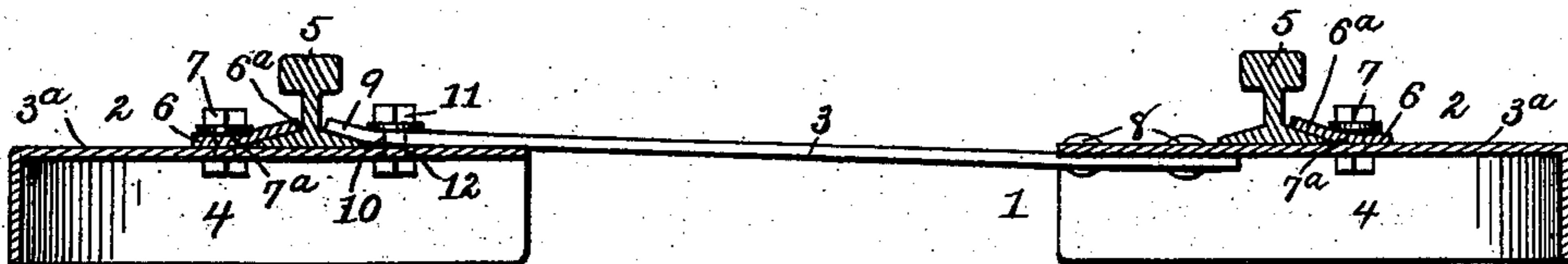


FIG. 3.

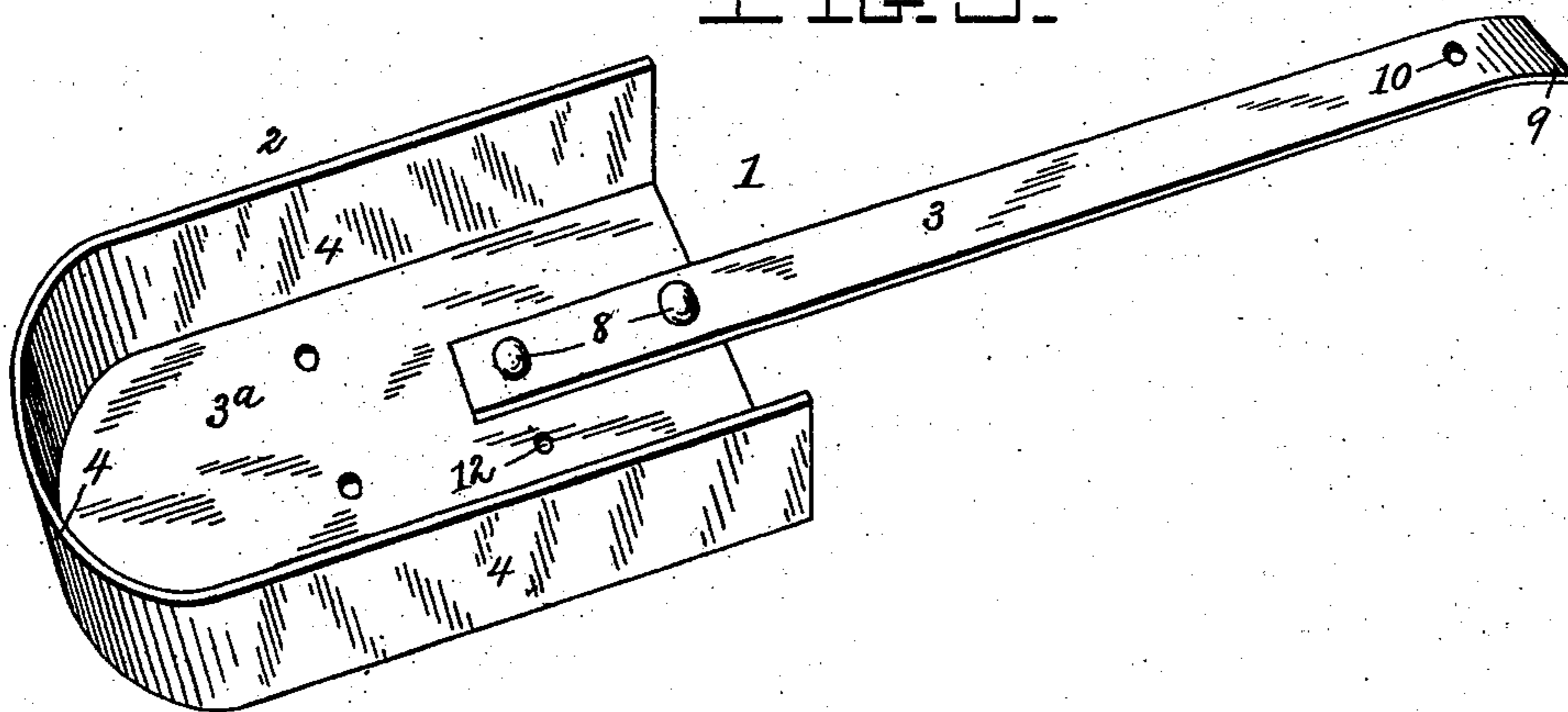
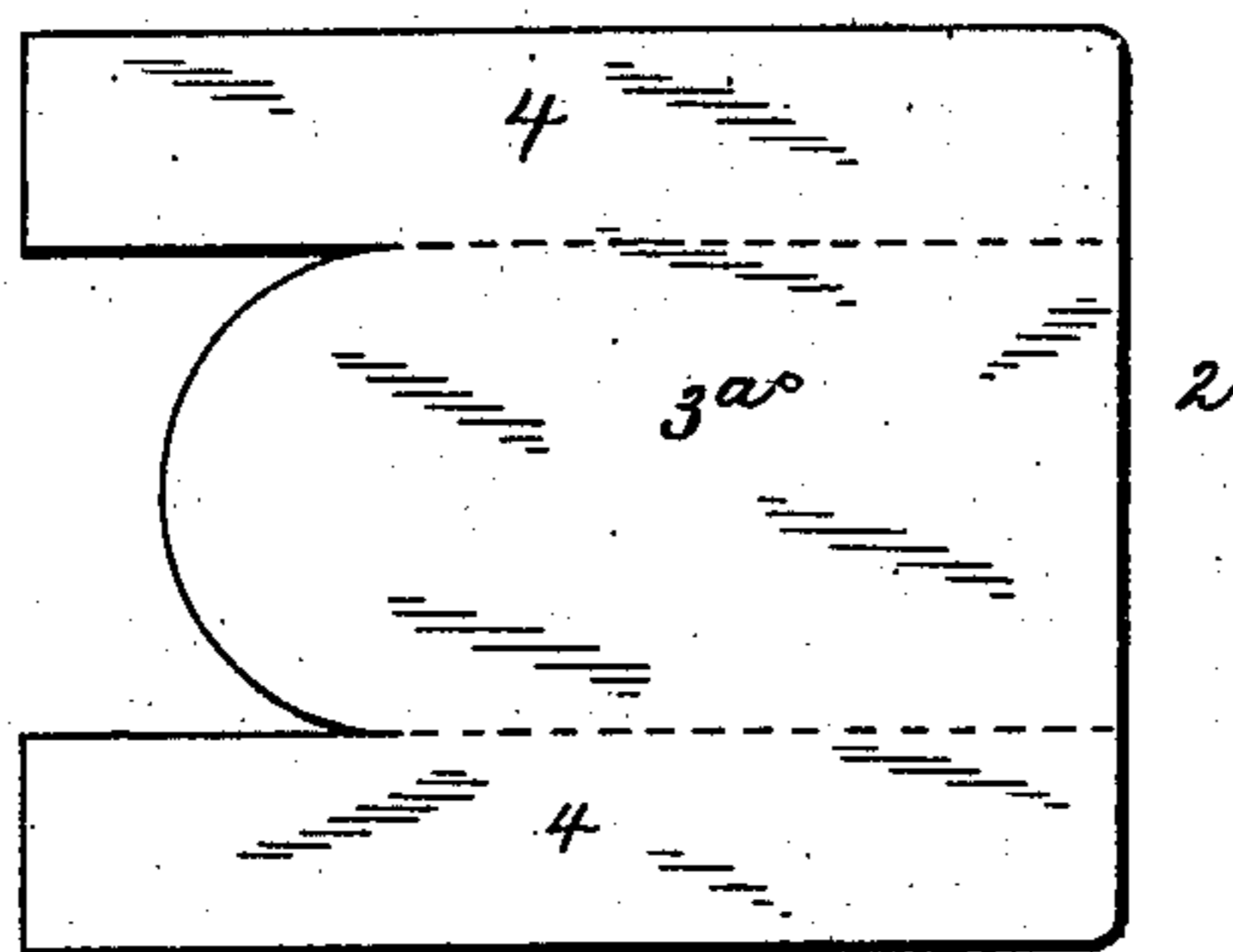


FIG. 4.



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UNITED STATES PATENT OFFICE.

WARREN V. BEAL AND SAMUEL SMITH, OF REDCLOUD, NEBRASKA.

METAL RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 692,600, dated February 4, 1902.

Application filed November 6, 1901. Serial No. 81,326. (No model.)

To all whom it may concern:

Be it known that we, WARREN V. BEAL and SAMUEL SMITH, citizens of the United States, residing at Redcloud, in the county of Webster and State of Nebraska, have invented new and useful Improvements in Metal Railroad-Ties, of which the following is a specification.

Our invention relates to metal railroad-ties; and the object of the same is to construct a tie of light weight and great strength and one that will firmly engage the ground or ballast and be thereby held from slipping endwise.

Another object is to do away with auxiliary fasteners, excepting those carried by the tie itself.

The novel construction by which these objects are attained is fully described in this specification and claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a plan view of a section of track laid on two of our improved ties. Fig. 2 is a transverse section on the line 2 2, Fig. 1. Fig. 3 is a perspective of one member of our improved tie. Fig. 4 is a plan view of the blank out of which each of the body portions is formed.

Like numerals of reference designate like parts in the different views of the drawings.

Our ties are formed by the combination of two members 1, identical in construction. Only one member will be described in detail; but the same numerals of reference will be applied to the other. The member 1 comprises a body portion 2 and a connecting-bar 3. The body 2 has a plane surface or deck 3^a, which is surmounted on three sides by a downwardly-extending flange 4. The deck 3^a provides a support for the rail 5, and the flange 4 engages the ground, thereby retaining the ballast and preventing slipping of the tie. The body 2 is formed of a single piece of sheet metal cut as shown in Fig. 4. To as-

sist in retaining the rail 5, a fastener 6 is provided, having an overhanging lip 6^a and secured by bolts 7 passing through perforations 7^a therein. We may construct the flanges with their lower edges bent at right angles to prevent cutting into the ground.

The bar 3 is uniform in contour and is attached to the body 2 by bolts 8. The end of the bar 3 is bent slightly upward at 9 and apertured at 10. In forming a tie the members 1 are secured together by bolts 11 passing through apertures 12 in the decks 3^a and through the apertures 10. The apertures 12 are so located that the bent-up ends 9 engage the inner flanges of the rails 5.

We do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of our invention.

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

1. In a tie of the class described, a body portion having a plane deck surrounded on three sides by a flange and a bar attached to said body, and having an upturned end adapted to engage the inner flange of a rail, substantially as described.

2. In a tie consisting of the combination of two body members each comprising a deck surrounded by a downwardly-extending flange, means mounted on said decks for engaging the outer flanges of the rails, and bars connected to said bodies and having upturned ends adapted to engage the inner flanges of said rails, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WARREN V. BEAL.
SAMUEL SMITH.

Witnesses:

Q. W. EDSON,
G. V. ARGABRIGHT.