

R. P. HOCTER.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED FEB. 13, 1911.

995,140.

Patented June 13, 1911.

Fig. 1.

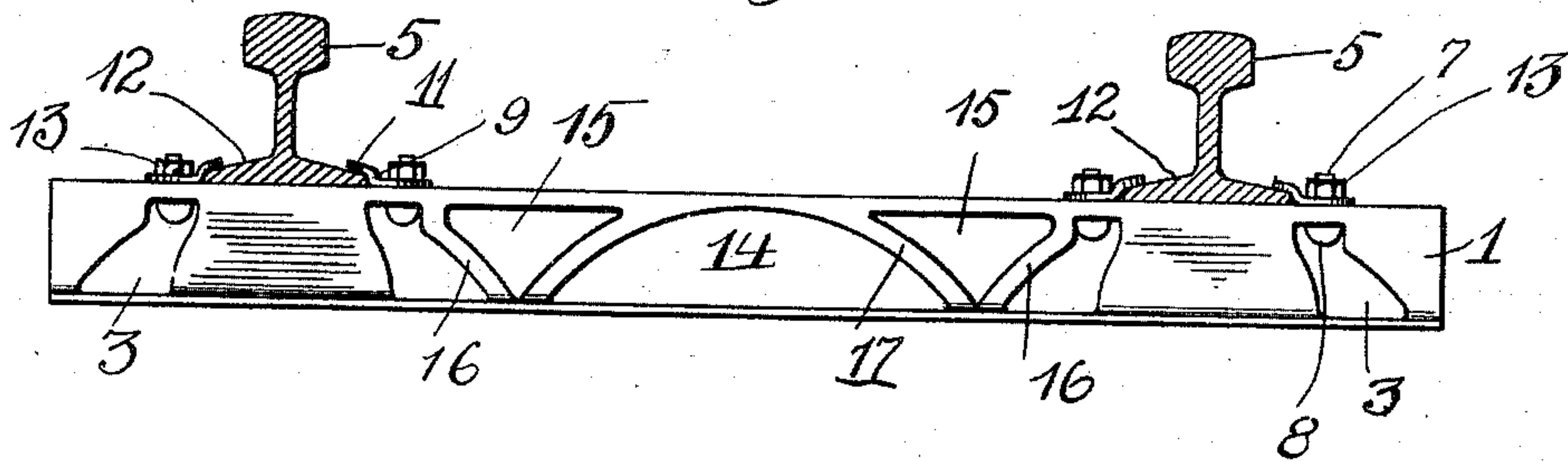


Fig. 2.

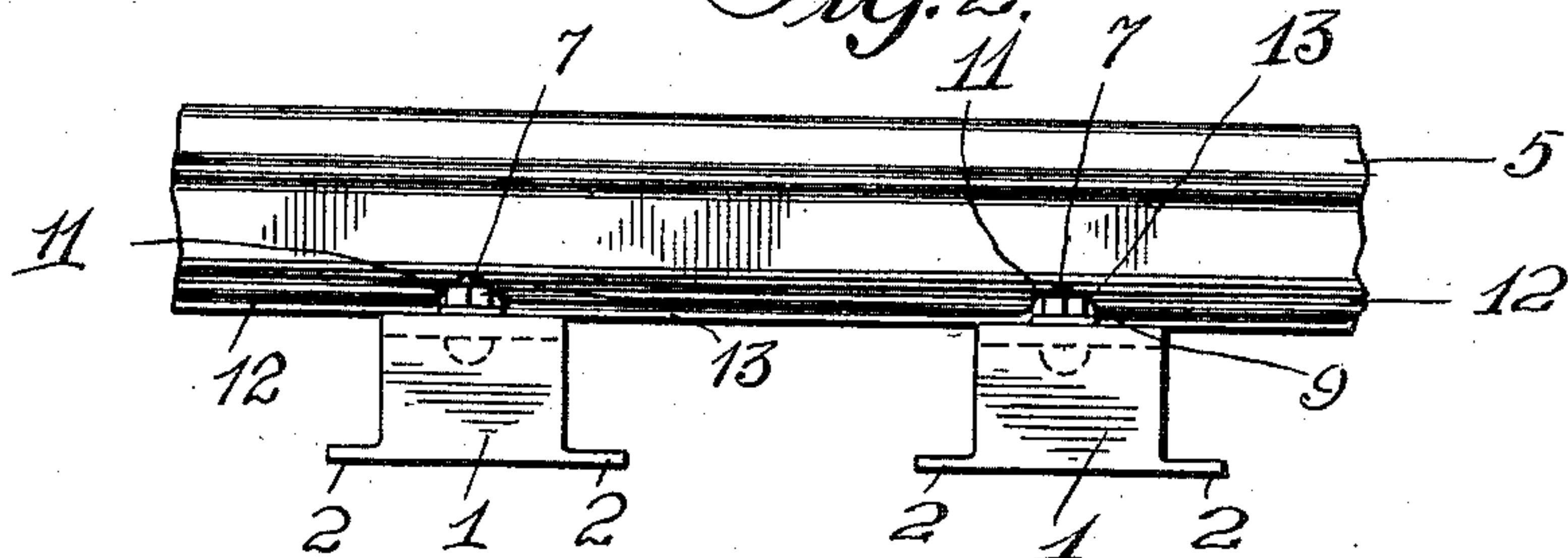


Fig. 3.

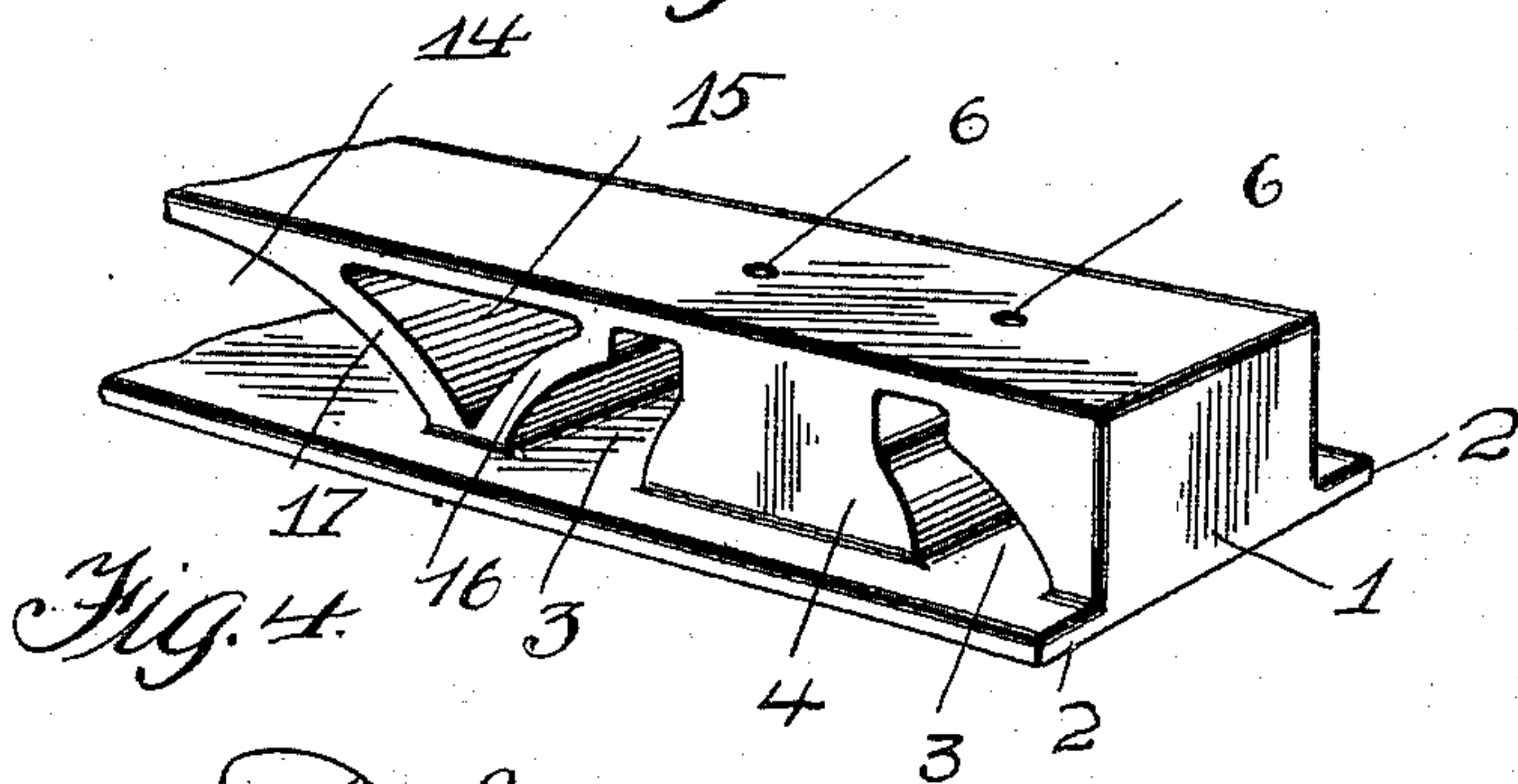
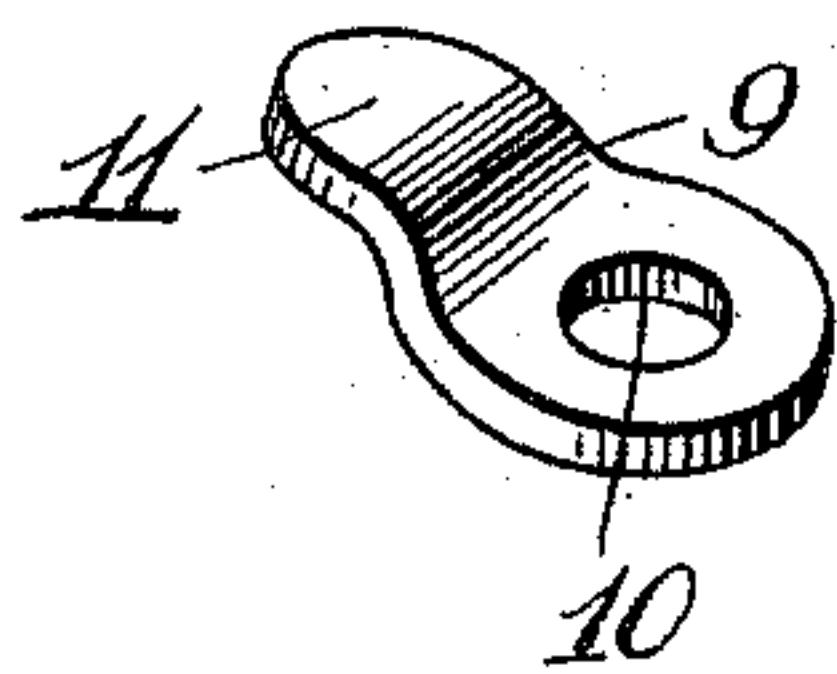


Fig. 4.



WITNESSES

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ROBERT P. HOCTER, OF PITTSBURG, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

995,140.

Specification of Letters Patent. Patented June 13, 1911.

Application filed February 13, 1911. Serial No. 608,303.

To all whom it may concern:

Be it known that I, ROBERT P. HOCTER, a citizen of the United States of America, residing at Homewood, Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to metallic ties and rail fasteners, and the objects of my invention are, first, to eliminate the use of wooden ties or sleepers and provide metallic ties that will firmly support a track; second, to furnish a metallic tie with a rail fastener that can be easily and quickly placed in position for positively holding rails thereon and prevent lateral displacement of the rails relatively to said tie; third, to provide a strong and durable metallic tie that can be anchored in the ballast of a roadbed, and fourth, to accomplish the above objects by a structure that can be easily manufactured, installed and used with less expense than the present type of wooden ties.

I attain the above objects by a mechanical construction that will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of a tie in accordance with my invention, Fig. 2 is an end view of the tie, Fig. 3 is a perspective view of a portion of the tie showing one end thereof, and Fig. 4 is a perspective view of a detached clip forming part of the rail fastener.

In the accompanying drawing the reference numeral 1 denotes a metallic oblong structure, rectangular in cross section, and having the lower edges thereof provided with longitudinal lateral flanges 2. The structure 1 adjacent to the ends thereof is provided with transverse openings 3 providing a solid supporting member 4 beneath each rail 5 placed upon the tie. The structure 1 is provided with vertical openings 6 establishing communication between the up-

per surface of the structure 1 and the openings 3, these openings accommodating the shanks 7 of bolts 8 employed for retaining clips 9 in engagement with the upper surface of the structure 1, said clips having openings 10 to receive the bolts 8 and overhanging portions 11 to engage the base flanges 12 of the rails 5. The bolts 8 and the clips 9 are held in engagement with the tie 1 by nuts 13 screwed upon the upper ends of the shanks 7. The openings 3 permit of the bolts being placed in position to hold the clips, which constitute the rail fastening means. The structure 1 intermediate the innermost openings 3 is cut away to provide a transverse segment-shaped opening 14 and transverse triangularly shaped openings 15, these openings forming curved webs 16 between the openings 3 and 15 and curved webs 17 between the openings 15 and 14, the last mentioned curved webs providing an arch upon the central base portion of the structure.

When the tie is located upon a suitable roadbed the ballast of the roadbed can enter the openings 3, 14 and 15 and thereby firmly anchor and hold the tie in position, while the rail fasteners prevent lateral and vertical displacement of the rails relative to the tie.

The tie in its entirety is made of strong and durable metal, also the rail fasteners thereof, and as the openings 3, 14 and 15 reduce the weight of the tie, it can be easily handled and tamped in position.

Having now described my invention what I claim as new, is:—

A metallic tie and rail fastener comprising a metallic oblong structure having each lower longitudinal edge provided with a laterally-extending flange of the same length as the length of the structure, said structure provided in proximity to each end with a pair of transversely-extending openings one spaced from the other thereby providing a rail support in proximity to each end of said structure, the top wall of each of said transversely extending openings provided with a vertically disposed opening,

bolts arranged in said transversely-extending openings and projecting through said vertical openings, clips mounted upon the upper end of the bolts and adapted to retain the rails upon said rail supports, and
5 said structure further provided with a pair of transversely-extending triangular-shaped openings and a transversely-extending seg-

ment-shaped opening thereby providing an arch centrally of the structure. 10

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

ROBERT P. HOCTER.

Witnesses:

R. P. HOCTER, Sr.,

McKINLEY WISECANER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
