

F. J. BEAUDETTE & F. L. SNOWDON.

STEEL RAILROAD TIE.

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912,785.

Patented Feb. 16, 1909.

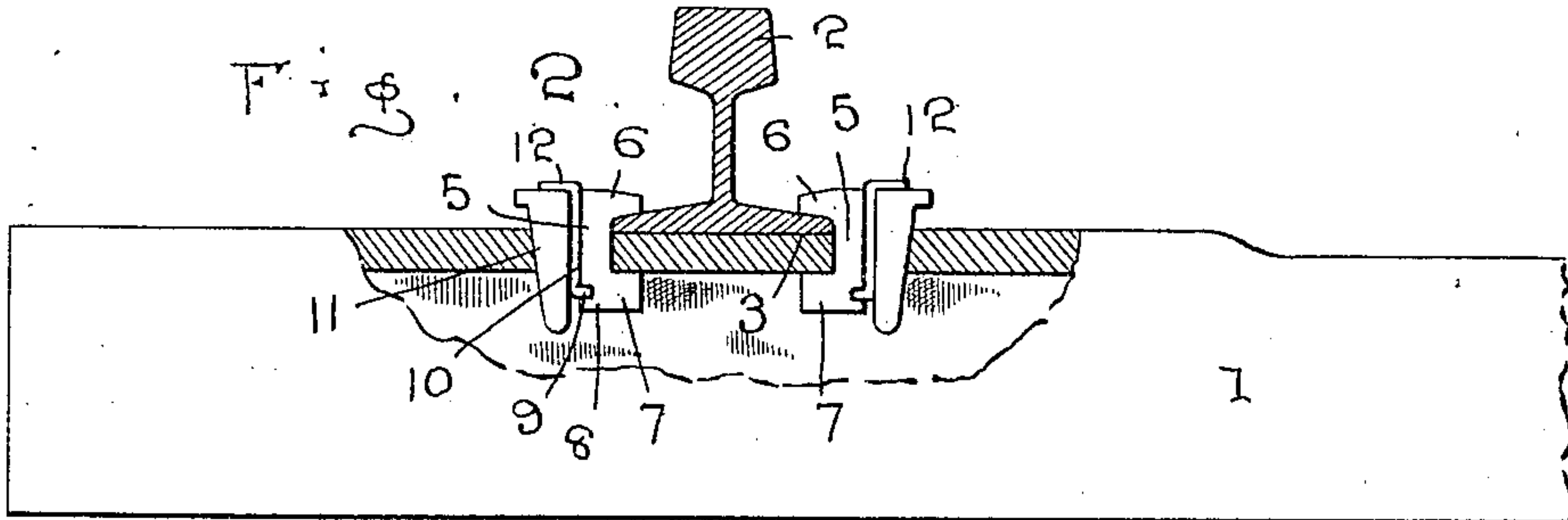
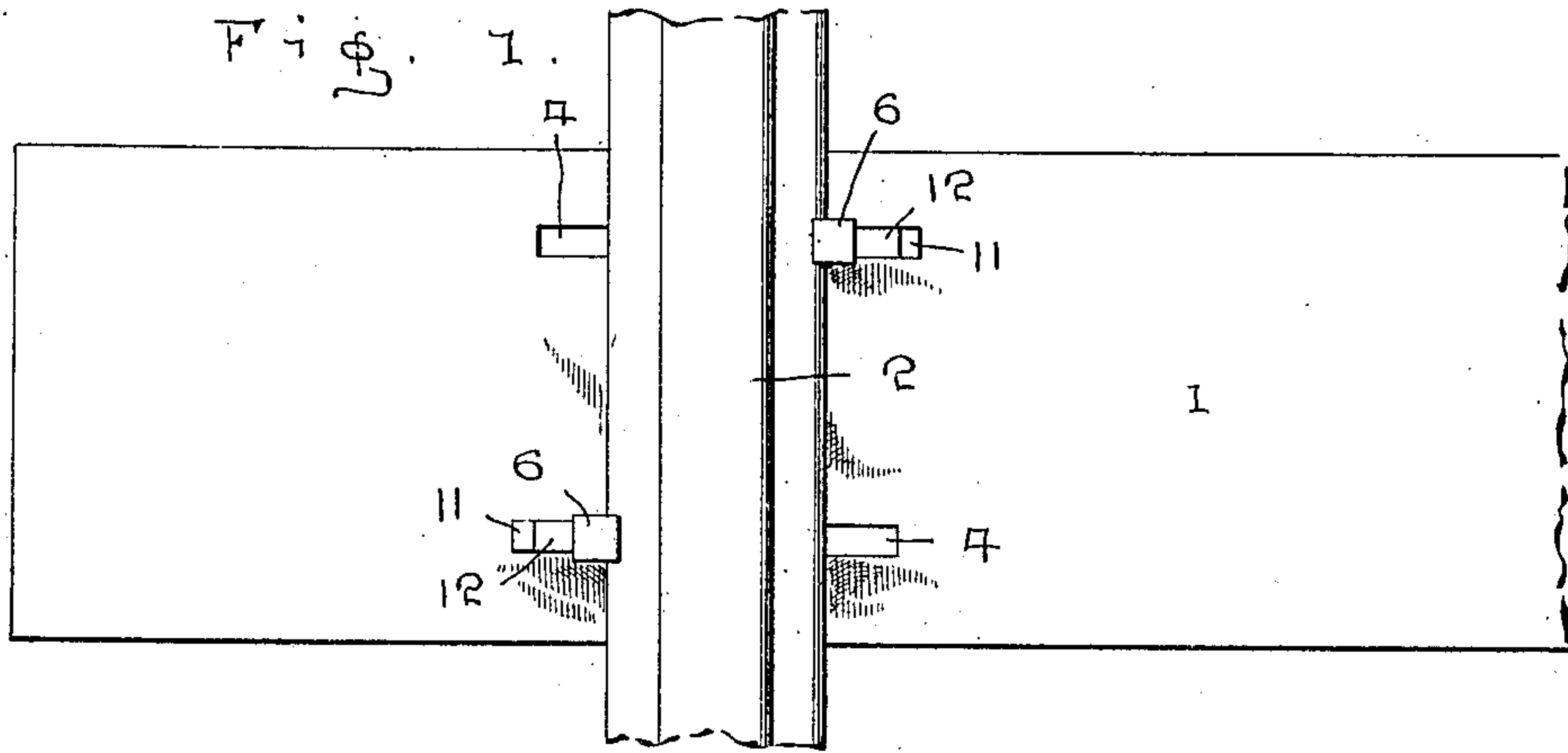


Fig. 3.

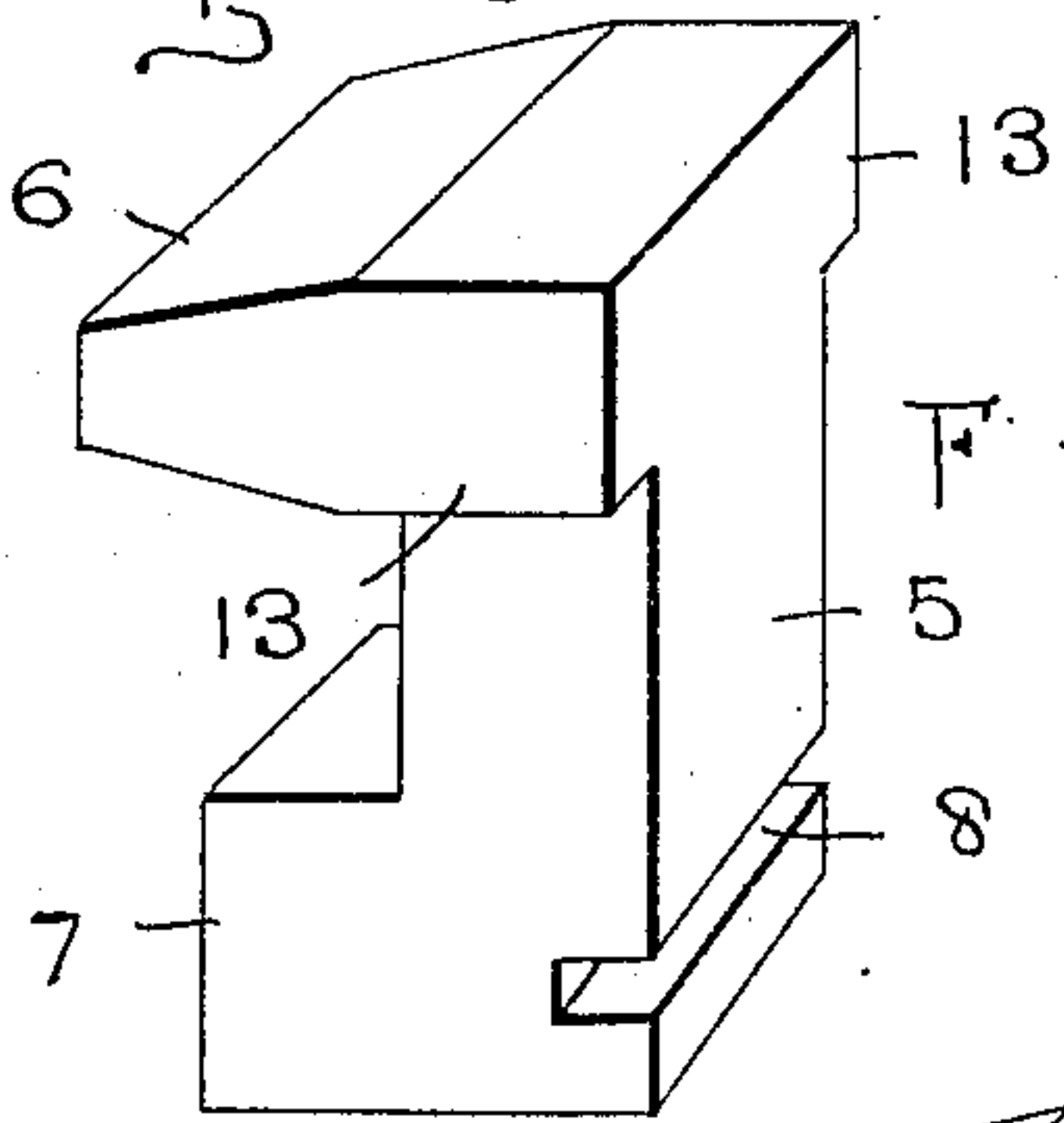


Fig. 4.

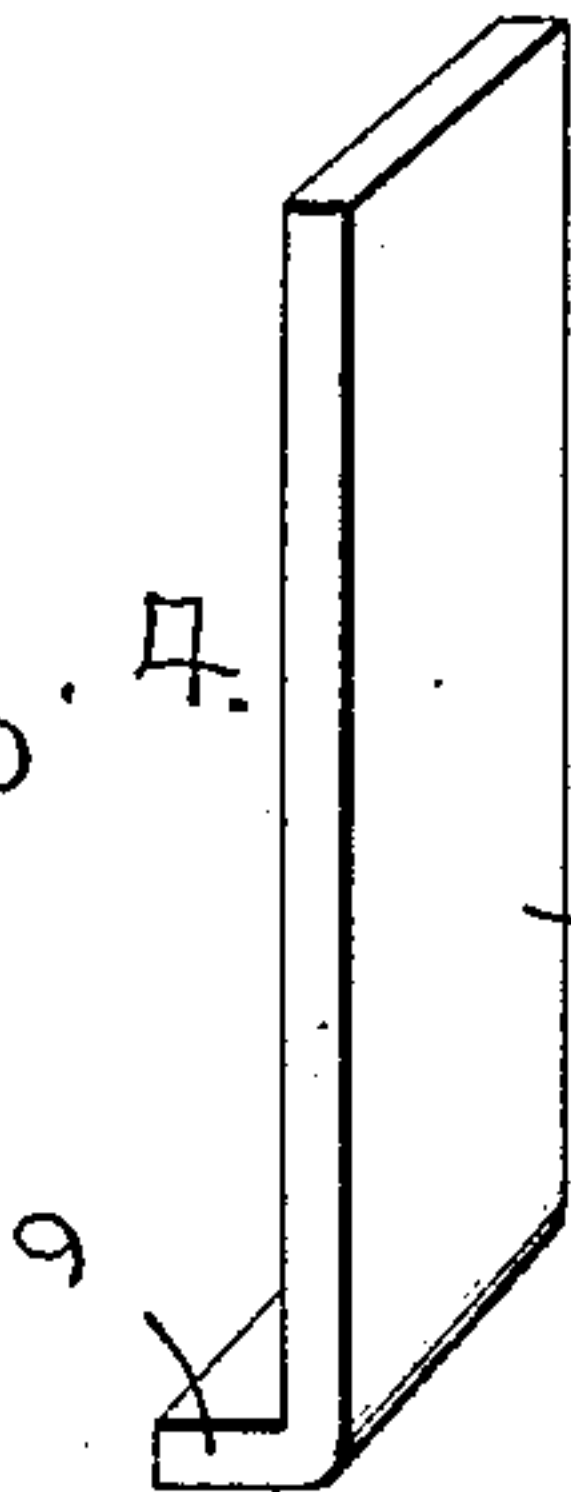


Fig. 5.

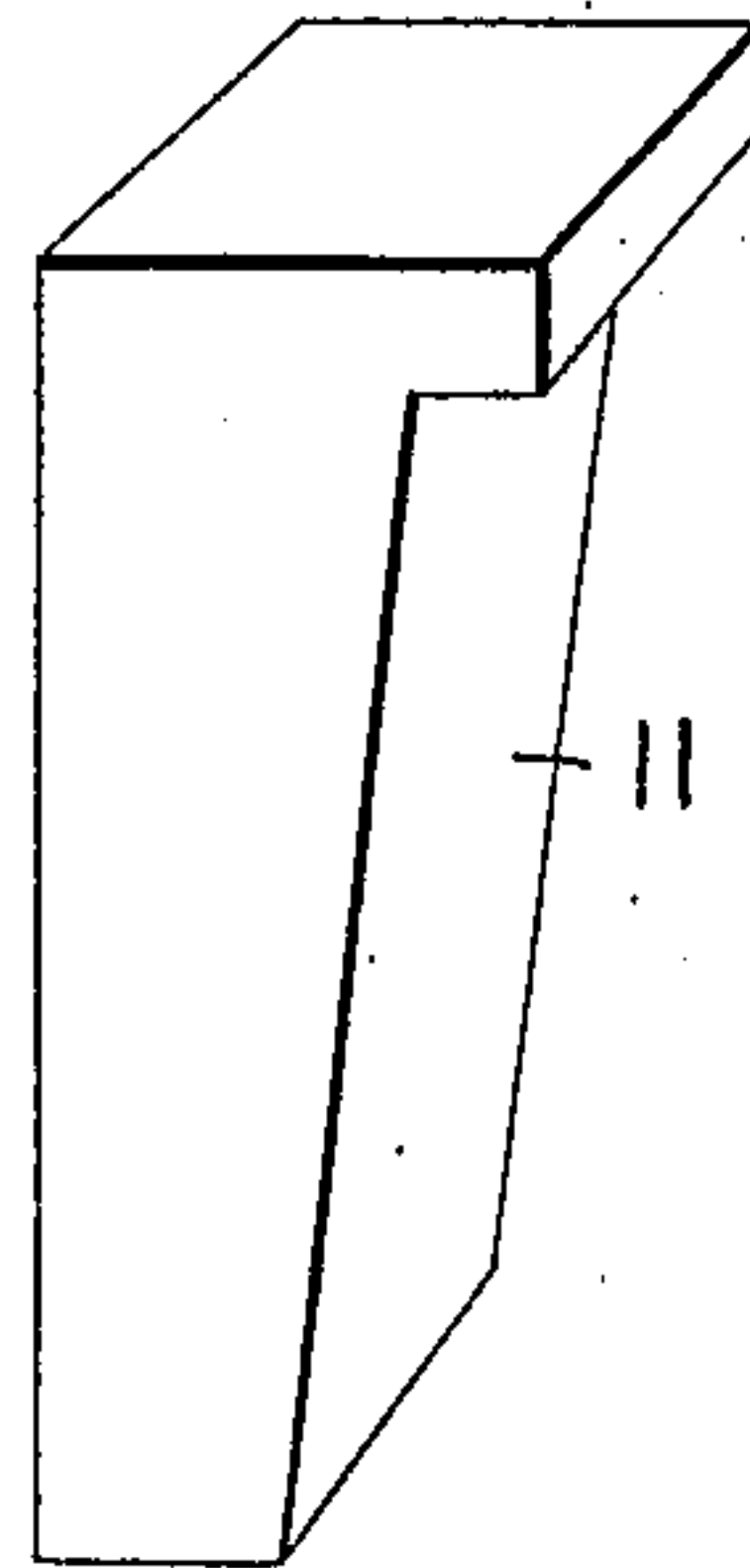


Fig. 6.

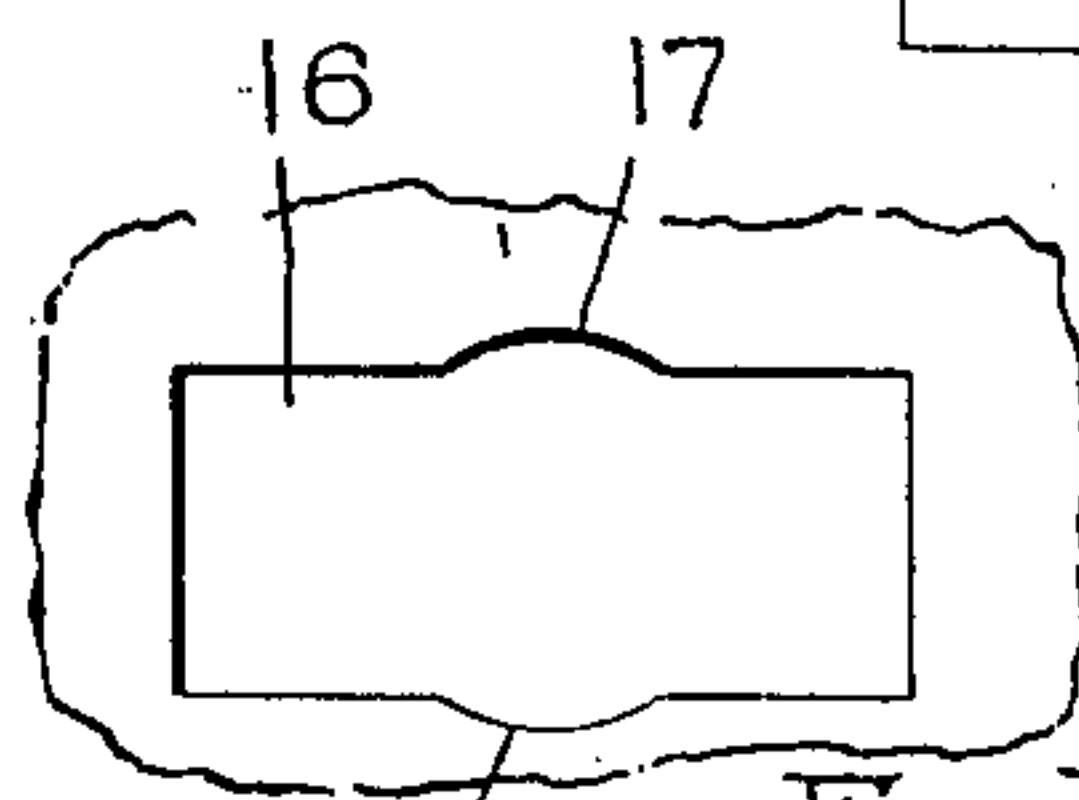
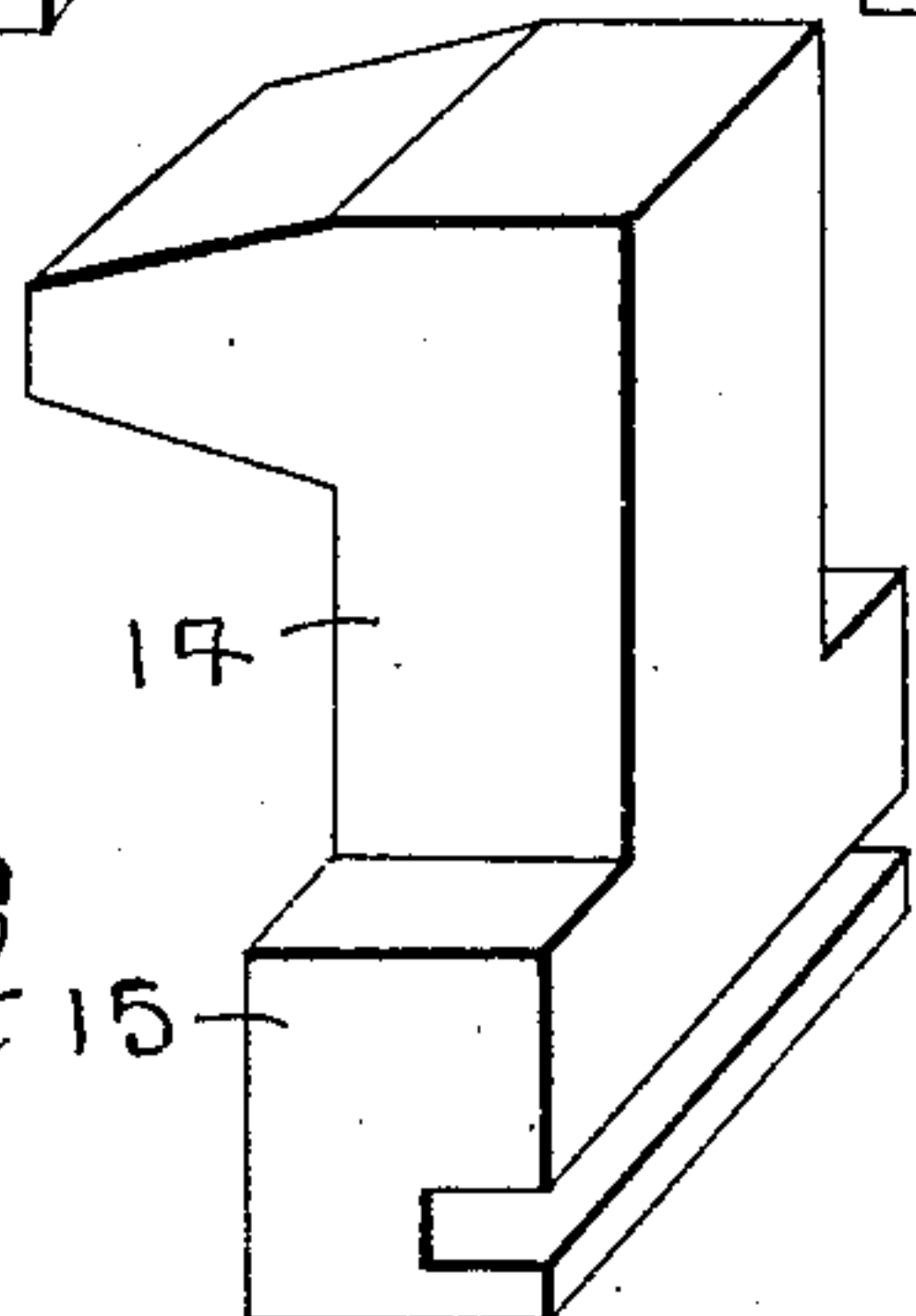


Fig. 7.

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UNITED STATES PATENT OFFICE.

FREDERICK J. BEAUDETTE AND FRANK L. SNOWDON, OF QUINNESEC, MICHIGAN.

STEEL RAILROAD-TIE.

No. 912,785.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, FREDERICK J. BEAUDETTE and FRANK L. SNOWDON, citizens of the United States, residing at Quinnesec, in the county of Dickinson and State of Michigan, have invented certain new and useful Improvements in Steel Railroad-Ties; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in railway ties and fasteners therefor, and it is primarily an object of the invention to provide a novel device of this character which will permit the ready application of the rail.

It is also an object of the invention to provide a novel device of this character including a positive fastening means for the rail.

Furthermore, the invention has for its object to provide a fastening means for the rail including a rail-engaging member, a wedge acting in conjunction therewith, and means acting in conjunction with the rail-engaging member, and the wedge, for holding the wedge against displacement.

It is also an object of the invention to provide a novel device of this character which will be simple in construction, efficient and advantageous in practice, and comparatively inexpensive to manufacture.

With the above and other objects in view, the invention consists in the details of construction, and in the novel arrangement and combination of parts, to be hereinafter more particularly referred to.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of the specification, wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a view in top plan of a fragment of a tie showing a rail secured thereto. Fig. 2 is a view partly in side elevation, and partly in section of a tie and rail secured thereto. Fig. 3 is an enlarged view in perspective of the rail-engaging member detached. Fig. 4 is an enlarged view in perspective of the wedge-retaining member, and Fig. 5 is an enlarged view in perspective of the wedge. Fig. 6 is a view in perspective detached, of a modified form of rail-engag-

ing member, and Fig. 7 is a fragmentary view in top plan of a tie illustrating the form of opening therein used when the rail-engaging member illustrated in Fig. 6, is employed.

In the drawings, 1 denotes a tie formed of any desired material, said tie being of approximately the same dimensions as the ties ordinarily used, said tie being hollow. By having the tie hollow, it serves as a culvert, and thereby reduces to a minimum the possibility of wash-outs incident to heavy rains. The rail 2 has its face resting in a depressed portion 3, in the top of the tie, said depressed portion 3 holding the rail against spreading, as is thought to be obvious. The top of the tie is also provided with the openings 4, said openings being positioned adjacent the depressed portion 3, and in close proximity to the longitudinal edges thereof. Insertibly within the openings 4 is the rail-engaging member 5, which has a head portion 6, which overlies the base of the rail, as is particularly shown in Fig. 2. It is also provided with the lower projection 7, which contacts with the under surface of the top of the tie. The outer face of the body 5 adjacent its lower end, is provided with a transverse groove 8, into which projects the angular end 9 of a key 10, said key 10 being formed of a yieldable or bendable material.

In applying the device, the engaging member 5 is inserted within an opening 4, but previous to this insertion the angular end of the key 10 is inserted within the groove 8, as is thought to be obvious. After this insertion, the wedge 11 is forced within the opening 4, said wedge causing the retaining member 5 to snugly bear against the base of the rail and effectually hold it in position. After the wedge has been properly driven the projected end of the key 10 is bent as at 12, over the top of the wedge and thereby effectually holds the wedge against displacement. As shown in Fig. 3, it has also been found of great advantage to extend the head 6 of the engaging member 5 beyond said body laterally, as indicated at 13. This arrangement affords a larger area of contact with the base of the rail, as is believed to be obvious.

In Fig. 6 is shown a slightly modified form of rail-engaging member, this member having the laterally extended portions 14 at the base thereof, and the forwardly ex-

tending projection 7 as in Fig. 3, is omitted. When this latter form of rail-engaging member is employed it is necessary that the longitudinal edges of the opening 16 be enlarged as at 17, in order that the member 14 may be readily inserted through said opening.

In practice it has been found necessary that only two of the fastening means need be used with the rail, said fastening means being in diagonal relation. Four openings however, are made in order to meet any possibility or contingencies that may arise.

We claim:

15 In combination with a hollow tie having

openings in a face thereof, of a fastening means insertible within said openings, said fastening means comprising a rail-engaging means, said rail-engaging means having a groove, a key extending within said groove, and a wedge, said key extending above the wedge to contact with the top thereof.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

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Witnesses:

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