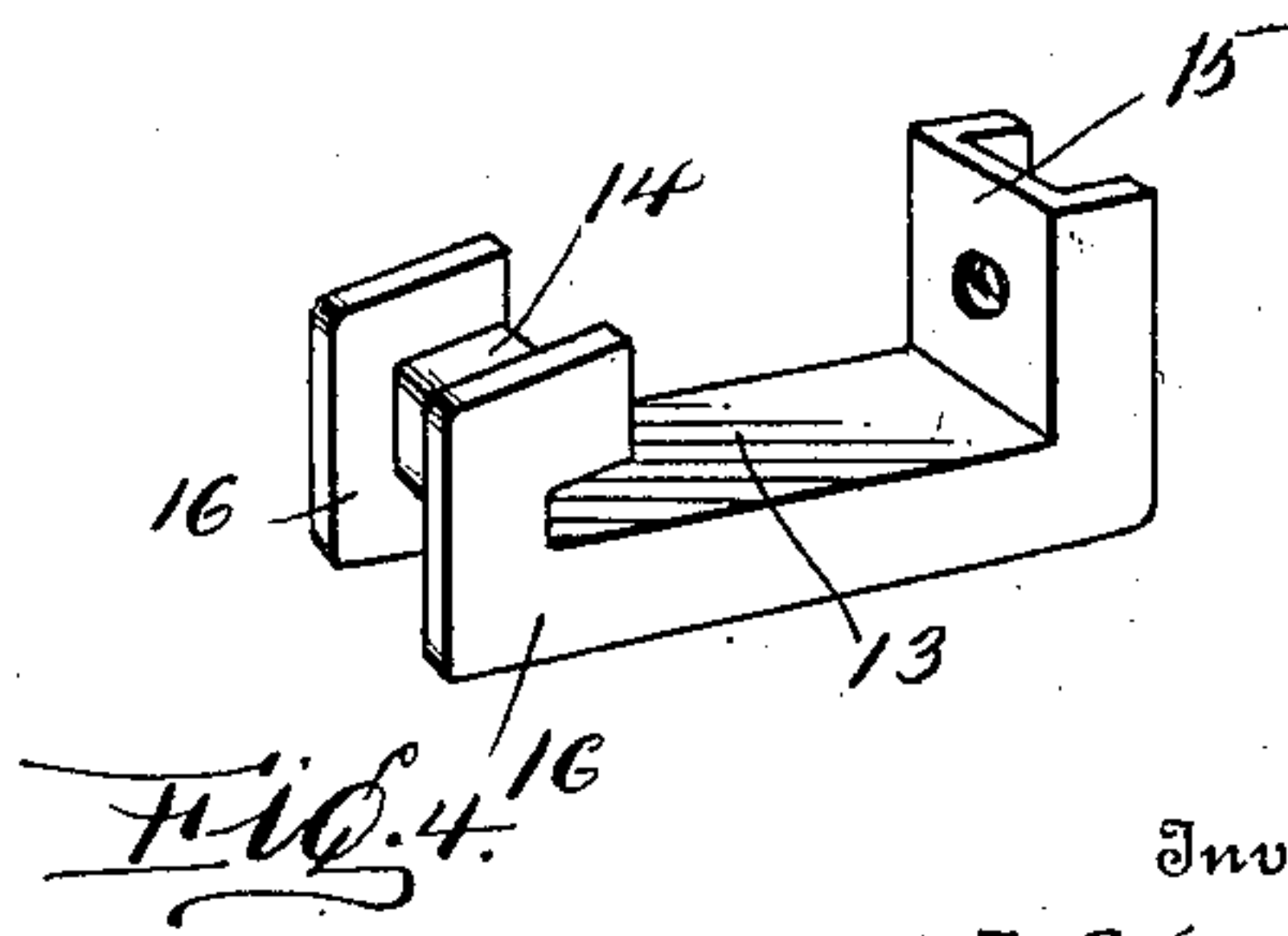
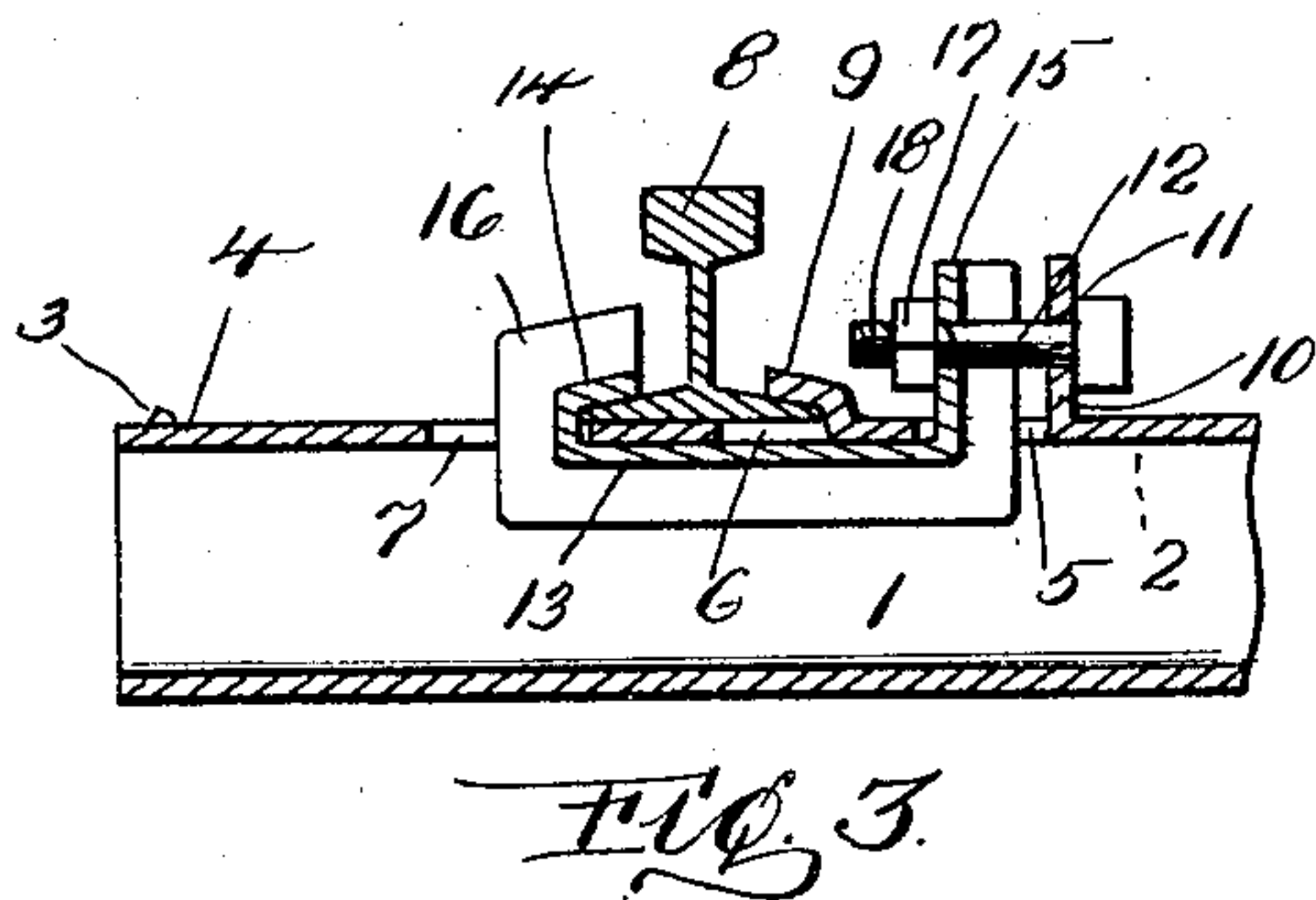
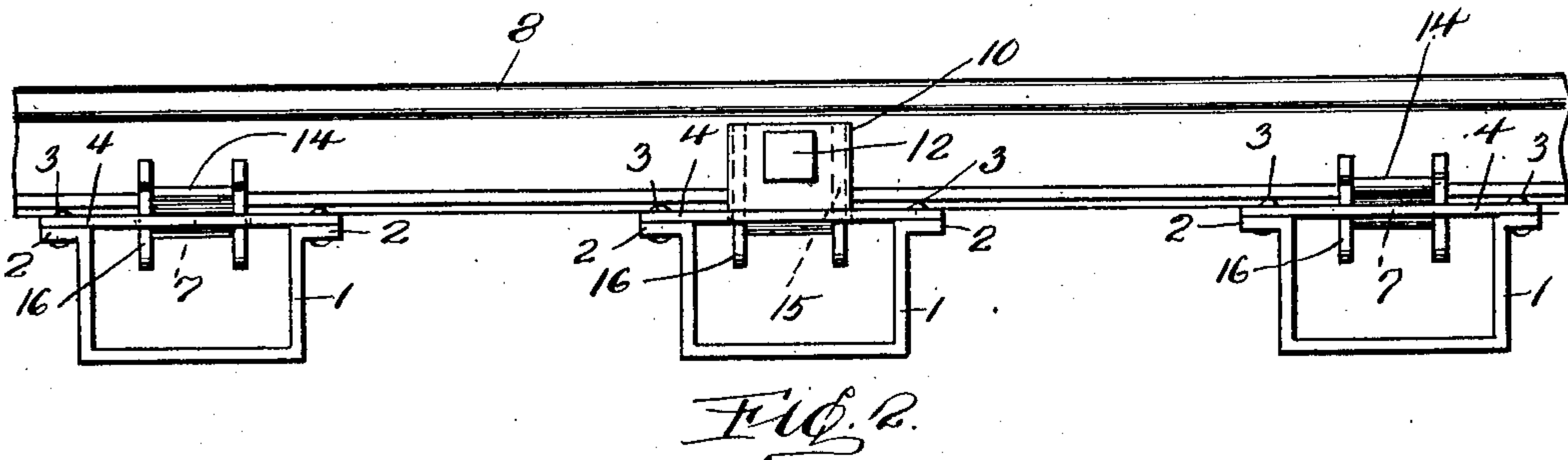
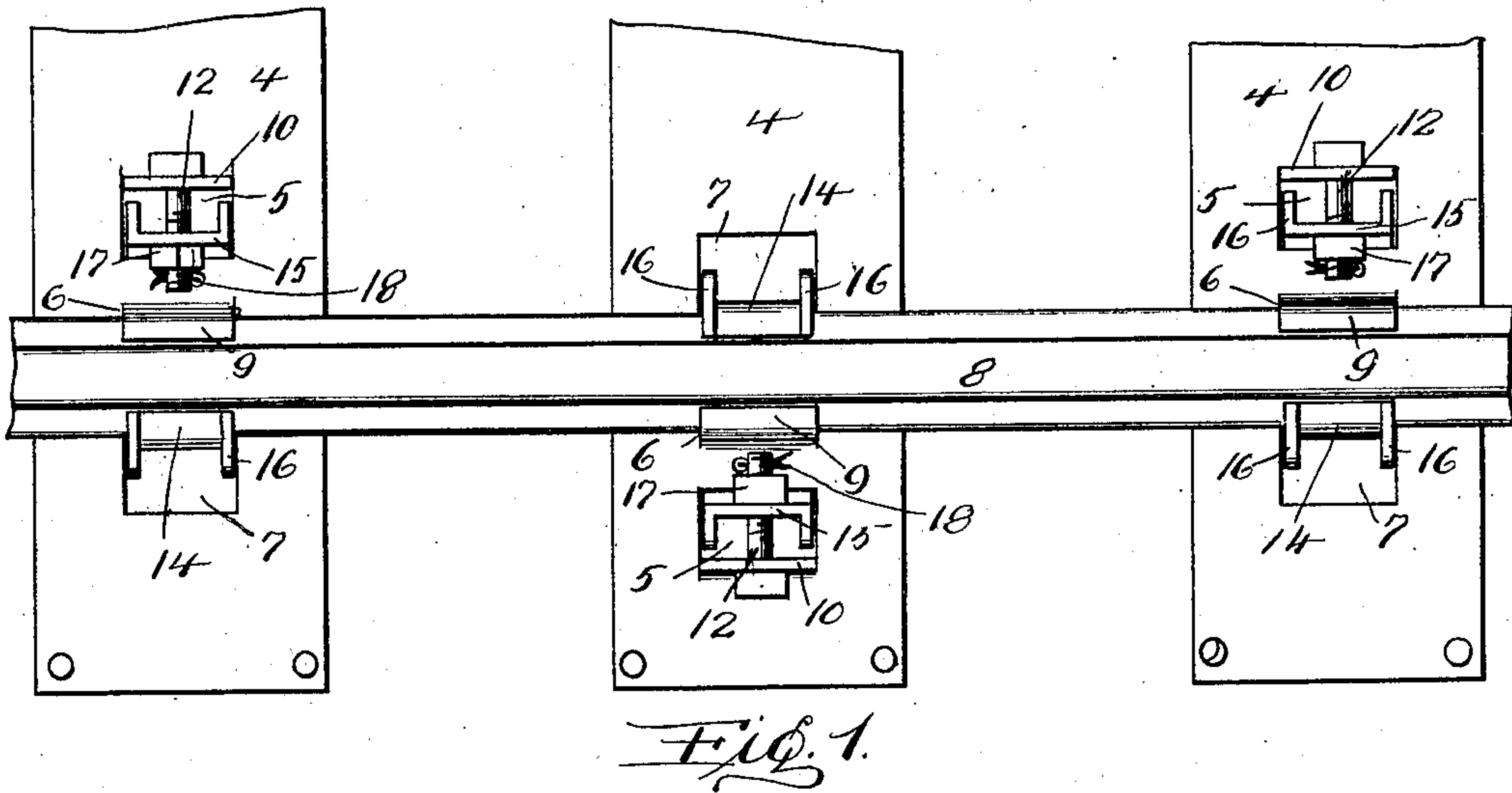


No. 891,010.

PATENTED JUNE 16, 1908.

M. L. SAGER.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED DEC. 8, 1907.



Inventor

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Witnesses

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MARTIN L. SAGER, OF BRADDOCK, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO MICHAEL P. CLOHESSY, OF BRADDOCK, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

No. 891,010.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed December 6, 1907. Serial No. 405,448.

To all whom it may concern:

Be it known that I, MARTIN L. SAGER, a citizen of the United States of America, residing at Braddock, 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 a metallic tie and rail fastener, and the objects of the invention are, first, to provide a strong and durable metallic tie, that can be used in lieu of the present type of wooden ties; second, to provide a simple and inexpensive tie that can be easily ballasted in a road bed and prevent "wash-outs;" third, to provide a novel rail fastener which will prevent the spreading of rails; and fourth, to provide a tie that will form a substantial support for rails, and will be free from injury by said rails. I attain these objects by a novel tie and rail fastener that will be presently described and then specifically pointed out in the appended claims.

Referring to the drawings forming a part of this specification, Figure 1 is a plan of portions of three ties constructed and laid in accordance with my invention, Fig. 2 is an end view of the same, Fig. 3 is a longitudinal sectional view of a portion of the tie, illustrating the rail fastener thereon, and Fig. 4 is a perspective view of a rail clamp.

To put my invention into practice, I provide a tie 1 of substantially channel-shape form having lateral flanges 2. Attached to said flanges by rivets 3 is a plate 4. Contiguous to the ends of said plate, I provide the same with openings 5, 6 and 7, the material between the openings 6 and 7 providing a seat for a rail 8. The openings 5 and 6 are formed by cutting the plate 4 and bending the material upwardly, this material providing a fixed rail clamp or fastener 9 and a bolt lug 10, the former being bent to overlie the base flange of the rail 8, and said lug 10 is apertured, as at 11, to accommodate a bolt 12.

The rail-clamp 9 which is formed integral with the tie engages the rail base at one side of the rail and the rail base at the opposite side of the rail is engaged by rail-clamp 14 carried on one end of a clamp-member 13, the said rail clamp 14 projecting through the opening 7 in the top plate 4 of the tie. The body of the clamp-member 13 lies under-

neath the top plate 4 of the tie, and has its opposite end extending upwardly at right angles to the body to form an arm 15 which projects through the opening 5 in the top plate 4 of the tie. This arm 15 is provided with an aperture which alines with the aperture in the lug 10, and these apertures receive a bolt 12 by means of which the clamp-member is securely held in position.

After a rail has been placed upon the ties with one side of the base flange underneath the rail-clamp or fastener 9, the clamp member 13 is placed in the end of the tie and elevated, the rail-clamp 14 extending upwardly through the opening 7 to engage the rail 8, while the arm 15 extends upwardly through the opening 5 to receive the bolt 12. After the nut 17 has been screwed upon the bolt, a cotter pin 18 is passed through the end of the bolt, to prevent the nut 17 from becoming detached therefrom.

In the laying of a track, I preferably arrange the ties as shown in Figs. 1 and 2 of the drawings, whereby the bolt connections between the ties and the clamps will be alternate or staggered.

I reserve the right to make such changes in the structural details as are permissible by the appended claims.

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

1. In a metallic tie and rail fastener, the combination with a rail, of an oblong channel-shaped structure having lateral flanges, a plate mounted upon said structure and secured to said flanges, said plate being provided with openings, a rail-clamp formed by the material from one of said openings, an apertured lug formed from the material of another of said openings, a clamp-member mounted in said tie, a rail-clamp carried by one end of said clamp member for holding said rail in engagement with the first mentioned rail-clamp, said clamp member having an upwardly-extending apertured arm at the other end thereof, a bolt passing through said apertured lug of the tie and the apertured arm of said clamp, a nut screwed upon said bolt and a cotter pin for holding said nut.

2. In a metallic tie and rail fastener, the combination with a rail, of an oblong channel-shaped structure having lateral flanges, a plate mounted on said structure and secured to said flanges, said plate being provided

with openings, a rail-clamp formed by the material from one of said openings, an apertured lug formed from the material of another of said openings, a clamp-member 5 mounted in said tie, a rail-clamp carried by one end of said clamp member for holding said rail in engagement with the first mentioned rail-clamp, said clamp member having an upwardly-extending apertured arm at its 10 other end, a bolt passing through said lug and the apertured arm of said clamp, and a nut screwed upon said bolt.

3. In a metallic tie and rail fastener, the combination with a rail, of an oblong channel-shaped structure having lateral flanges, a 15 plate mounted on said structure and secured to said flanges, said plate being provided

with openings, a rail-clamp formed by the material from one of said openings, an apertured lug formed from the material of another of said openings, a clamp-member 20 mounted in said tie, a rail-clamp carried by one end of said clamp member for holding said rail in engagement with the first mentioned rail-clamp, said clamp member having an upwardly-extending apertured arm at 25 its other end, and means for securing said clamp member to said apertured lug.

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

MARTIN L. SAGER.

Witnesses:

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C. A. RENZIEHAUSEN.