

(No Model.)

J. MOSER & E. MOECKEL.
RAILROAD TIE.

No. 465,874.

Patented Dec. 29, 1891.

Fig. 1.

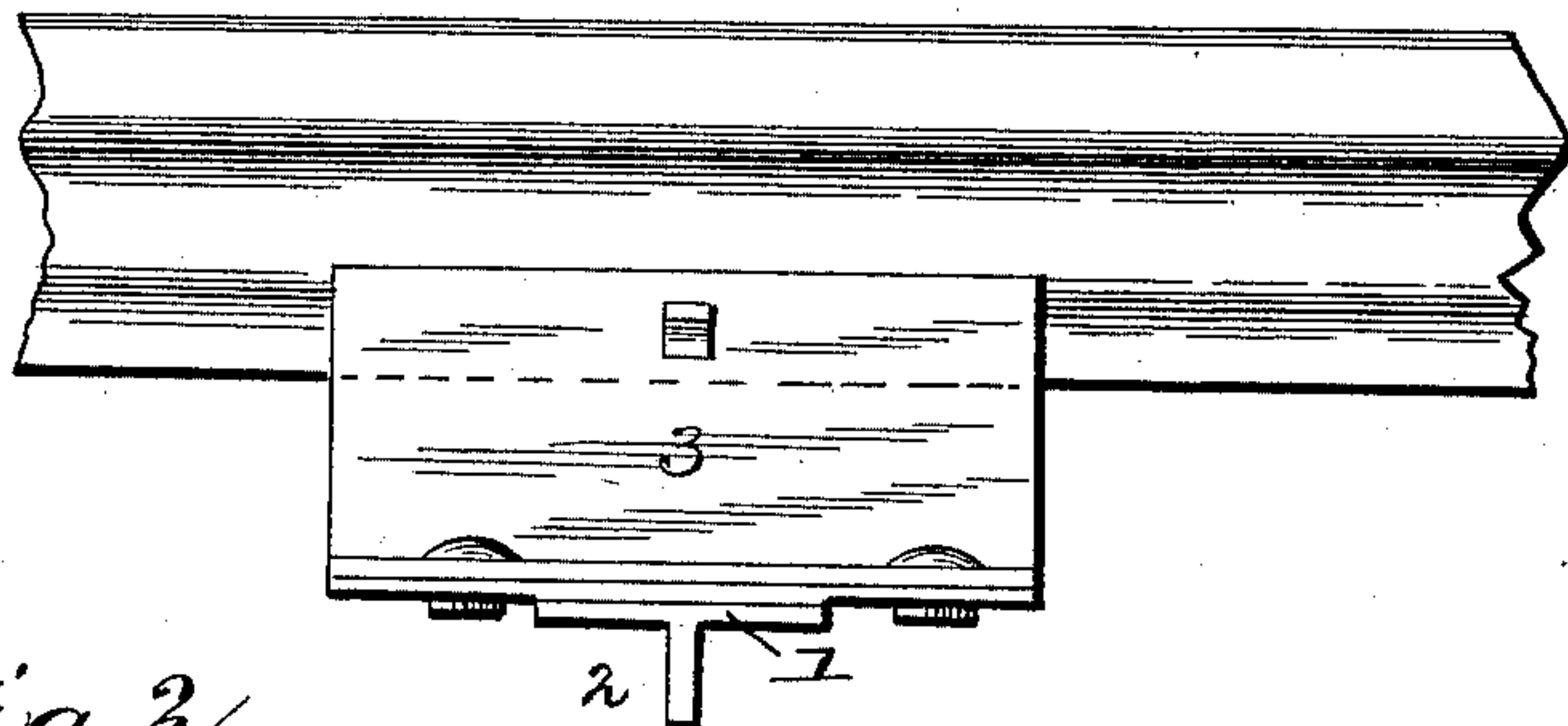


Fig. 2.

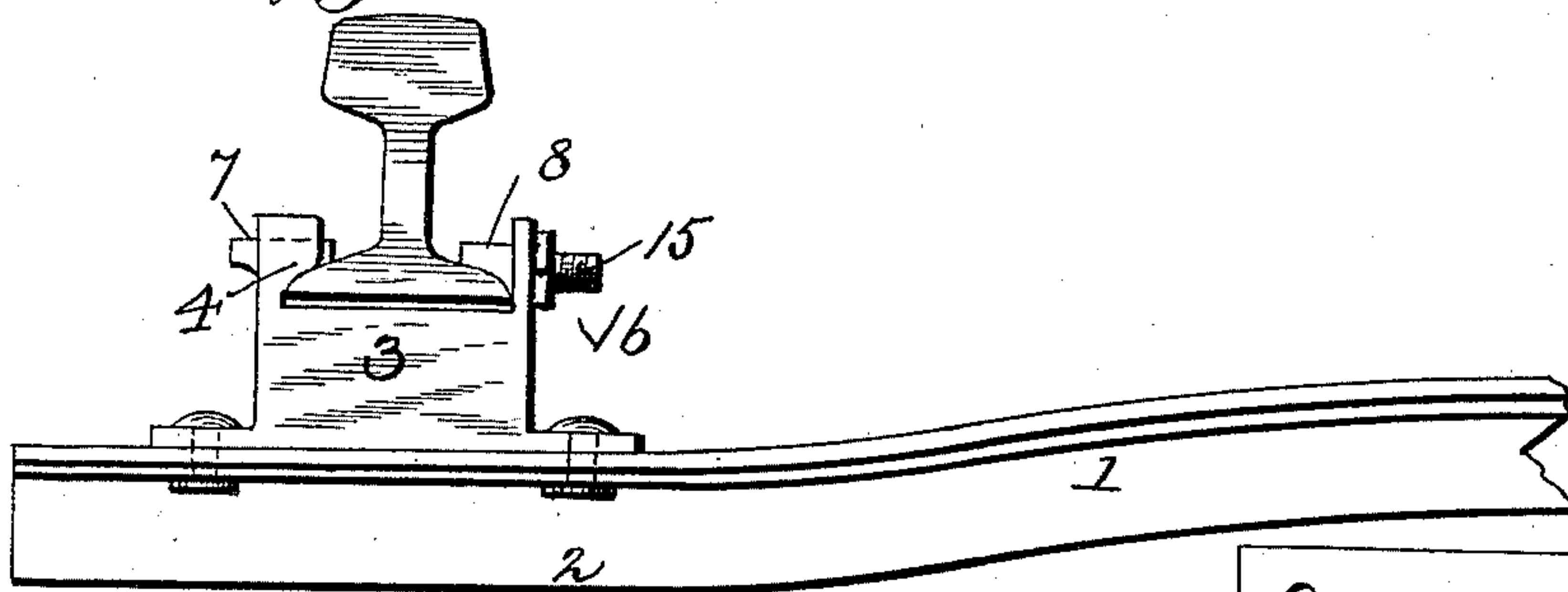


Fig. 3.

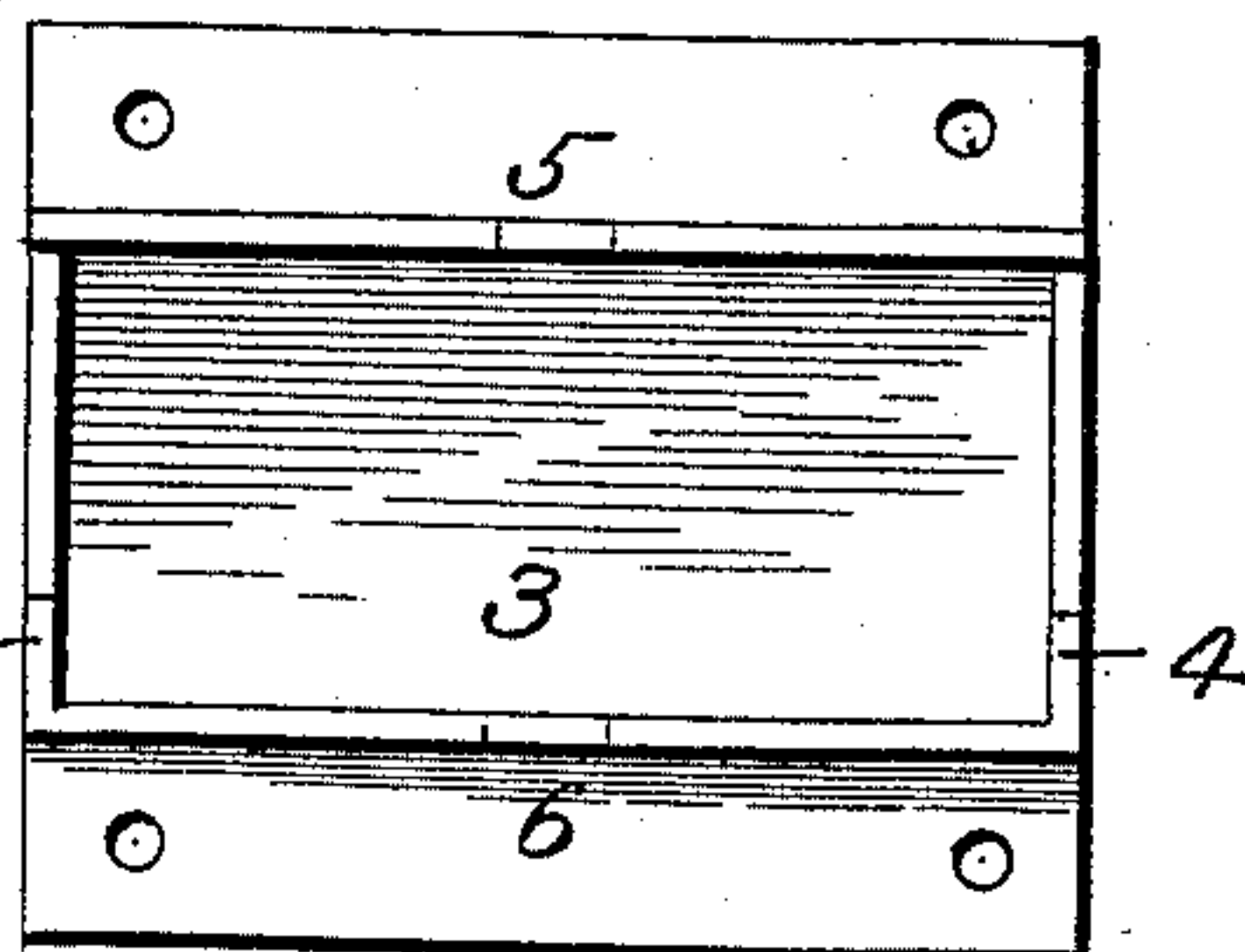
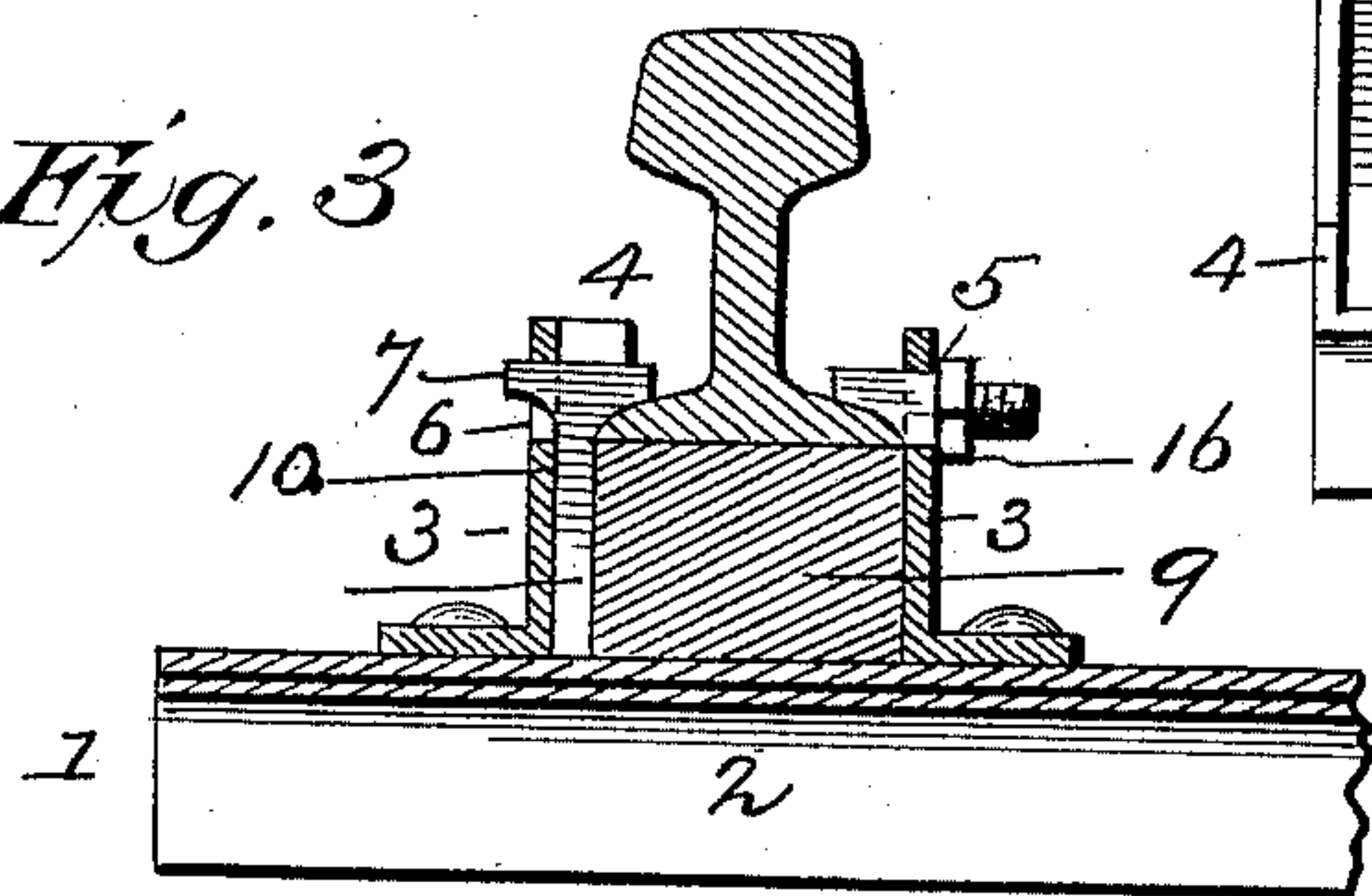


Fig. 4.

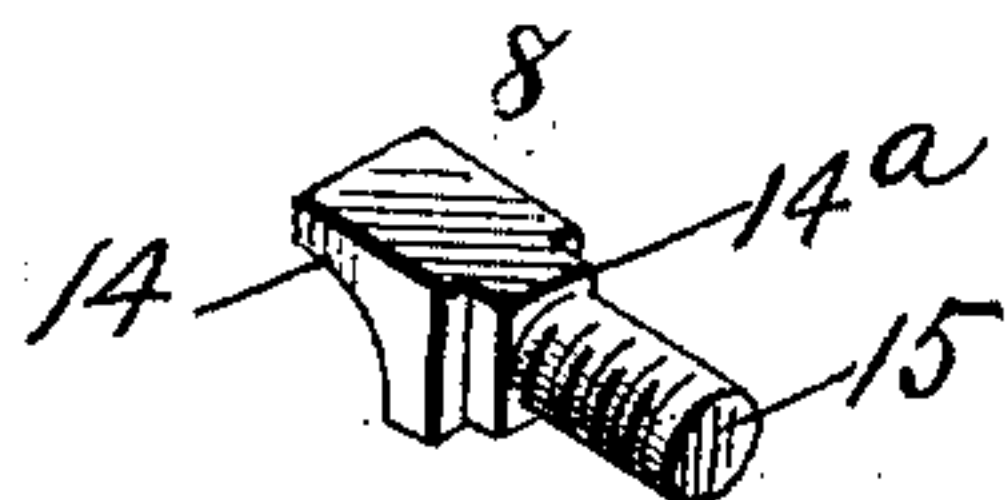
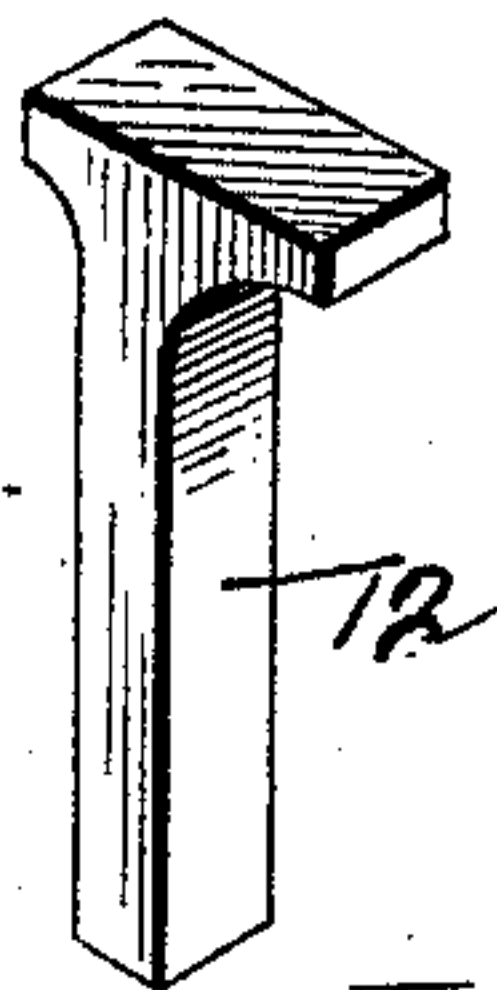


Fig. 5.



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JOHN MOSER AND ERNST MOECKEL, OF ASHLAND, WISCONSIN.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 465,874, dated December 29, 1891.

Application filed February 16, 1891. Serial No. 381,588. (No model.)

To all whom it may concern:

Be it known that we, JOHN MOSER and ERNST MOECKEL, both residents of Ashland, in the county of Ashland and State of Wisconsin, have invented certain new and useful Improvements in Railroad-Ties; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to improvements in metallic railway-ties.

The object of the invention is to provide an improved tie for railways which shall possess superior advantages with respect to simplicity, durability, stability, and efficiency.

The invention consists in the novel construction and combination of parts hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is an end view of a railway-tie constructed in accordance with our invention. Fig. 2 is a side of the same, showing a rail in position. Fig. 3 is a sectional view of the same. Fig. 4 is a plan view of one of the boxes. Fig. 5 represents views of the securing-bolts detached.

In the accompanying drawings, the reference-numeral 1 designates the tie or sleeper, consisting of a rectangular metal plate of a sufficient length to extend across the roadway and project somewhat beyond the rails when the latter are secured in place. The ties are of any width and thickness found suitable or desirable, and are slightly arched or bowed intermediate of their ends, as shown in Fig. 1, so as to give proper adhesion to the road-bed and prevent lateral displacement. On the under side the ties are provided with central downwardly-projecting strengthening-ribs 2, extending from end to end thereof. Near each end, on the upper side, the ties are provided with upwardly-extending rectangular boxes 3, riveted or bolted thereto. The sides of these boxes extend somewhat above the ends thereof, and one side, preferably the outer, is provided with inwardly-projecting flanges forming ears 4. The extended sides

of the boxes are also provided with apertures 5 and 6 to receive retaining-bolts 7 and 8, hereinafter described.

The numeral 9 designates a block of rubber, papier-maché, wood, or other suitable elastic material. When made of wood, they should be impregnated with pitch, tar, or other preservative compounds or compositions, which will also increase the adhesiveness of the rails. Upon one side each block is formed with a vertical groove 10, in which is inserted a headed bolt 7, said head projecting inwardly and outwardly, so as to fit over the rail-flange and in the aperture 6, respectively. The aperture 5 upon the opposite side of the block is designated to receive the bolt 8, consisting of the rounded or beveled head 14, the square shoulder 14^a, and the screw-threaded shank 15.

In practice the road-bed is properly formed with a slight arch corresponding with the arch or curve of the tie and the ties laid thereon. The blocks, which project slightly above the beds of the boxes, are then placed therein and the rails placed in position by first inserting the outer flange under the ears 4 and then applying the bolts 7 and 8, the latter being secured by means of a nut 16.

From the above it will be seen that while the rail is securely held in place it can be readily removed when desired, and being entirely supported upon the blocks in the boxes the requisite elasticity will be provided to give the best results. The rail will also be supported above the snow, ice, mud, dust, and dirt of the road-bed.

Having thus described our invention, what we claim is—

1. The combination, with a metallic railway-tie, of the rectangular boxes near each end thereof, the sides of which extend upwardly beyond the ends, the inwardly-projecting ears at the ends of one of said sides, and the elastic blocks located in said boxes, substantially as described.

2. The combination, with a metallic railway-tie, of the rectangular boxes near each end thereof, the sides of which extend upwardly beyond the ends with apertures therein, the inwardly-projecting ears at the ends of one

of said sides, and the elastic blocks having vertical grooves upon one side, substantially as described.

3. In a railway-tie, the combination, with
5 the rectangular boxes having extended sides and apertures therein and the elastic blocks with vertical groove in one side, of the rails, the bolt 7, having inwardly and outwardly extending head, the bolt 8, having curved or
10 beveled head, angular shoulder, and screw-

threaded shank, and the nut 16, fitting on said shank, substantially as described.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

JOHN MOSER.

ERNST MOECKEL.

Witnesses:

JOHN HYNES,

R. C. MURRAY.