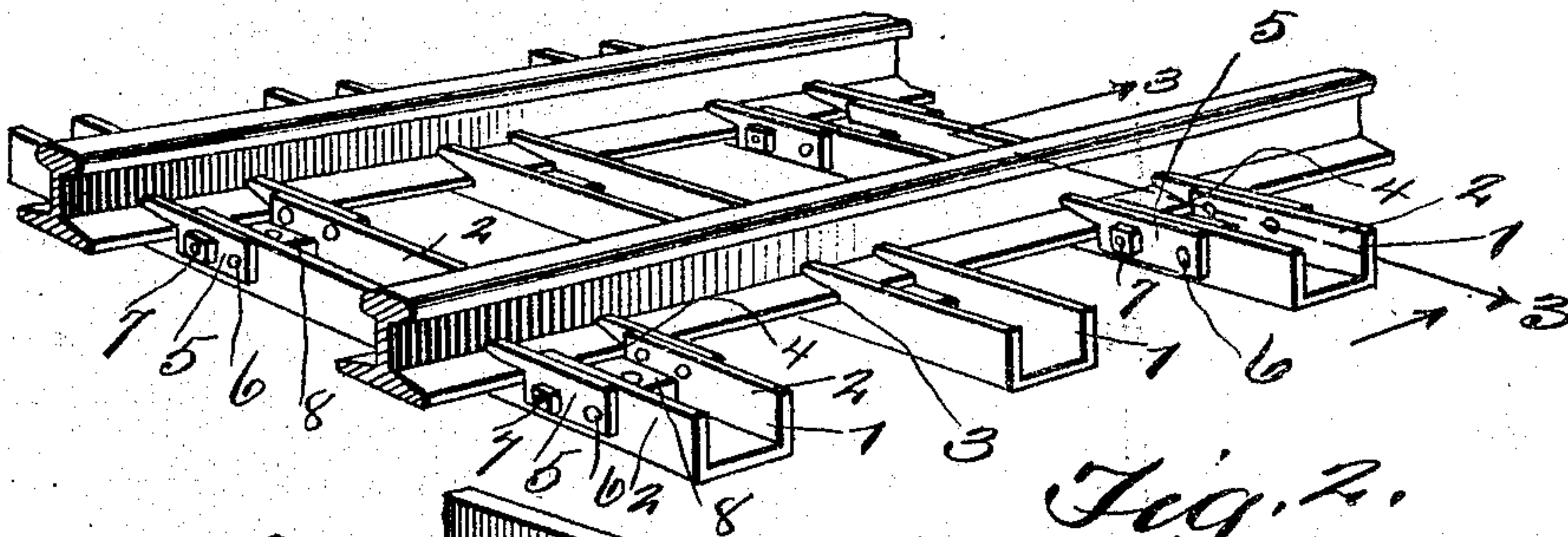


J. FENDERSON.  
METAL AND WOOD COMBINED RAILWAY TIE.  
APPLICATION FILED FEB. 11, 1907.

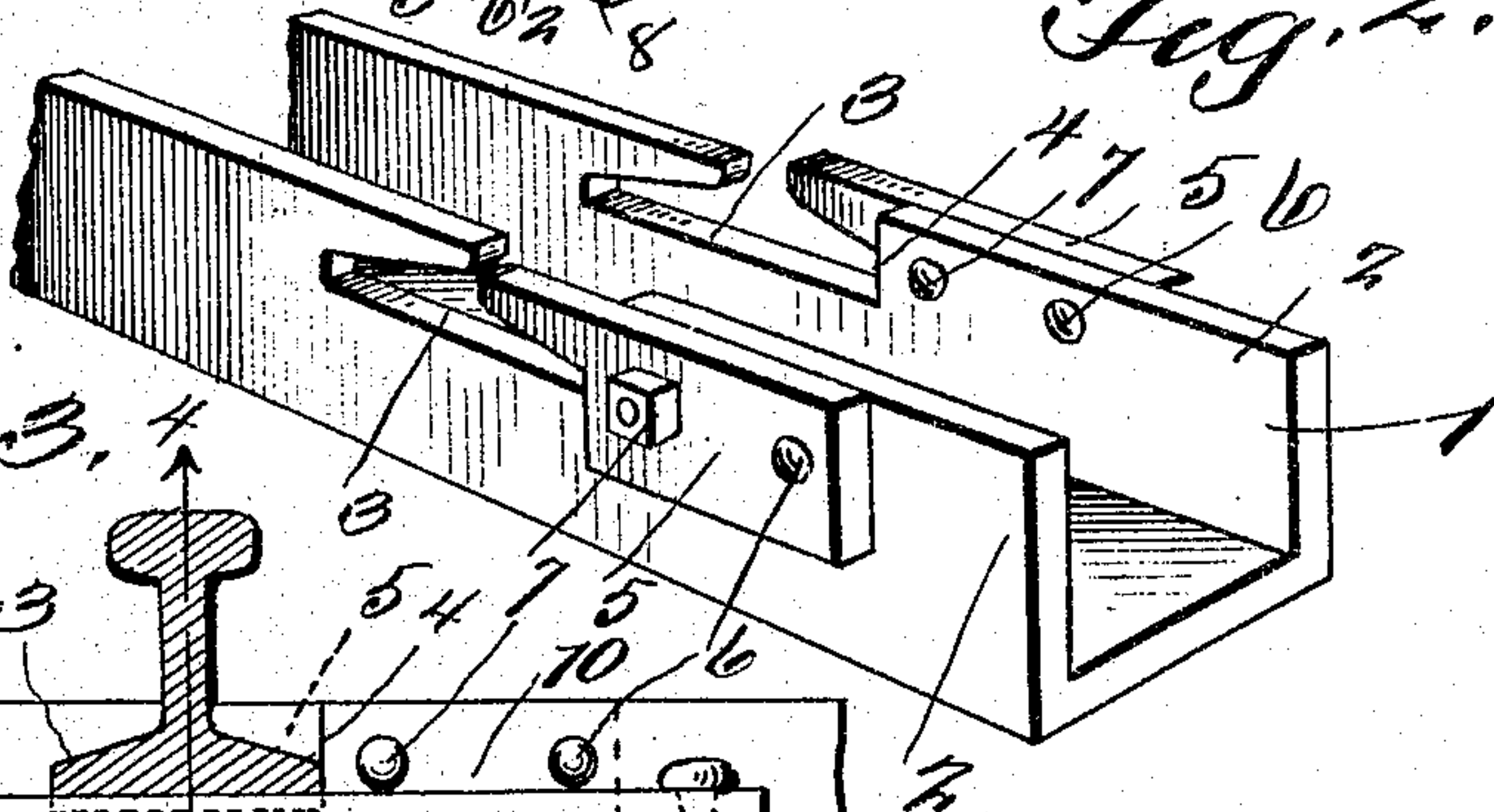
900,841.

Patented Oct. 13, 1908.

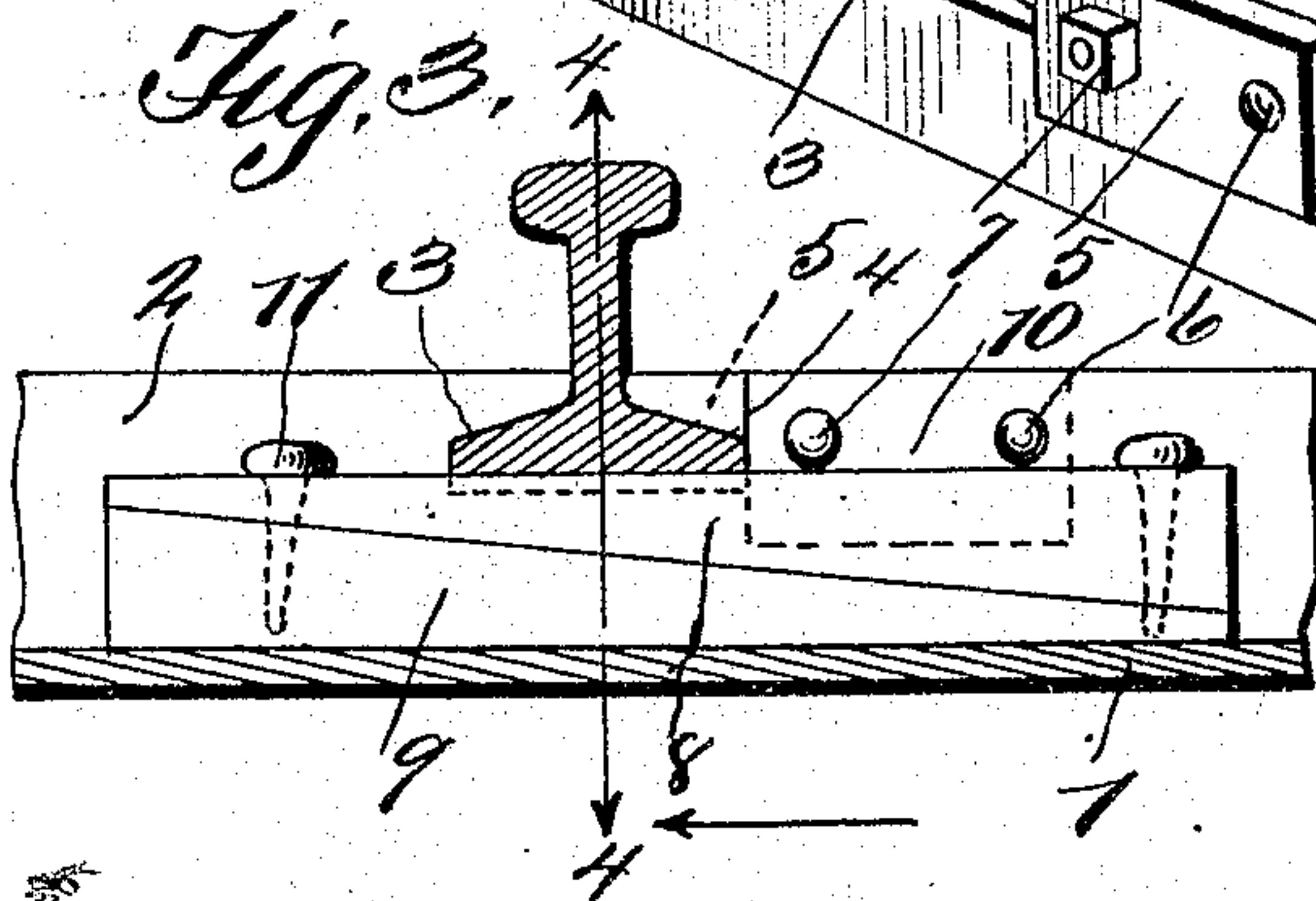
*Fig. 1.*



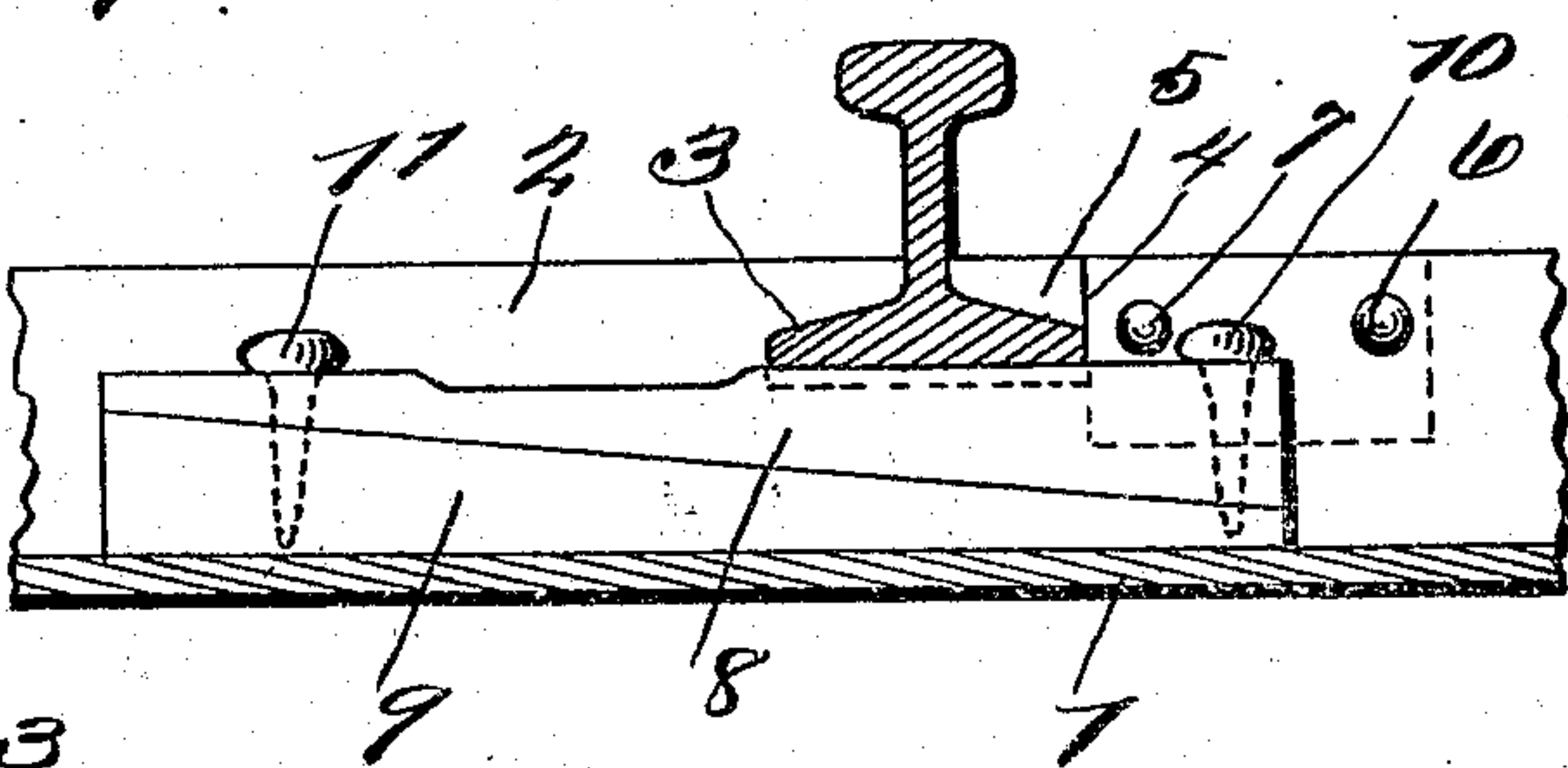
*Fig. 2.*



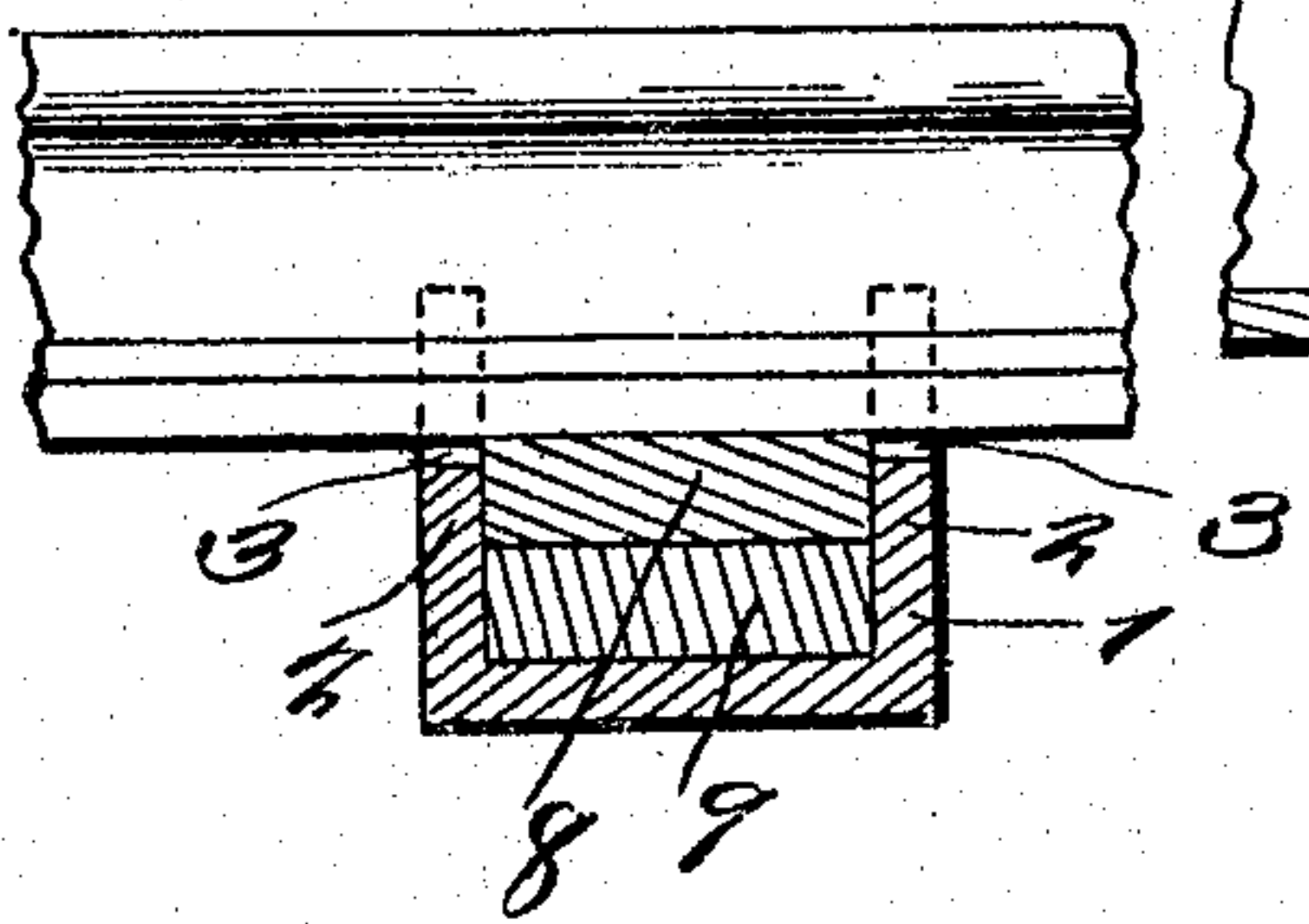
*Fig. 3.*



*Fig. 5.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

JOHN FENDERSON, OF OWEGO, NEW YORK.

METAL AND WOOD COMBINED RAILWAY-TIE.

No. 900,841.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed February 11, 1907. Serial No. 356,732.

*To all whom it may concern:*

Be it known that I, JOHN FENDERSON, a citizen of the United States, residing at Owego, in the county of Tioga and State of New York, have invented a new and useful Metal and Wood Combined Railway-Tie, of which this is a specification.

This invention pertains to a new and useful metallic railway tie, and the object thereof, is to provide a device of this character, which is simple and efficient in construction, and easily installed upon any railroad.

A further object of the invention, is to provide an elongated railway tie, U-shaped in cross section, and provided with fixed and pivotally mounted jaws, which, when the ties are properly placed, will be alternately arranged so that the fixed jaws will engage opposite sides of the rail.

A still further object of the invention is to provide wedge-shaped members to cooperate with one another, so as to provide a yielding seat for the rails. This seat is to prevent the rails from being entirely supported by the ties; this seat, as shown, is interchangeable, as will be readily manifest.

With these and other objects in view, which will readily appear as the nature of the invention is understood, the invention consists of other combinations of features and parts, defined by the appended claim.

In the drawings, Figure 1 is a perspective view of a portion of a railway showing the improved railway tie embodied therein. Fig. 2 is a perspective view of a portion of the railway tie upon an enlarged scale. Fig. 3 is a sectional view on line 3—3 of Fig. 1, illustrating the wedge-shaped members. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a view similar to Fig. 3, showing the wedge-shaped members utilized in a different manner.

Referring to the accompanying drawings, 1 designates an elongated metallic railway tie, which is U-shaped in cross-section; this U-shaped tie forms longitudinal flanges 2, in which are formed, recesses 3, of the shapes shown in the drawings so as to conform to the base of the rail, that is, one side of these recesses conforms to the base of the rail while the opposite side is perpendicular, as shown at 4.

To securely hold the rails, when they are placed in the said recesses, pivoted members 5 are provided, which are pivoted at 6 to the

said flanges; the said pivoted members are designed to be bolted as at 7 when they are engaging the base of the rail to prevent displacement of the rail.

The free ends of the pivoted members conform to the shape of the base of the rail, as clearly shown in Fig. 2. In forming a railway having ties of this character, the said rigid jaws of each alternate tie, are designed to engage opposite sides of the rails; this is accomplished by turning the ties alternately end for end as will be readily understood and shown in Fig. 1. To raise the rails, so as to prevent them from resting entirely upon the flanges of the ties, wedge-shaped members 8 and 9 are provided to co-act with one another as clearly shown in Fig. 3; these wedge-shaped members, when adjusted, in their proper places, are held by spikes 10 and 11, as also shown in Fig. 3. The rails, in course of time, will sink into the uppermost wedge-shaped member which is formed of soft material, and to obviate this to a certain extent, the lower wedge-shaped member is removed, so as to replace the uppermost member, thus forming a new seat for the rail, as will be clearly manifest.

From the foregoing, it will be readily observed that a very efficient, durable and inexpensive tie is provided, which can be installed upon any railroad without inconvenience.

Having thus described the invention, what is claimed as new and useful, is

A device of the class described comprising a metallic railway tie having vertical side portions connected by a horizontal portion, each end of said tie having a pair of recesses formed in the vertical portion thereof, each pair of recesses forming perpendicular shoulders and integral jaws for engaging the rail, a pair of pivoted jaws also mounted on the vertical portions of said tie for cooperation with said integral jaws, a pair of oppositely disposed wedge-shaped blocks arranged in each end of said tie between said vertical portions and immediately beneath the rail, thus forming a yieldable seat for the same, substantially as described.

Dated the 8th day of February 1907.

JOHN FENDERSON.

Witnesses:

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