

(No Model.)

J. REIFERT.
RAILROAD TIE.

No. 440,653.

Patented Nov. 18, 1890.

FIG. 1.

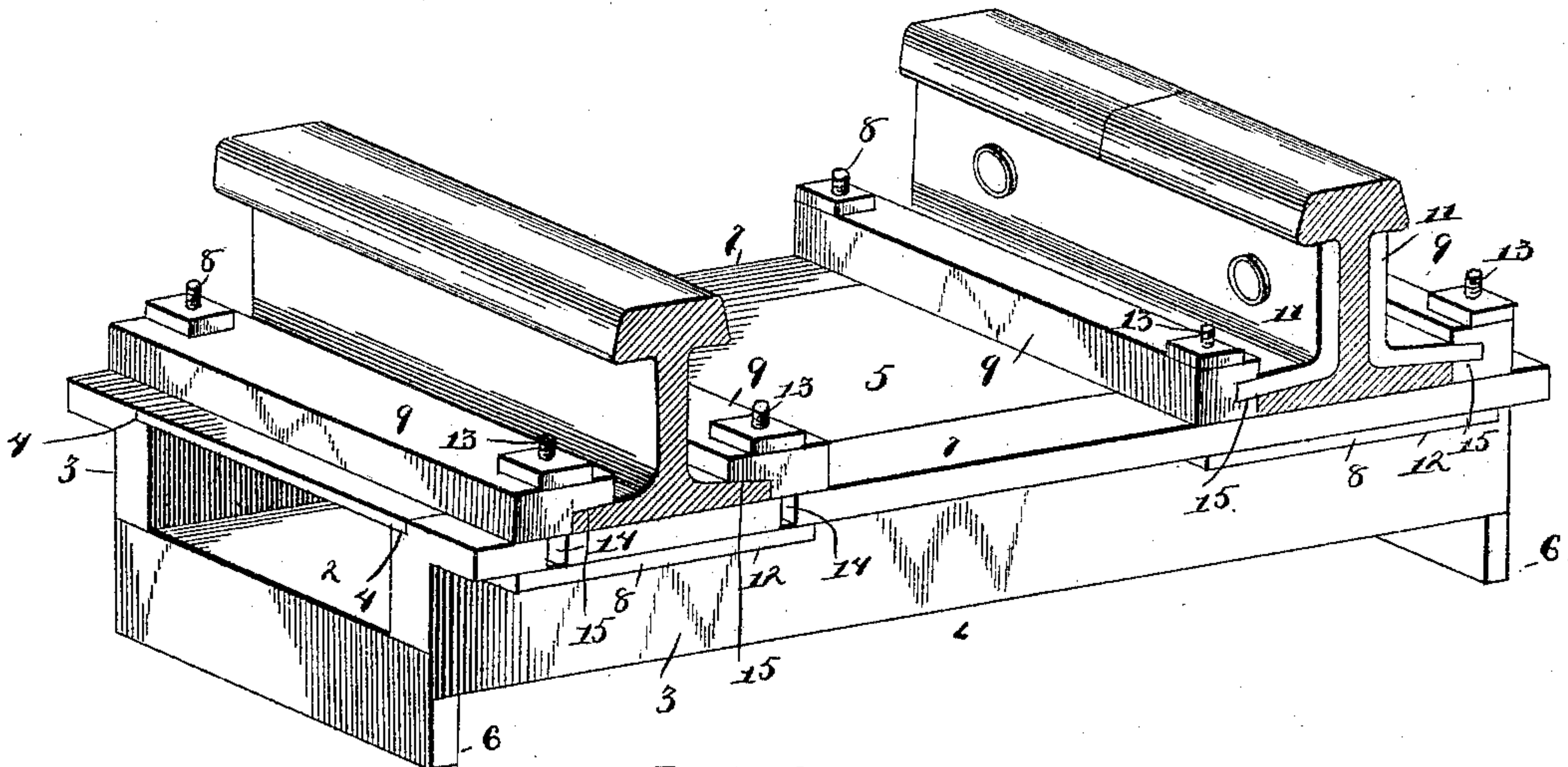


FIG. 2.

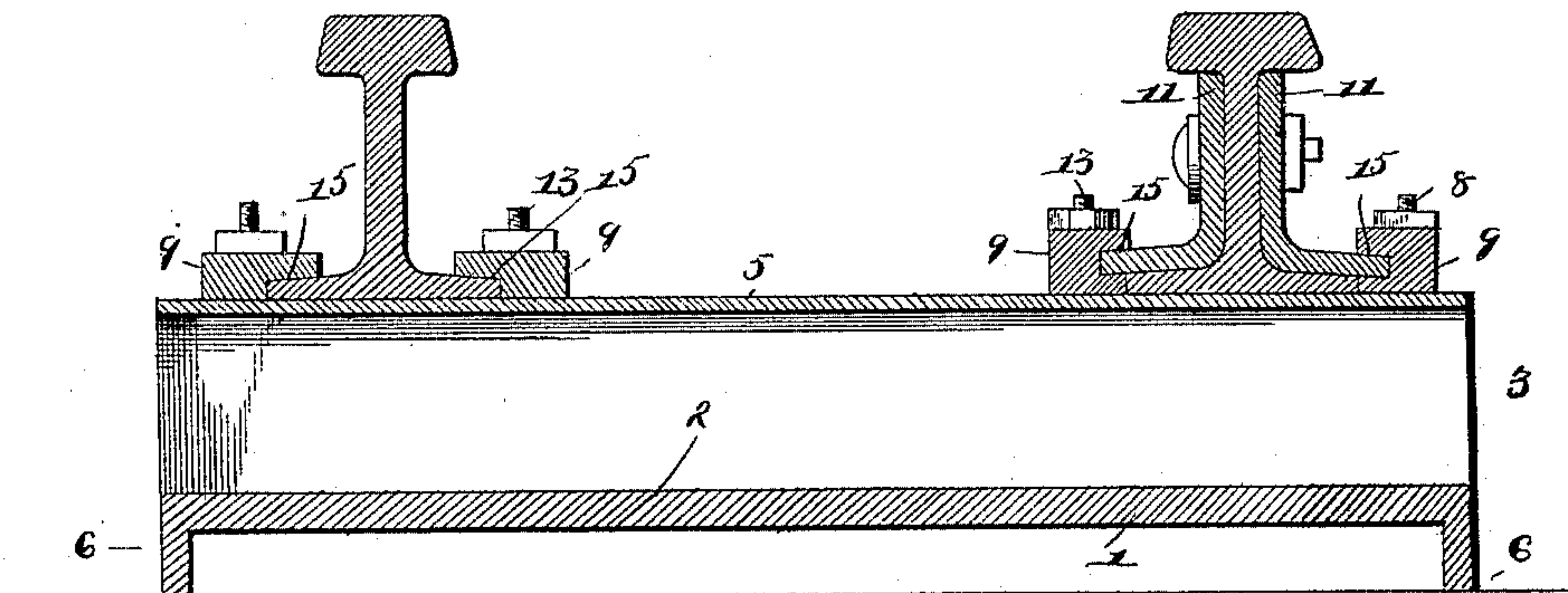
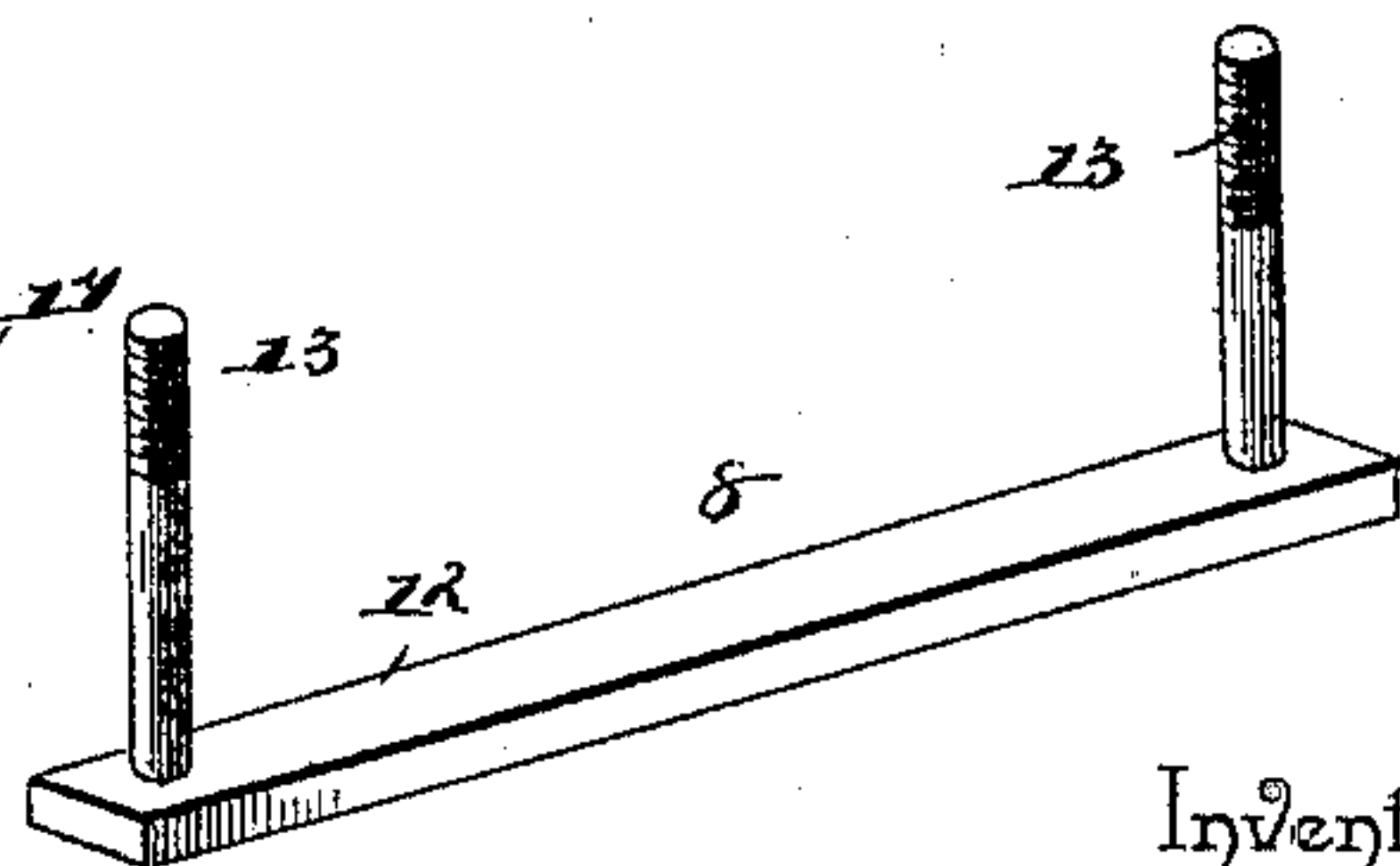
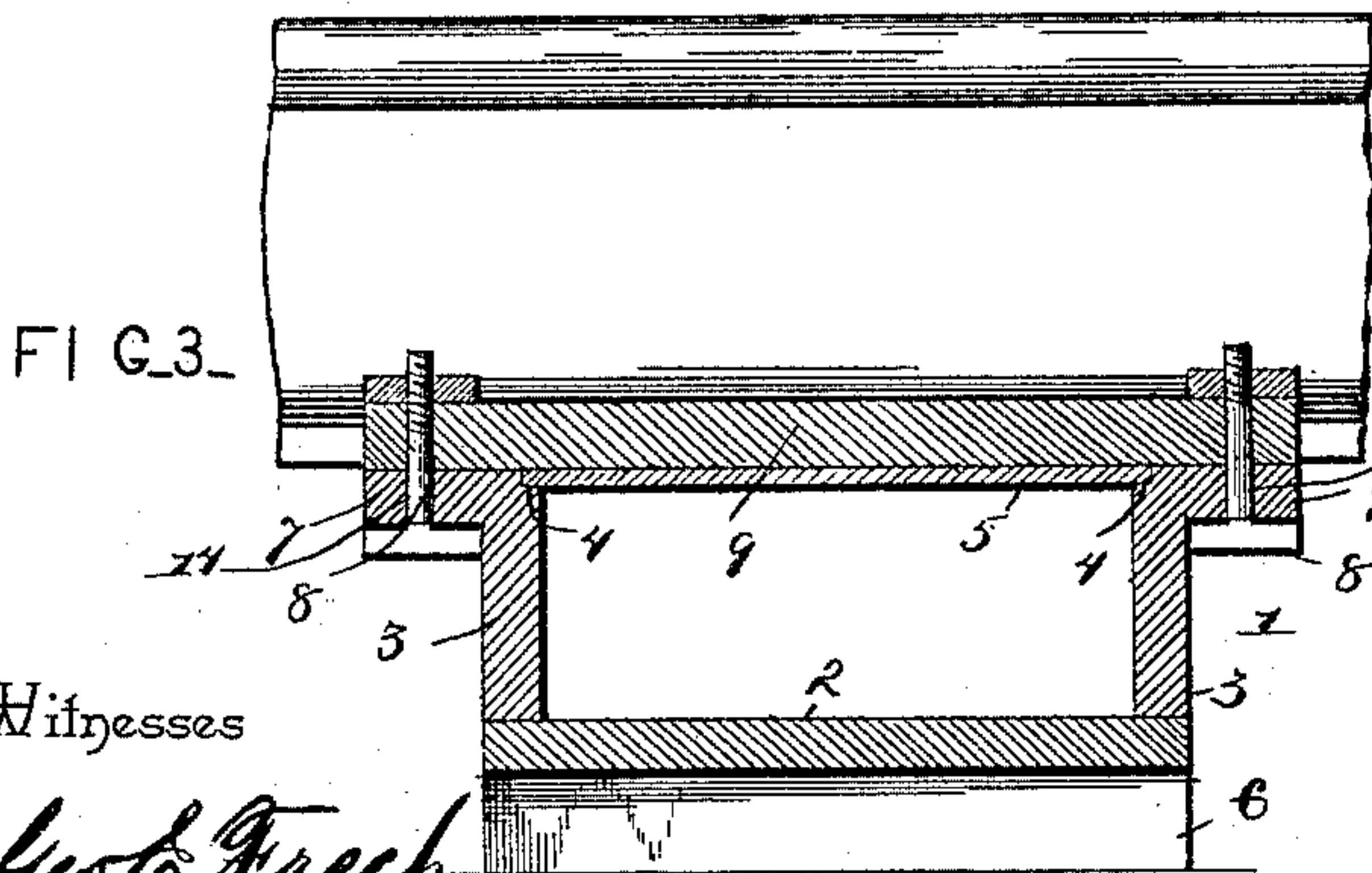


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN REIFERT, OF ROME, NEW YORK.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 440,653, dated November 18, 1890.

Application filed August 30, 1890. Serial No. 363,492. (No model.)

To all whom it may concern:

Be it known that I, JOHN REIFERT, a citizen of the United States, residing at Rome, in the county of Oneida and State of New York, have invented a new and useful Railroad-Tie, of which the following is a specification.

The invention relates to improvements in railroad-ties.

The object of the present invention is to simplify and improve the construction of metallic rail-ties and the manner of securing rails thereto and to afford convenient means for carrying off water and preventing wash-outs.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a rail-tie constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a view of the U-bolt.

Referring to the accompanying drawings, 1 designates a metallic railway-tie, consisting of a rectangular box composed of a bottom 2 and parallel sides 3, provided in their inner faces at their upper edges with longitudinal grooves or ways 4, in which rests a thin metal plate 5, adapted to close the top of the tie; and it will be seen that a longitudinal opening is provided through the tie, which opening forms a sewer-way or conduit to permit the passage of water from springs, floods, or the like to prevent wash-outs. The ends of the tie are provided with depending transverse flanges 6, which are formed integral with the bottom and prevent longitudinal movement of the tie, and the latter is provided along the upper edges of its sides with laterally-extending flanges 7, through which pass U-shaped bolts 8, adapted to secure tie-bars 9 to the face of the tie for securing a rail or fish-plates 11, attached to the rail. The U-shaped bolt consists of a bottom bar 12, adapted to engage the lower face of the lateral flange 7, and

threaded stems 13, formed integral with the bar 12 and passing through notches or recesses 14 in the said flange. The tie-bars 9 are provided with longitudinal grooves 15, adapted to receive the edge of a rail or fish-plate and secure the same, and when fish-plates are employed at the rail-joint the grooves extend along the middle of the inner face of the tie-bar, and when the latter engages the rail itself the grooves are formed at the lower edge, and the said tie-bars extend transversely across the upper face of the tie and are arranged at each side of a rail and securely fit the latter to the tie. Instead of the notches 14 in the laterally-extending flanges 7 at the upper edges of the sides, perforations may be employed to receive the stem of the U-shaped bolts.

It will be seen that the tie and manner of securing the rail are simple and inexpensive in construction, that the parts are adapted to be readily assembled or separated for the purpose of securing a rail to the tie or removing the same, and that a conduit or way for water is provided which prevents wash-outs.

What I claim is—

The combination of the tie constructed of metal and composed of the bottom provided with the depending flanges arranged at the end of the ties, and the parallel sides provided at their upper edges with grooves or ways arranged on the inner faces, and laterally-extending flanges arranged on the outer faces, the plate 5, secured in the grooves or ways, the rail, the tie-bars provided with grooves and adapted to secure the rail to the tie, and the U-shaped bolts, consisting of the bar 12, adapted to engage the lower face of a lateral flange, and the threaded stems passing through the flange, and the tie-bars, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN REIFERT.

Witnesses:

RICHARD H. JONES,
THOS. H. POND.