

No. 748,444.

PATENTED DEC. 29, 1903.

J. F. VILSACK.
RAIL JOINT.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.

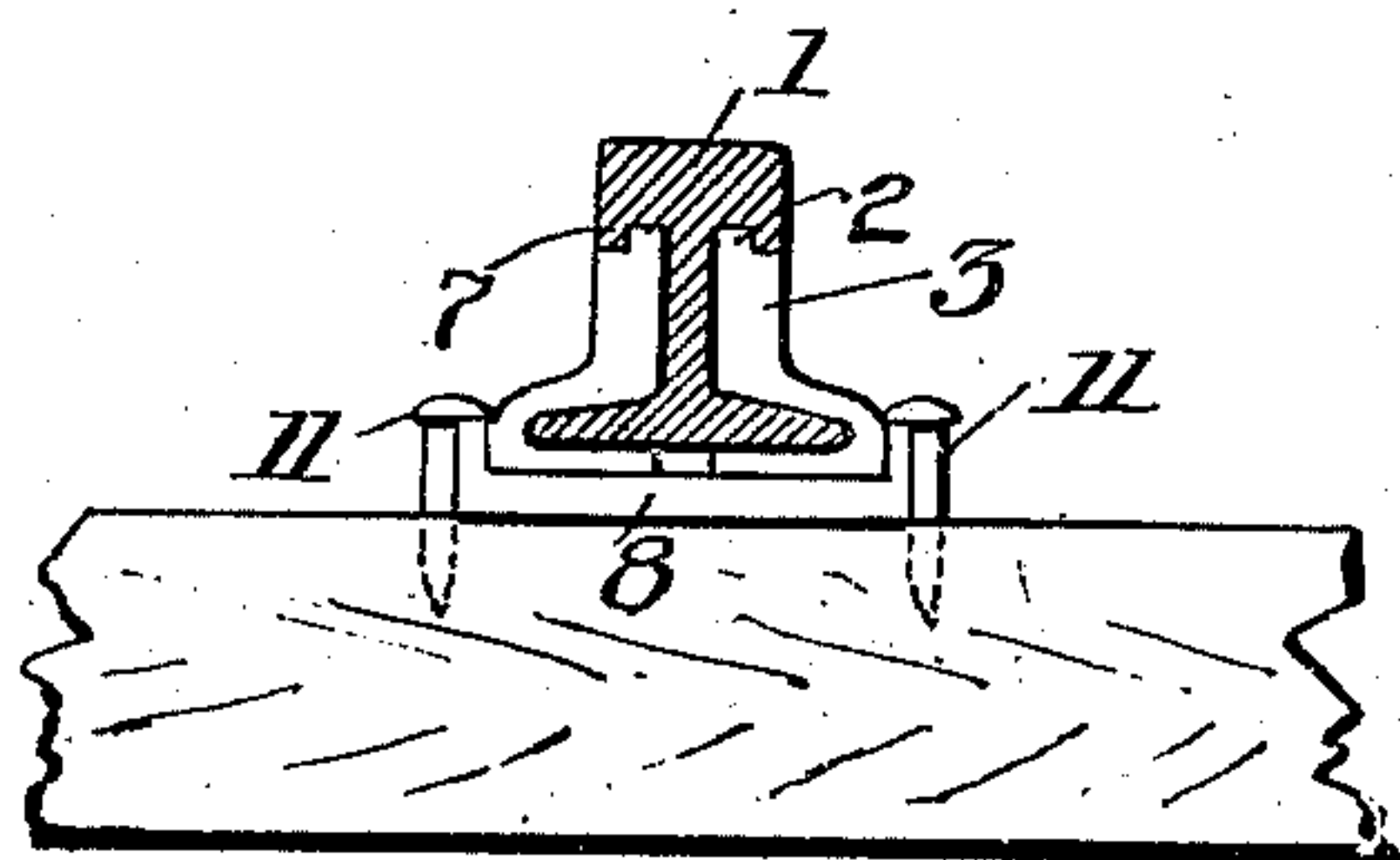


Fig. 1.

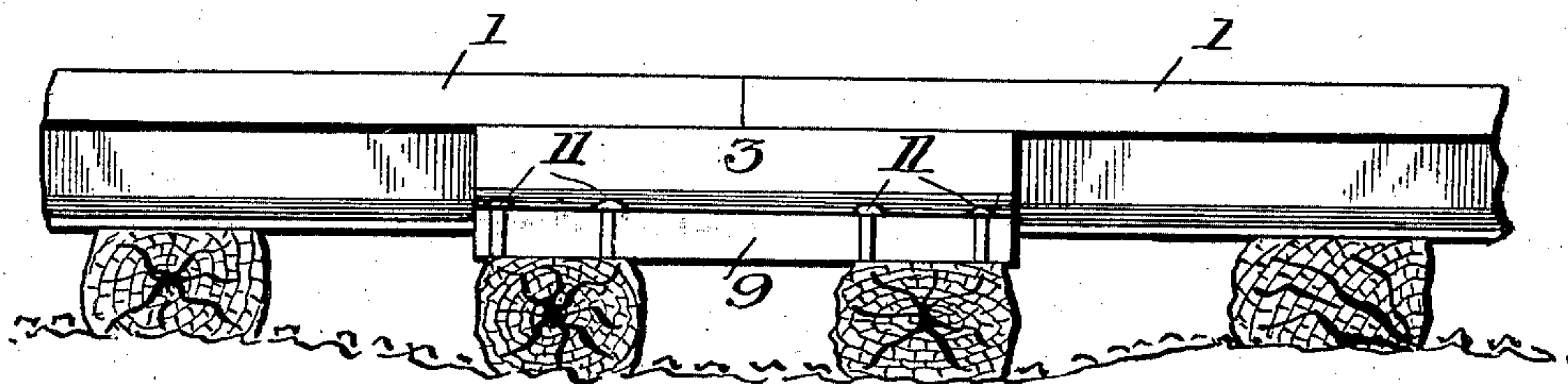


Fig. 2.

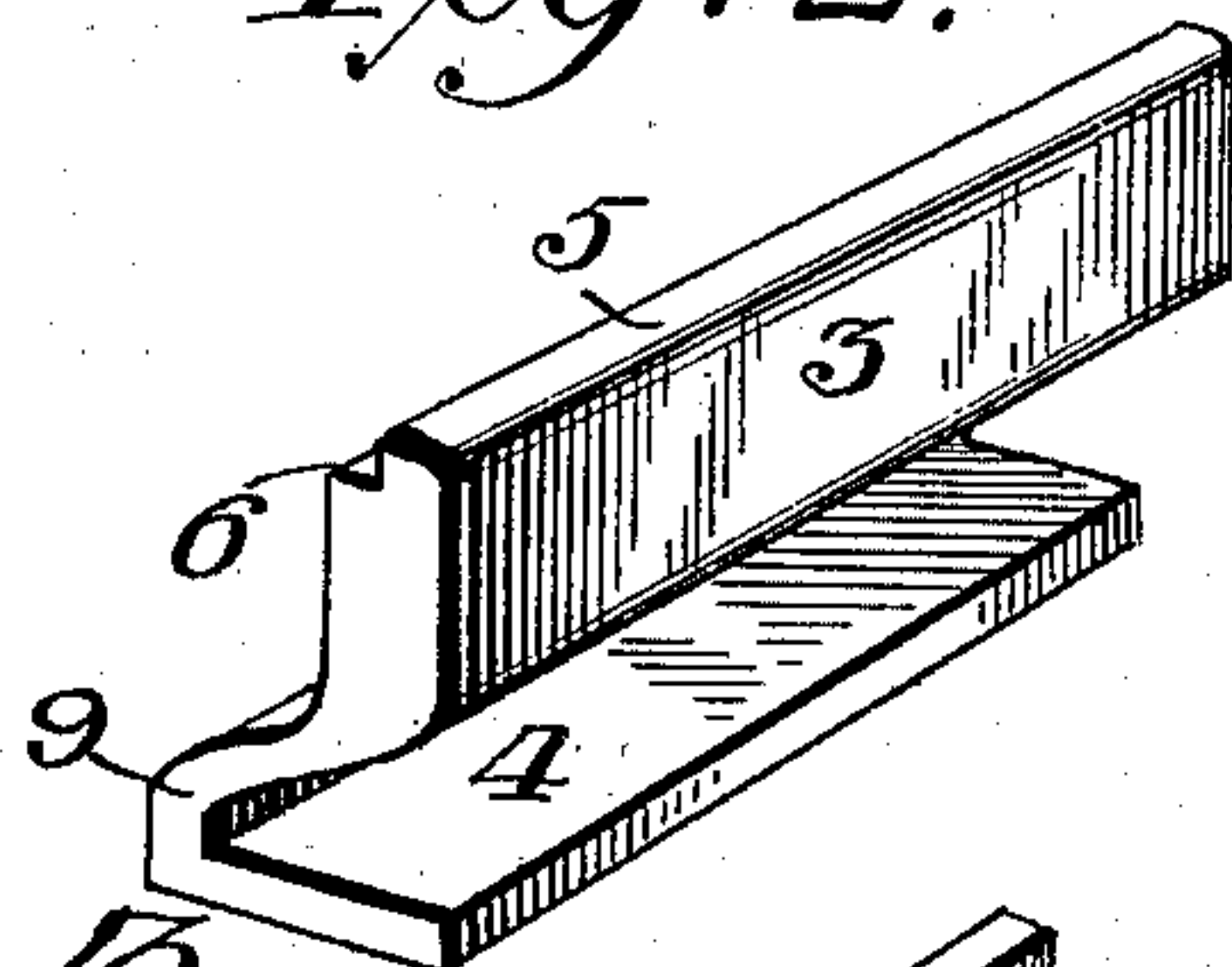


Fig. 3.

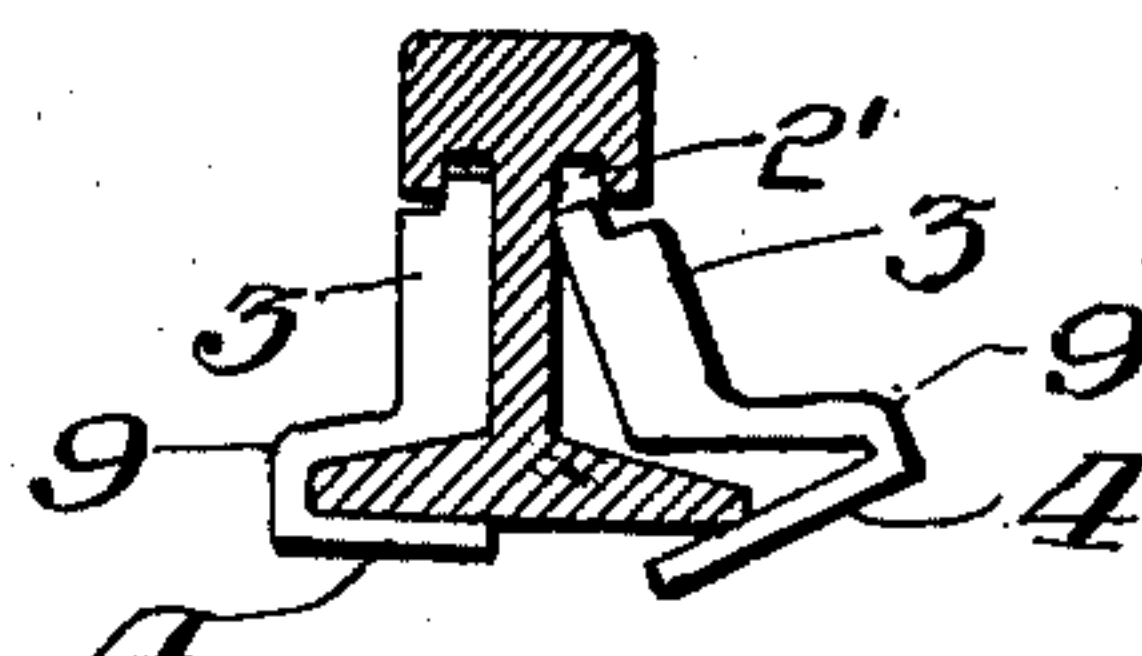


Fig. 4.

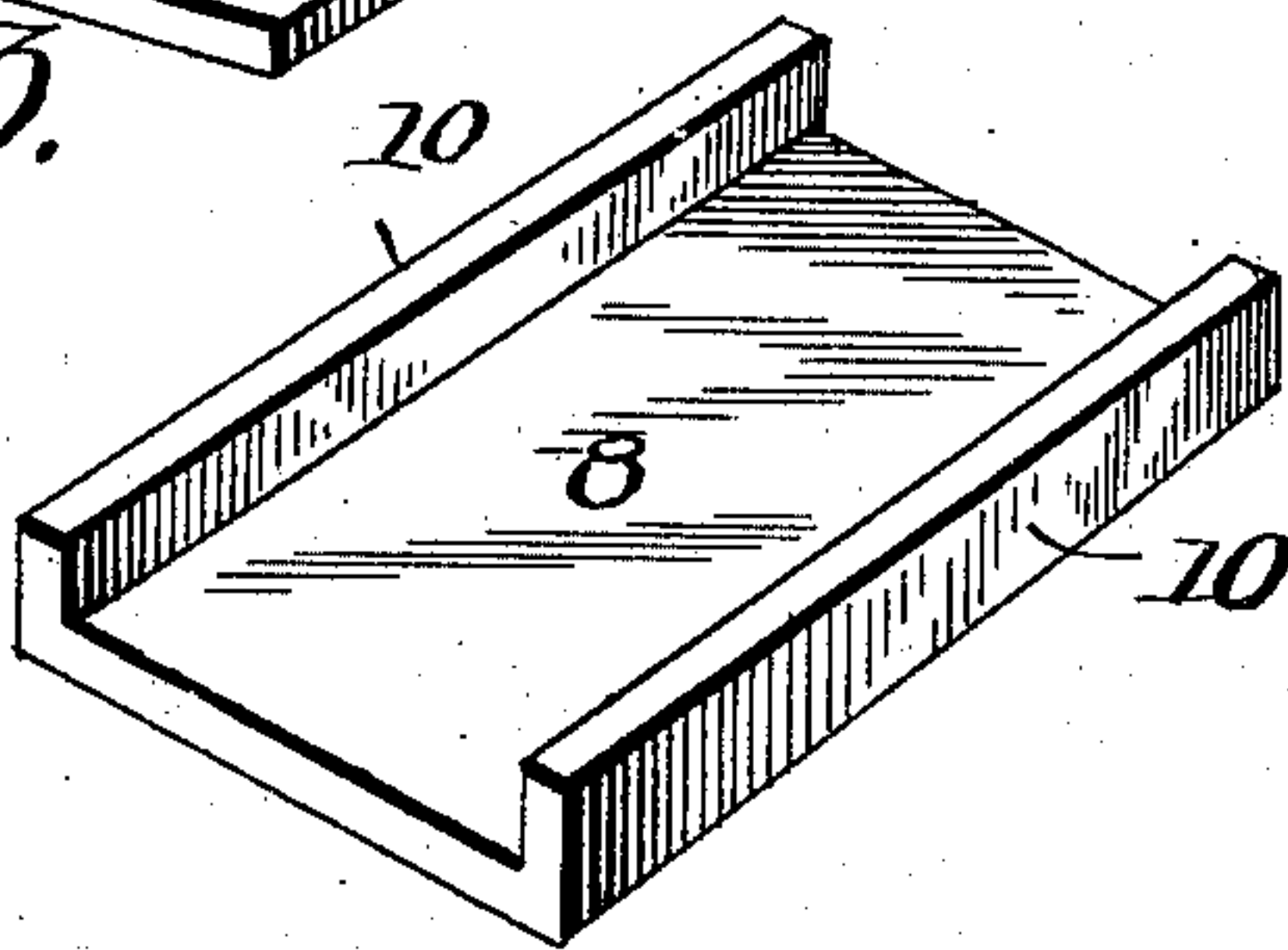


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH F. VILSACK, OF JOHNSTOWN, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 748,444, dated December 29, 1903.

Application filed November 9, 1903. Serial No. 180,412. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. VILSACK, a citizen of the United States of America, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in rail-joints; and the primary object of the invention is to provide novel and effective means for securely fastening the rails at the joints without the aid
15 of the ordinary fish-plates and bolts.

Briefly described, the invention comprises a rail-chair embodying a saddle-plate provided along each side edge with an upwardly-extending flange and a pair of clamp-plates
20 each comprising a fish-plate member and an integral base member, which is adapted to extend inwardly for some distance underneath the base of the rails. The fish-plate members are made of an increased thickness
25 to give extraordinary strength at the joint of the rails, the outer face of the fish-plate members being flush with the sides of the rail-tread, and the upper edges of said fish-plate members are provided with a tongue which
30 fits into a groove provided therefor in the underneath face of the rail-tread.

All of the above construction will be hereinafter more specifically described and then particularly pointed out in the claims, and
35 in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference will be employed for designating like parts throughout the different views of the drawings, in which—

Figure 1 is an end view of a rail-joint constructed in accordance with my invention, showing the rail in cross-section. Fig. 2 is
45 a side elevation thereof. Fig. 3 is a detached detail perspective view of one of the clamp-plates. Fig. 4 is a like view of the saddle-plate; and Fig. 5 is an end view of a slightly-modified form of construction, showing the
50 rail in cross-section.

To put my invention into practice, I provide the rails 1 with grooves 2 in the under-

neath face of the rail-tread, which grooves are preferably formed in the rails in the rolling of the latter, though they may be cut
55 therein for some distance at the ends of the rails only, if so desired. I employ a pair of clamp-plates, one for each side of the rails, and each of these clamp-plates comprises a fish-plate member 3 and an integral base
60 member 4. The fish-plate member is made of considerably greater thickness than the base member, being preferably of a thickness which will make the outer face of the
65 said member flush with the side or outer face of the rail-tread, though not extended beyond the outer or side face of the rail-tread, so that it will not interfere with the wheel-flange. The upper edge of this fish-plate
70 member 3 is shouldered off along the outer edge to form a tongue 5, which is adapted to engage in the groove 2 in the rails, the flange 7, formed underneath the rail-tread by grooving said rail-tread, resting on the shoulder
75 6 of the fish-plate member. The two base members 4 are not adapted to meet at their inner edges, a space being left between the same, as clearly seen in Fig. 1, thus allowing the clamp-plates to be forced up tight
80 against the rail-base. These two clamp-plates are received on a saddle-plate 8, the vertical edge walls 9 of the clamp members fitting neatly against the vertical side walls 10, carried by the saddle-plate 8.

In order to permit the insertion of the clamp-
85 plates from the sides of the rails, I may provide sufficient clearance in the grooves in the rails, as shown at 2' in Fig. 5, the construction of the clamp-plates, however, being the same. The device is secured to the cross-
90 ties by the usual spikes 11, the heads of which engage the upper edges of the side walls 10.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of the
95 invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination with the
100 rails having grooves in the underneath side of their tread, of clamp-plates comprising fish-plate members having tongues to engage in said grooves and base members extending

underneath the rails, and a saddle-plate having upwardly-extending side walls against which the outer edges of the clamp-plates abut and on the base of which plate the base members of the clamp-plates rest, substantially as described.

2. In a rail-joint, the combination with the rails having grooves in the underneath face of their tread, of clamp-plates embodying integral fish-plate members and base members, the outer face of the fish-plate members being flush with the side faces of the rail-tread, tongues formed on the upper edge of the fish-

plate members to engage in the grooves in the rail-tread, and a saddle-plate having upwardly-extending side walls, the base members of the clamp-plates resting on the saddle-plate and the outer edges of the clamp-plates engaging the side walls, substantially as described.

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

JOSEPH F. VILSACK.

Witnesses:

JOSEPH DONAHUE,
JOHN DONAHUE.