

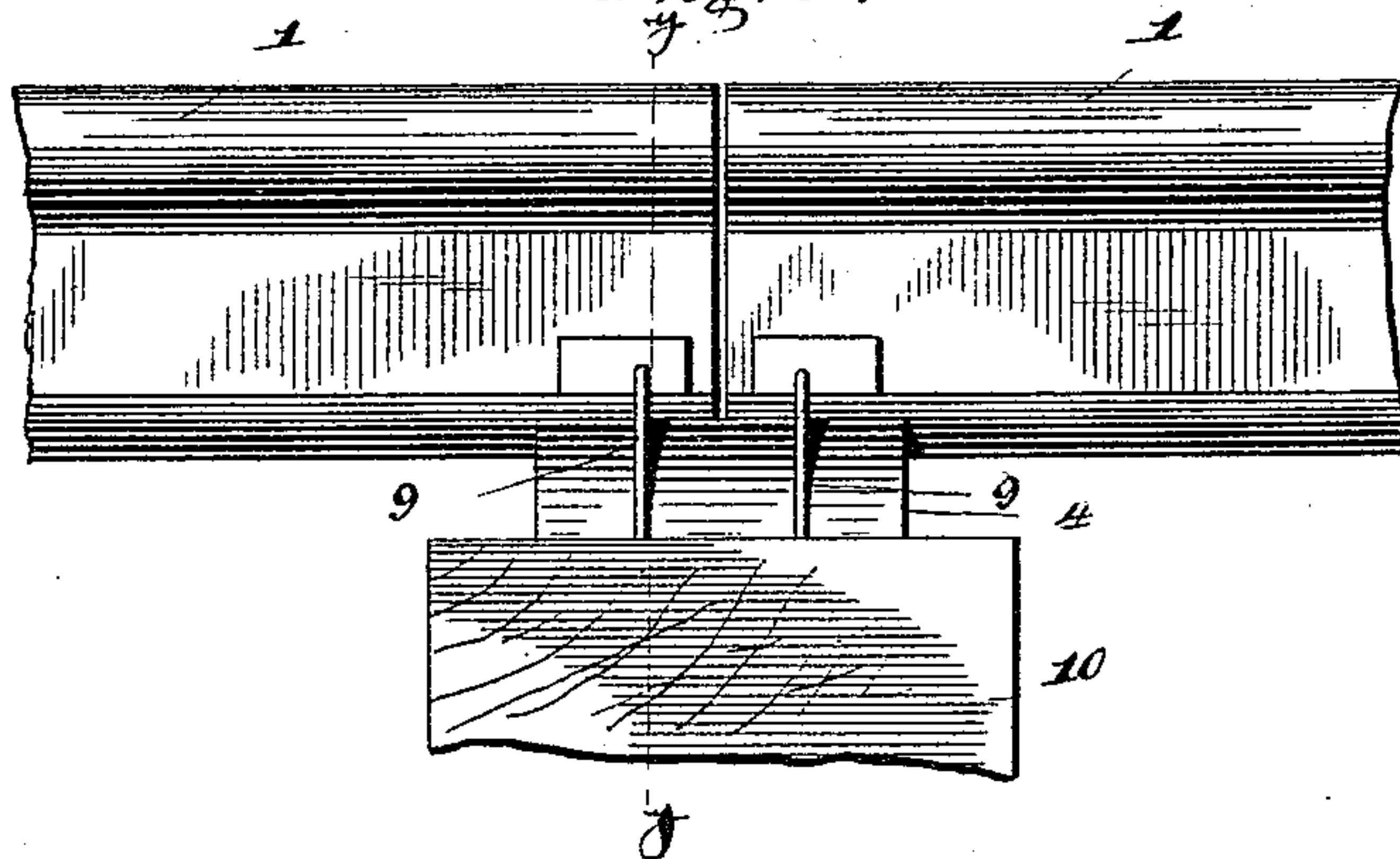
(No Model.)

J. D. MORGAN & W. DAFFRON.  
RAILWAY JOINT.

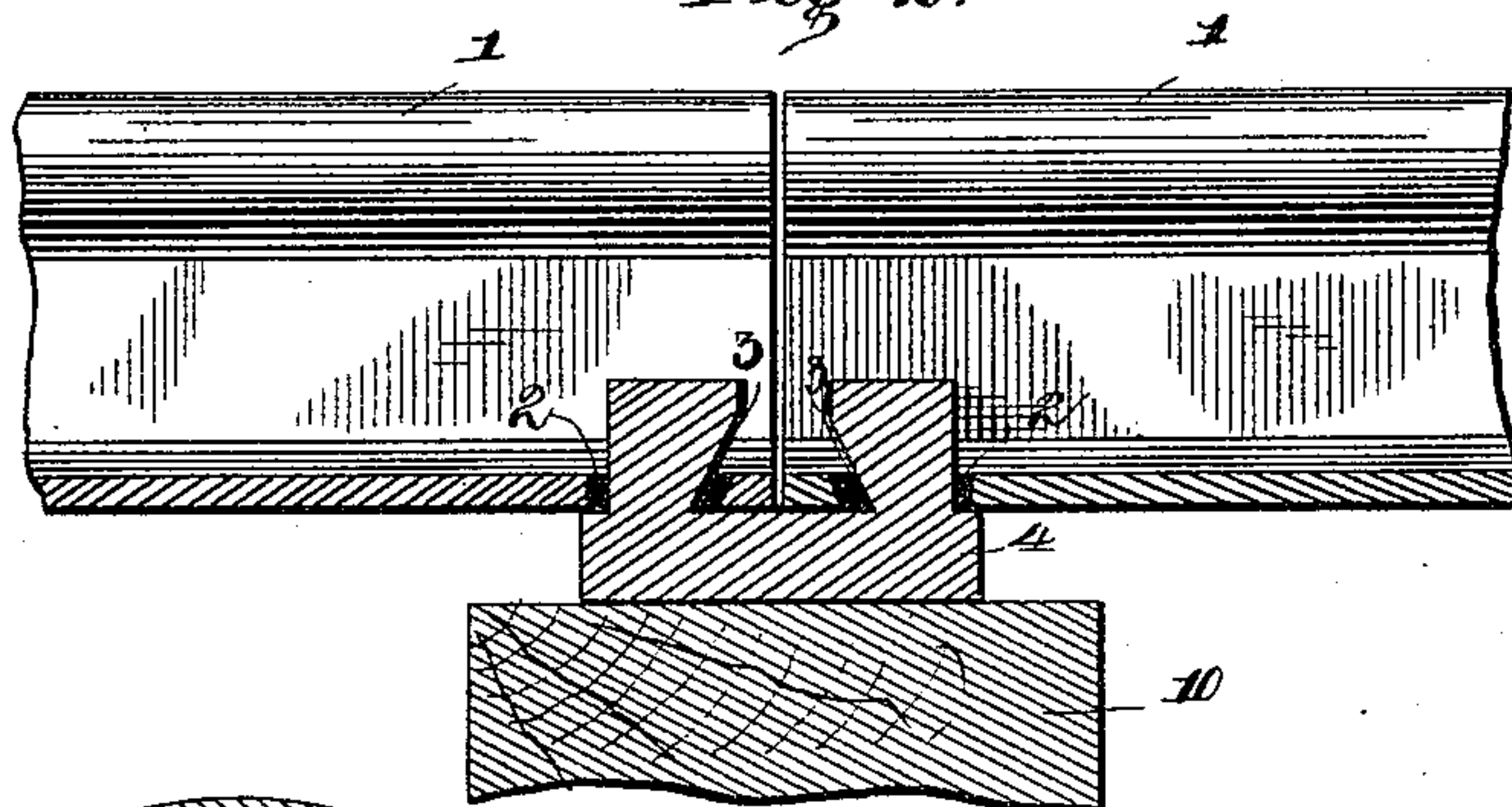
No. 441,683.

Patented Dec. 2, 1890.

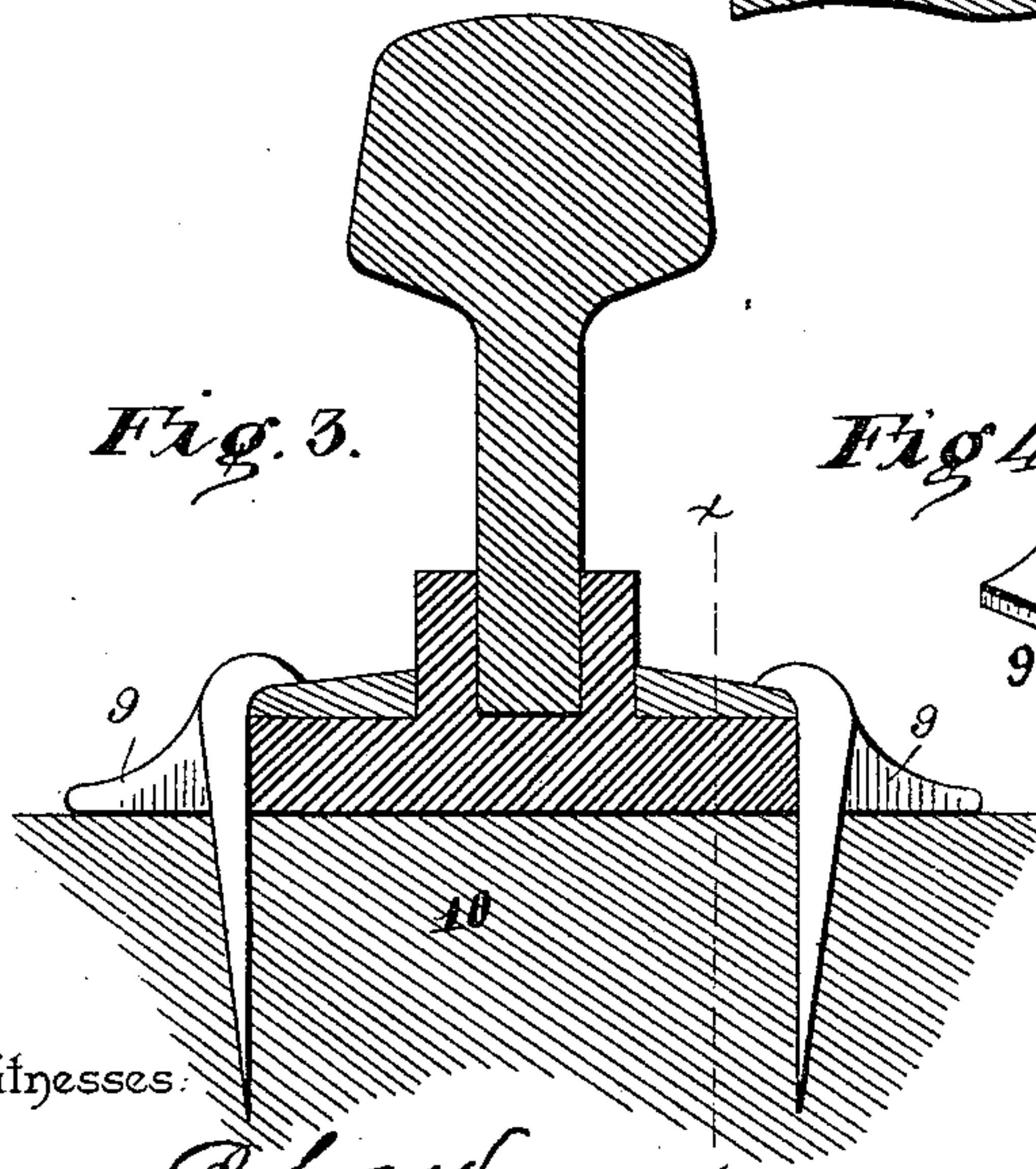
*Fig. 1.*



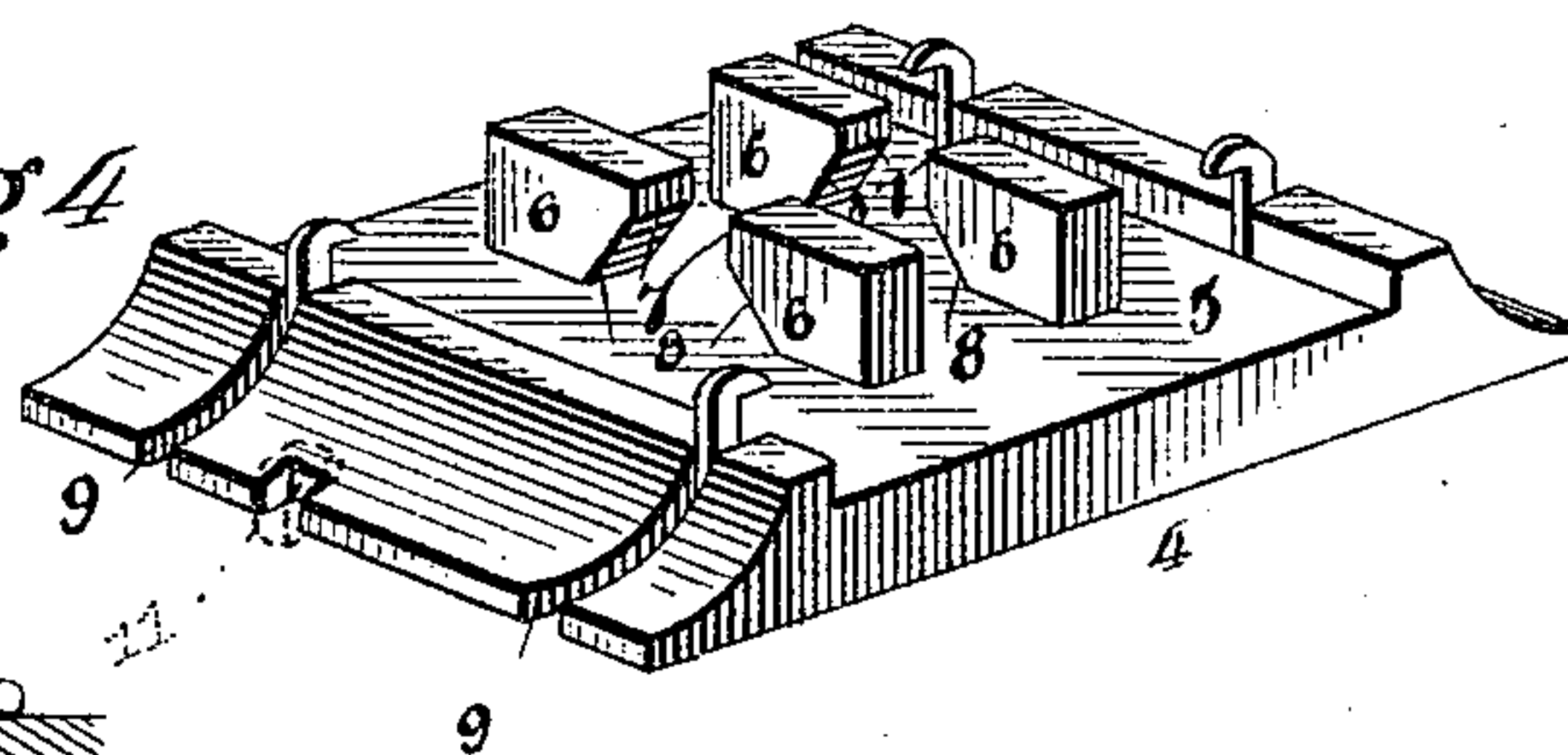
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

*Isaac Behrens.*

*W. S. Swall*

Inventors

*J. D. Morgan and  
Wesley Daffron*

By their Attorneys,

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# UNITED STATES PATENT OFFICE.

JILES D. MORGAN AND WESLEY DAFFRON, OF INMAN, ALABAMA.

## RAILWAY-JOINT.

SPECIFICATION forming part of Letters Patent No. 441,683, dated December 2, 1890.

Application filed August 14, 1890. Serial No. 362,027. (No model.)

*To all whom it may concern:*

Be it known that we, JILES D. MORGAN and WESLEY DAFFRON, citizens of the United States, residing at Inman, in the county of St. Clair and State of Alabama, have invented a new and useful Railway-Joint, of which the following is a specification.

This invention has relation to railway-joints; and the objects in view are to provide an extremely strong and durable joint at a small cost and save the employment of the usual fish-plate connecting-bolts, their nuts and locks, and all accessories thereto.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a rail-joint constructed in accordance with our invention. Fig. 2 is a longitudinal section on the line  $x x$  of Fig. 3. Fig. 3 is a transverse section on the line  $y y$  of Fig. 1. Fig. 4 is a detail in perspective of the base-plate or chair.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 1 designate two opposite rail-sections, which are of the usual construction, with the exception that their bases at each side of their webs and near the adjacent or abutting ends of the sections are provided with oblong openings 2, the outer ends of which are beveled or inclined, as at 3.

4 designates the chair or base-plate, and the same is formed of a single casting with opposite inclined ends or sides to give it a broad seat, and between its sides is provided with a recess 5, extending throughout the length of the same. The recess 5 is of a width to snugly embrace the bases of the rails and is of a depth about agreeing with the same. At each side of its transverse center and also of its longitudinal center the plate 4 within its recess is provided with upwardly-disposed lugs 6, the upper ends of which are provided with heads 7, the inner ends of the lugs being undercut or dovetailed, as at 8, to agree with the beveled ends 3 of the slots or openings 2, the upper adjacent ends of the lugs being nearer together than are the corresponding ends of the openings. The opposite beveled sides of the chair or base 4 are

provided at each side of their centers with vertical slots 9, which extend from the edges of the plates inwardly to the walls of the recess 4.

The base or chair may be spiked to a single tie 10, as shown, or to two adjacent ties, as will be obvious, and the manner of mounting the rails in position is as follows: One rail-section is mounted over the lugs 7, said lugs passing through the oblong slots or openings 2 thereof, and said rail-section is slid longitudinally in an outward direction or away from the chair, which permits of the companion rail-section being likewise introduced. When slid longitudinally, the undercut end of the head 7 overlaps the base of the rail, and after the companion rail-section is introduced the undercut heads 7 at that side of the base take into the slot or openings 2 and overlap the inner ends thereof, so that it is impossible to withdraw the two rails from the lugs simultaneously, one rail having to be slid as far as possible before the opposite rail can be removed. After the rail-sections have been placed in position spikes 11 are driven in each of the slots 9, and the heads of the spikes extend inwardly over the bases of the rails, as shown, whereby the rails are prevented from longitudinal movement and also from vertical movement.

The extreme facility and dispatch with which rails may be thus joined will be obvious to all experienced in the construction of railroads, and by our invention we save both time and expense in laying the rails over that accruing from the use of the usual fish-plates and bolts. Furthermore, lateral displacement of the rails is absolutely impossible, and we are therefore enabled to save track-walkers and rail-inspectors, or at any rate greatly reduce the number now necessary upon every railroad. Although the rails are so securely fastened it will be obvious that a desired removal of the same may be readily accomplished and with greater ease than has heretofore been the case.

Having thus described our invention, what we claim is—

1. In a railway-joint, the combination, with the opposite rail-section, the bases of which near their ends and at each side of their web are provided with oblong openings, of a base-



plate or chair mounted upon a cross-tie under the ends of the rail-sections recessed upon its upper surface to receive the base, and having opposite pairs of headed lugs adapted to  
5 take through the openings in the bases of the rails and having their adjacent ends undercut to overlap the ends of the openings, which latter have their adjacent ends farther apart than are the upper adjacent ends of the lugs,  
10 and spikes passed through the base-plate into the tie, substantially as specified.

2. In a railway-joint, the combination, with the opposite rail-sections, the bases of which near their ends and at each side of their webs  
15 are provided with oblong openings, the inner ends of which are beveled, of the chair or base-plate mounted upon a tie under the ends of the sections centrally recessed to receive the bases, and having headed lugs cast in  
20 the bottom of the recesses adapted to pass

through the openings and having undercut inner ends overlapping the beveled edges of the openings, said chair being provided with opposite slots extending from their outer edge to the walls of the recess, and headed spikes  
25 driven through the slots into the ties and overlapping the bases of the rails, substantially as specified.

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

JILES D. <sup>his</sup> × MORGAN.

WESLEY <sup>his</sup> × DAFFRON.  
<sub>mark</sub>

Witnesses:

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