

No. 665,490.

Patented Jan. 8, 1901.

M. WALDVOGEL.
RAIL JOINT.

(Application filed May 4, 1900.)

(No Model.)

Fig. 1.

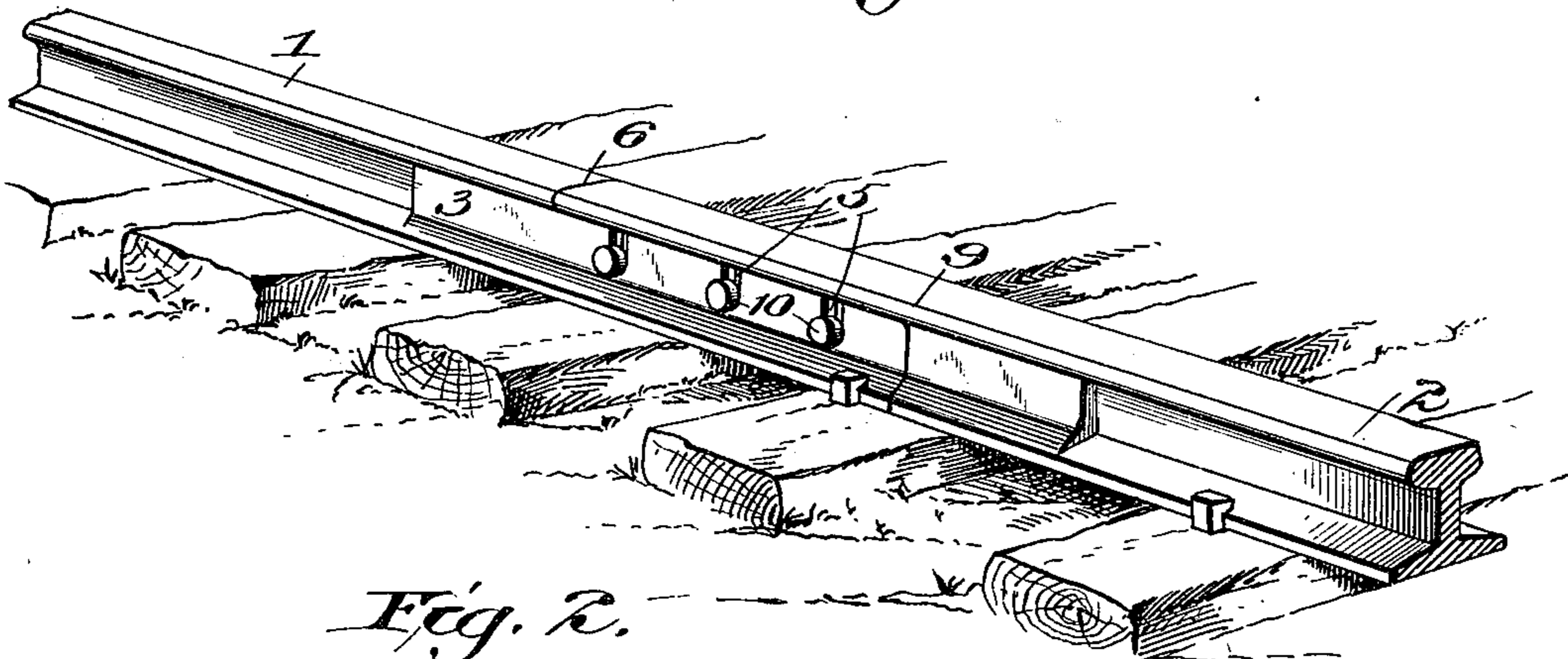


Fig. 2.

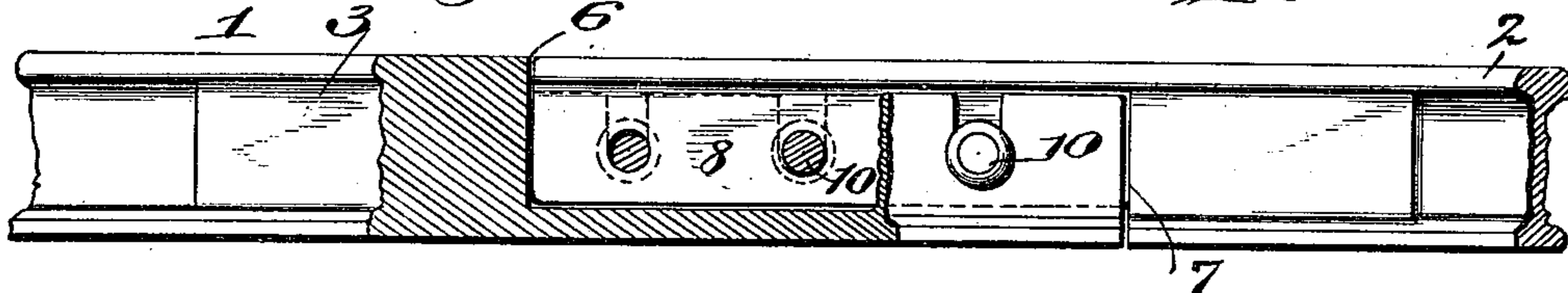


Fig. 3.

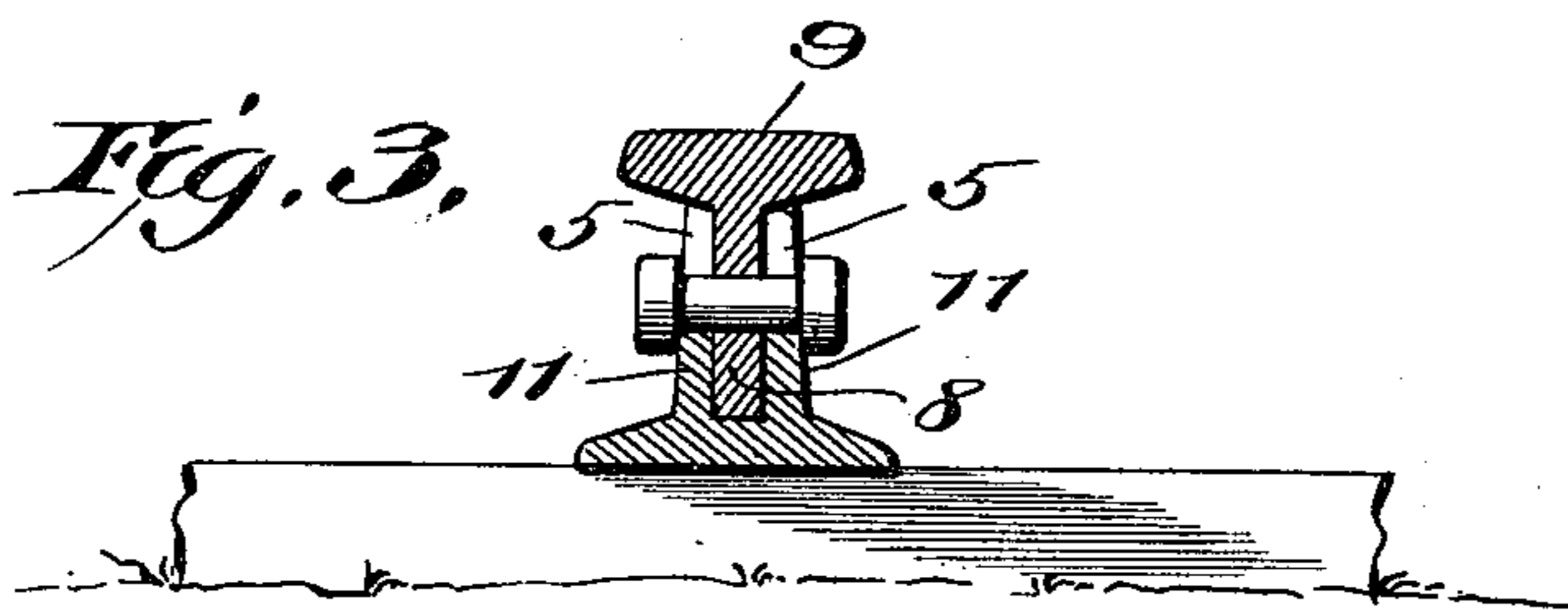
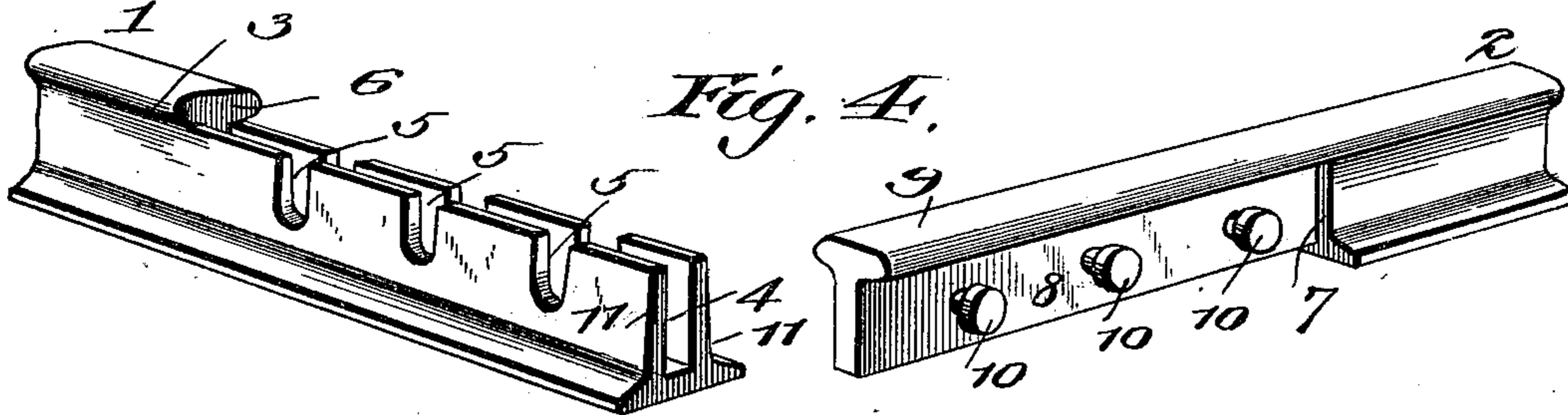


Fig. 4.



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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 665,490, dated January 8, 1901.

Application filed May 4, 1900. Serial No. 15,495. (No model.)

To all whom it may concern:

Be it known that I, MARTIN WALDVOGEL, a citizen of the United States, residing at Atco, in the county of Camden and State of New Jersey, have invented a new and useful Rail-Joint, of which the following is a specification.

My invention relates to rail-joints; and it has for its object to produce a rail-joint which will be solid, strong, and durable, and which will form a substantially continuous rail, thereby avoiding the unevenness of the road or track which is caused by the construction and joining of the rails as used upon the railroads at the present time.

With this object in view my invention consists in the improved construction of a rail-joint, as will be hereinafter more fully set forth.

In the accompanying drawings, in which the same reference-numerals indicate corresponding parts in each of the views in which they occur, Figure 1 is a perspective view of a section of track in which the rails are provided with my improved joint. Fig. 2 is a longitudinal sectional view through one of the joints. Fig. 3 is a transverse sectional view of the same, and Fig. 4 is a perspective view of the ends of two rails forming my improved joint.

Referring more particularly to the drawings, 1 and 2 indicate the rails for forming a railroad-track, which may be of any size or construction in cross-section and of any suitable length. Each end of each of the rails is provided with means for forming my improved rail-joint. One of the rails is of substantially the same width from top to bottom, as shown at 3, and is recessed or hollowed out, as shown at 4, for a suitable distance, and the walls of the recess are provided with oppositely-disposed openings or cut-away portions 5. The top or tread of the rail is cut away, as shown at 6, from the rear or inner end of the recess 4 to the end of the rail. The opposite end of the rail has its face cut away, as shown at 7, and the web 8 is formed of substantially the same area in cross-section as the cross-sectional area of the recess 4, so that when the ends of two rails are joined together the web of the one will fit in the recess of the other, thereby holding the rails rigidly in

alinement with each other. The top or tread 9 of the rail will fit in the cut-away portion 6 of the corresponding rail, so that it will lie perfectly smooth and flat with the tread of the other rail. In this manner the abutting ends of the two rails are always held in perfect alinement with each other and any unevenness in the track caused by the ends of the rails being forced downward is entirely avoided. The web 8 is further provided with laterally-extending headed pins or projections 10, which are adapted to fit into the notches or openings 5 in the walls of the end of the other rail. The web of the rail 2, adjacent to the end of the rail 1, is of substantially the same width from the top to the bottom, so as to correspond with the thickened portion 3 of the companion rail.

As above described, it will be seen that by forming each rail in the manner above described the companion ends of the adjacent rails can be interlocked with each other by simply dropping the end of rail 2 down into the end or box-like portion of rail 3 and nailing the rails to the ties in the ordinary manner. If desired, walls 11 on the end of rail 1 may be slightly tapered toward the top, so that when the bolts or headed pins of the rail 2 are slipped down into the notches or openings 5 they will engage with this inclined portion and draw the parts more firmly together, thus producing a very rigid union between the two rails. As the rails at the joint are of substantially the same area in cross-section from top to bottom, it will be seen that a joint formed from rails as above described will possess greater strength at the joint than at any other point throughout its length, thereby preventing the possibility of the rails being spread laterally at their joints and avoiding the use of the ordinary plates and of nuts and bolts for securing them together, as is necessary with the rails in present use.

It will be understood that my improved rail-joint can be used upon street-car tracks or any other place as readily and as satisfactorily as it can be used upon the ordinary railroad, thereby increasing its utility and rendering such tracks substantially continuous throughout their length.

Having thus 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 a rail provided with a box-like receptacle at its end, the walls of which are provided with open-topped transverse recesses, of a second rail, the end of which is reduced to fit in said box-like receptacle and its sides are provided with integral projections to enter said recesses, substantially as described.

2. In a rail-joint, the combination, with a rail, the end of which is provided with a box-like receptacle, the walls of which are provided with registering, open-topped transversely-arranged openings and the top or tread of the rail is cut away down to said recesses, of a second rail, the end of which is reduced and cut away to fit in said box-like receptacle and the tread at its upper edge is extended to the end of said reduced portion in position to fit within the cut-away portion at the top of the other rail and the sides are provided with integral laterally-extending headed pins to enter the recesses in the walls

of said box-like receptacle, substantially as described.

3. As a new article of manufacture, a rail for railroads, one of the ends of which is provided with an open-topped box-like receptacle, the walls of which are inclined toward the top upon their outer surface, and provided with open-topped transverse recesses, the tread of the rail being cut away the entire length of said box-like receptacle, and the other end is reduced to substantially the same area in cross-section as the cross-sectional area of the box-like receptacle, and the tread is extended to the end of the rail, the sides of said reduced portion being provided with integral laterally-projecting headed pins in position to engage with the inclined portion of the walls of said box-like receptacle, substantially as described.

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Witnesses:

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