

W. H. JORDAN.  
RAIL JOINT.

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990,657.

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Fig. 1.

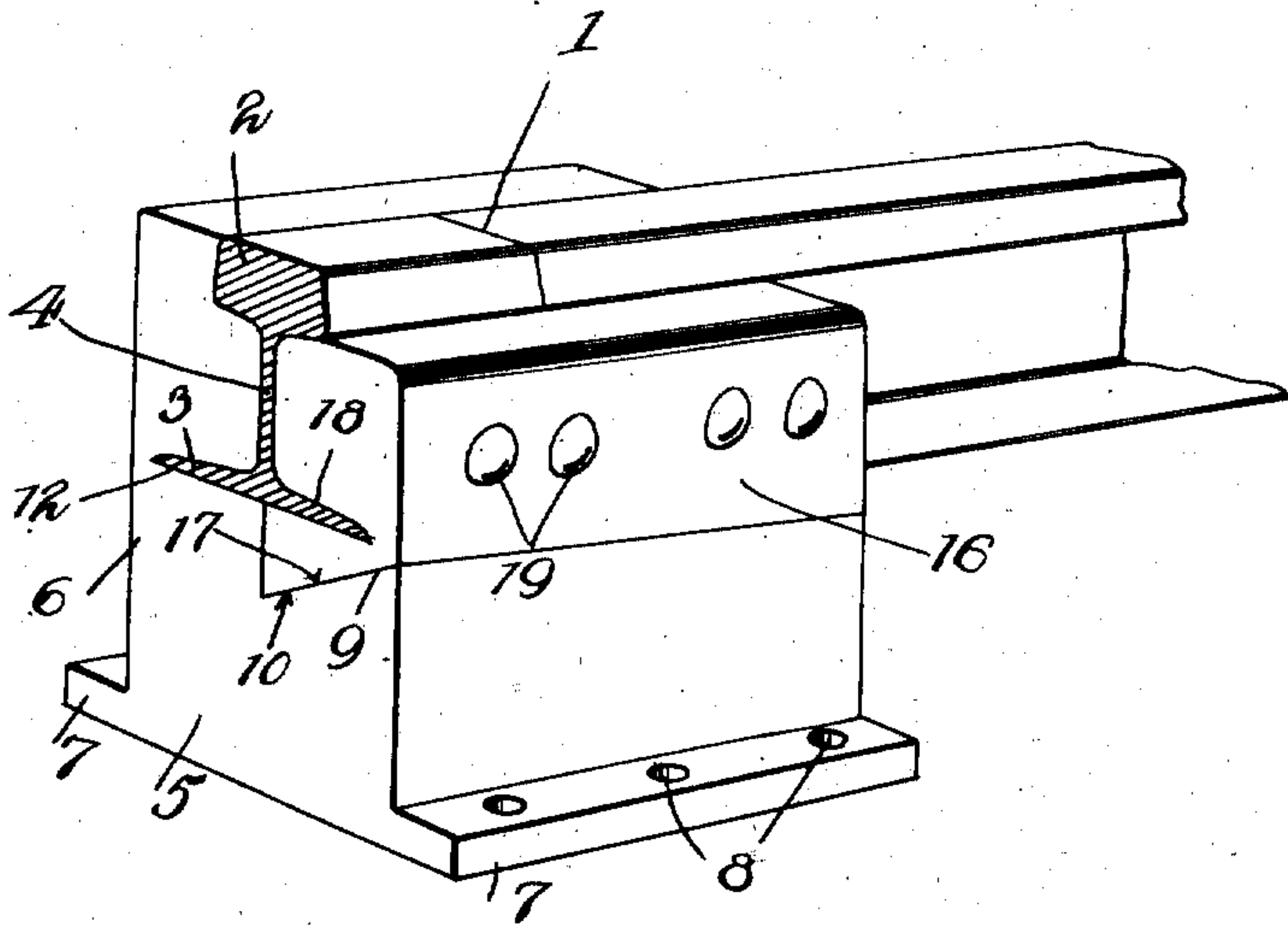


Fig. 2.

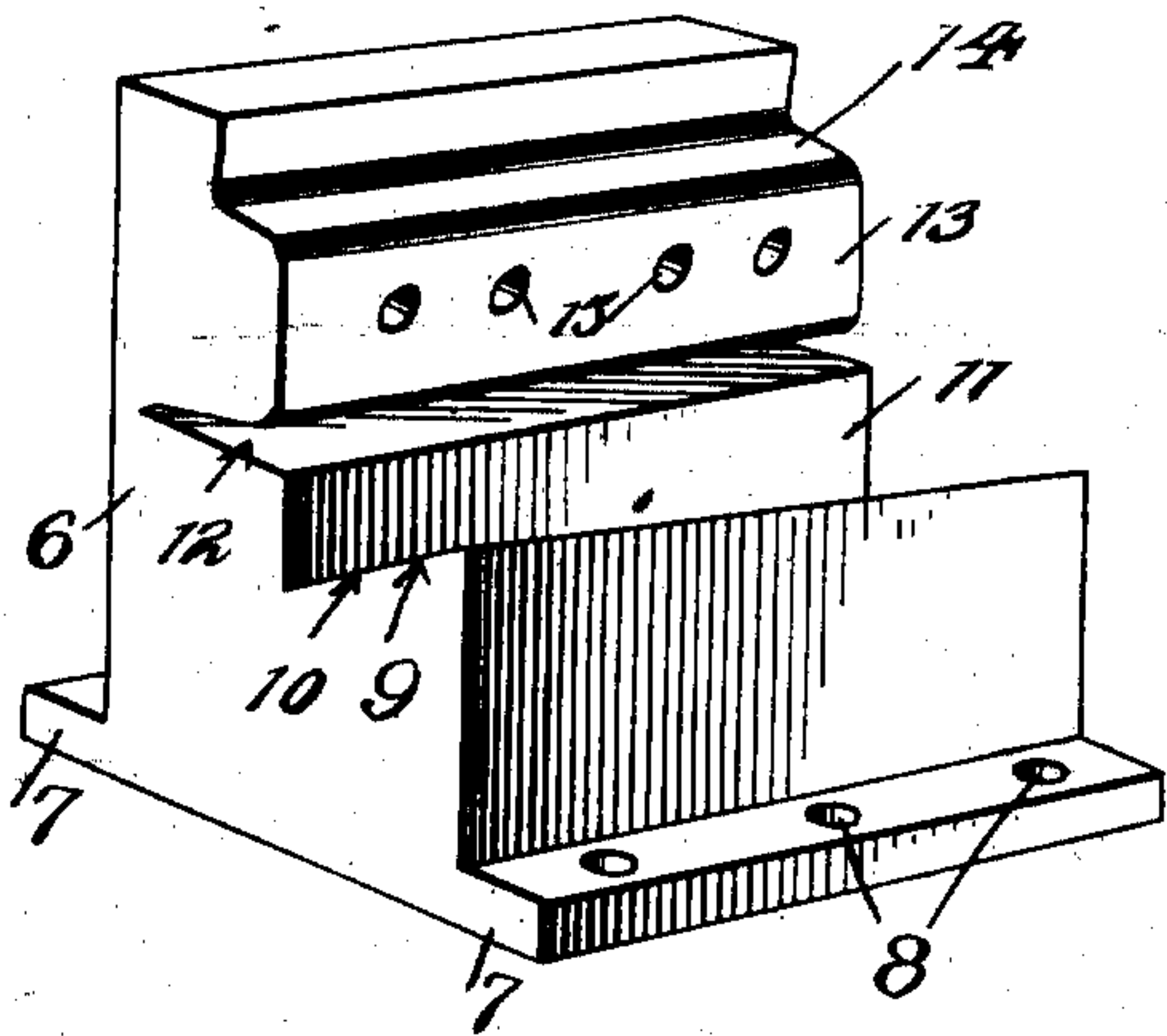
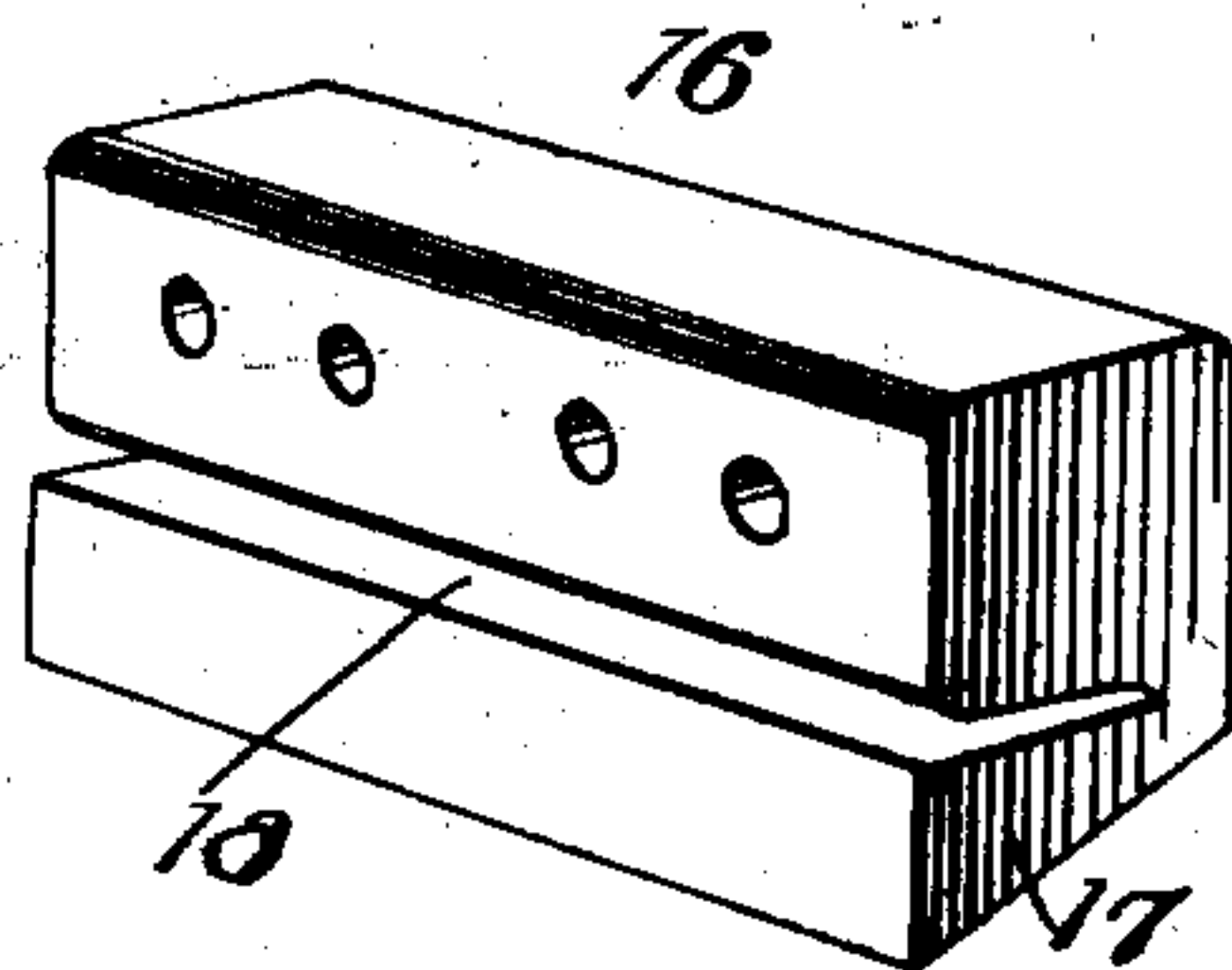


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT.

990,657.

Specification of Letters Patent.

Patented Apr. 25, 1911.

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*To all whom it may concern:*

Be it known that I, WILLIAM H. JORDAN, a citizen of the United States, residing at Clinton, in the county of Henry and State of Missouri, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to a combined rail joint and chair, and the object of the invention is to provide a device of this character which is of a comparatively simple construction, cheap to manufacture, and which will perform the functions for which it is intended with ease and accuracy.

Another object of the invention is to provide a device of this class comprising a chair proper having one of its sides so formed as to engage the outer face of a pair of rails, the opposite face of the rail having an inclined cut away portion adapted for the reception of a key which is provided with a rail web and a rail base receiving portion, whereby both sides of the rail are securely braced and lateral movement as well as the sinking movement of the rails at their point of juncture is effectively prevented, thus adding to the life of the rails as well as to the comfort of the traveling public.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a rail chair connected with and supporting the meeting ends of a pair of rails. Fig. 2 is a similar view of the chair proper. Fig. 3 is a similar view of the key or wedge.

In the accompanying drawings the numerals 1 designate the meeting ends of a pair of rails. These rails 1 are constructed in the ordinary manner, each comprising a head 2, base flange 3, and connecting webs 4. The webs 4 adjacent the ends of the rails are each provided with a plurality of openings which are adapted for the reception of suitable bolts and nuts whereby the rail ends are connected with the rail chair or support.

The numeral 5 designates the rail chair proper. This chair is constructed of some suitable metal and comprises a substantially rectangular body portion 6. The chair 5 adjacent its lower longitudinal faces is provided with longitudinally extending offsets or feet 7, and each of the said feet are pro-

vided with a plurality of openings 8 which are adapted to receive spikes or other similar securing devices whereby the said chair may be sustained upon rail ties or other supporting devices. If desired, the said chair may be effectively secured to the road bed, but it is preferable to provide the said chair with a more effective support so that danger of displacement of the rail will be entirely obviated.

The chair 5 is centrally cut away a suitable distance from its upper face, and the lower wall provided by the said cutting away, designated by the numeral 9, is beveled as at 10 toward the wall formed by the said cutting away. This wall 10 inclines from one of its ends toward its opposite end, as clearly illustrated in the said figures of the drawing, and the purpose of which will presently be set forth. The vertical wall 11 is provided with a longitudinally extending recess 12, the same being of a shape corresponding to that of the base flange 3 of the rails upon one of their faces. Positioned directly above this longitudinally extending depression 12 is a tongue 13, the latter having its upper face beveled as at 14 so as to engage beneath the balls of the rails, while the inner face of the said tongue contacts the webs 4 of the rails. The top of the chair is arranged at a level with or slightly below the heads of the rails 1. The chair is provided with a plurality of openings 15 which are adapted to aline with the openings in the webs of the rails.

The numeral 16 designates the key or wedge member. This member 16 may be constructed of any suitable metal and has its lower wall beveled as at 17. The said lower wall 17 is beveled from one of its ends to its opposite end, and the said key is of a length corresponding with the length of the chair. The beveled and inclined wall of the said key 16 is adapted to engage the beveled and inclined wall 10 of the chair member so that the same provides a substantially dove-tailed joint when the wedge is positioned upon the chair. The width of the key 16 corresponds with that of the cut away portion provided by the chair, and the said key has its inner face provided with a longitudinally extending recess or depression 18 which is adapted to engage the base flanges upon the inner faces of the rails. The wedge member has its upper face terminating with the under faces of the heads



or balls of the rail so as to provide for the flanges of the rolling stock passing thereover. The wedge member is further provided with a plurality of openings, and the  
 5 said openings are adapted to aline with the openings formed in the webs of the rails and in the chair proper, and all of these openings are adapted for the reception of  
 10 securing elements such as bolts and nuts, designated by the numeral 19.

From the above description, taken in connection with the accompanying drawings, it will be noted that I have provided an extremely simple and effective device for the  
 15 purpose intended, and while I have illustrated and described the preferred embodiment of the improvement, as it now appears to me, changes in minor details of construction, within the scope of the following  
 20 claims may be resorted to if desired.

Having thus fully described the invention, what I claim as new is:—

1. A rail joint comprising a substantially rectangular chair member, said chair having  
 25 longitudinally extending feet arranged upon its longitudinal faces, the said chair being centrally cut away its entire length to provide a vertical wall and a longitudinally extending beveled wall, the said beveled wall  
 30 being inclined from one of its ends to its opposite end, the vertical wall being provided with a rail flange engaging recess, a longitudinally extending tongue above the recess and the top of the chair terminating  
 35 approximately on a level with the top of the rails, and a key member adapted to engage the inclined wall and the opposite faces of the rails, substantially as and for the purpose set forth.

40 2. In combination with the meeting ends

of a pair of rails, of a chair for said rails, said chair comprising a substantially rectangular member provided with oppositely arranged longitudinally extending feet, the  
 45 said feet having openings adapted for the reception of securing elements, the chair having its body portion centrally cut away a suitable distance from its top, the lower wall formed thereby being inclined longitudinal-  
 50 ly, and the said lower wall being beveled from one of its ends to its opposite end, the said vertical wall having a longitudinal rail receiving depression, the said wall being provided with a longitudinal tongue adapted to engage the webs of the rails, the  
 55 top of the chair terminating approximately upon a level with the tops of the rails, the rails being provided with openings, the chair being also provided with openings alining with the openings of the rails, a key  
 60 member, said key member having its inner vertical wall provided with a web receiving recess, the lower face of the said key being beveled from its outer face toward its inner  
 65 face and inclined from one of its ends toward its opposite end, said key member adapted to be received within the cut away portion of the chair, the upper portion of the key member adapted to engage the webs  
 70 of the rails, said portion being provided with openings adapted to aline with the openings of the rails and the chair, and securing elements for these openings.

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

WILLIAM H. JORDAN.

Witnesses:

R. F. MILLER,  
 WM. N. OVERBEY.