

No. 745,838.

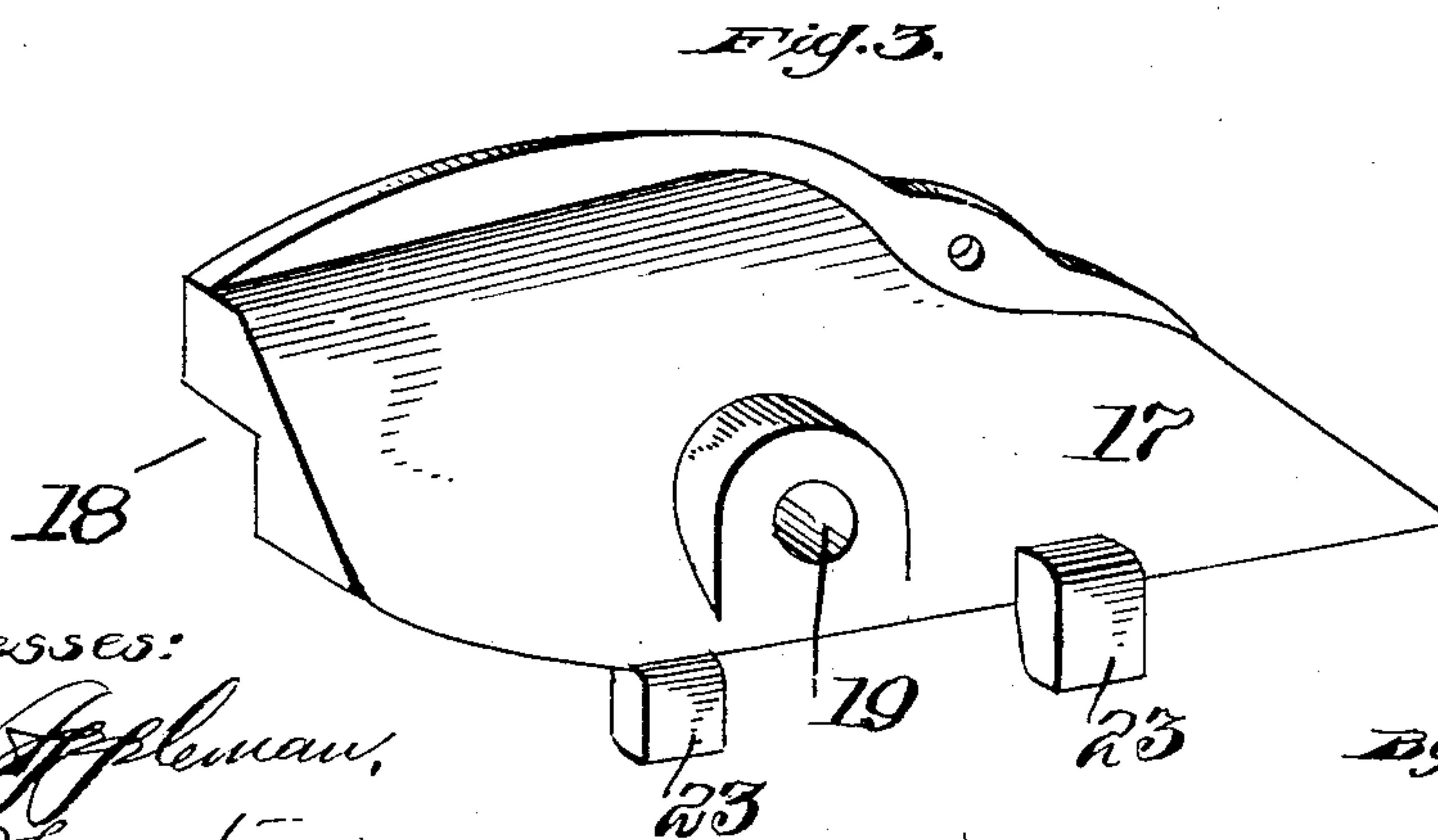
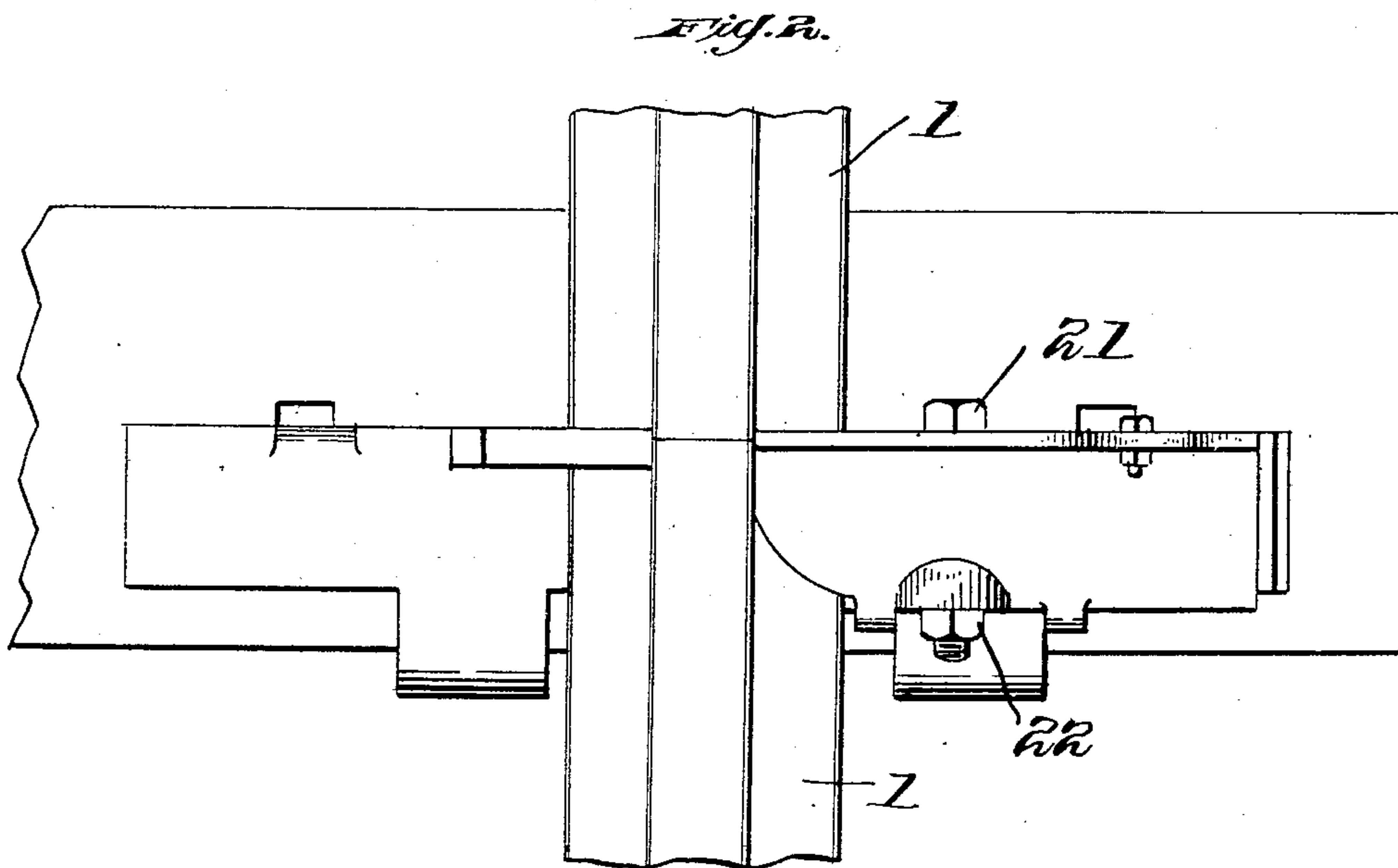
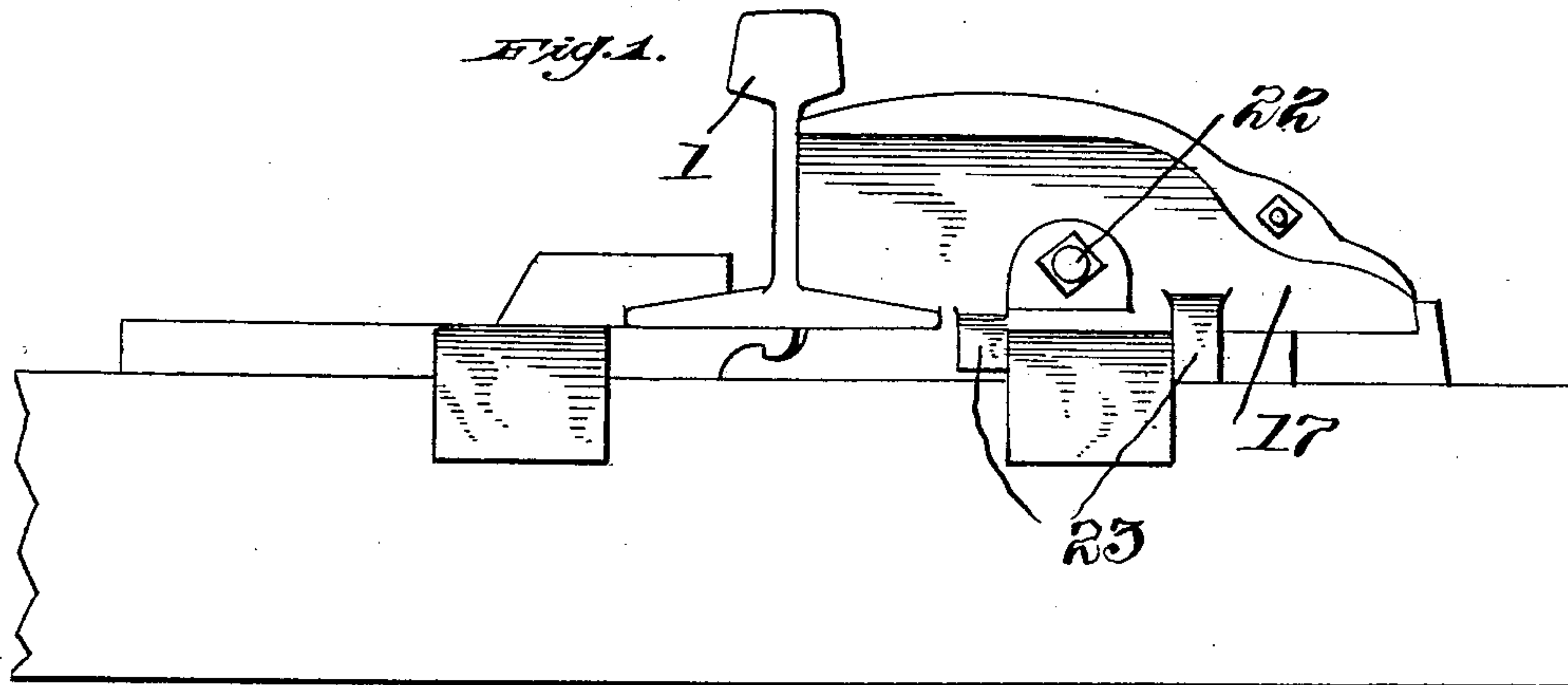
PATENTED DEC. 1, 1903.

E. C. HERROLD & J. L. ORR.  
METALLIC TIE AND RAIL FASTENER COMBINED.

APPLICATION FILED AUG. 4, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



*Witnesses:*

*J. R. Appleman,  
M. Hunter*

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E. C. Herold  
J. L. Orr  
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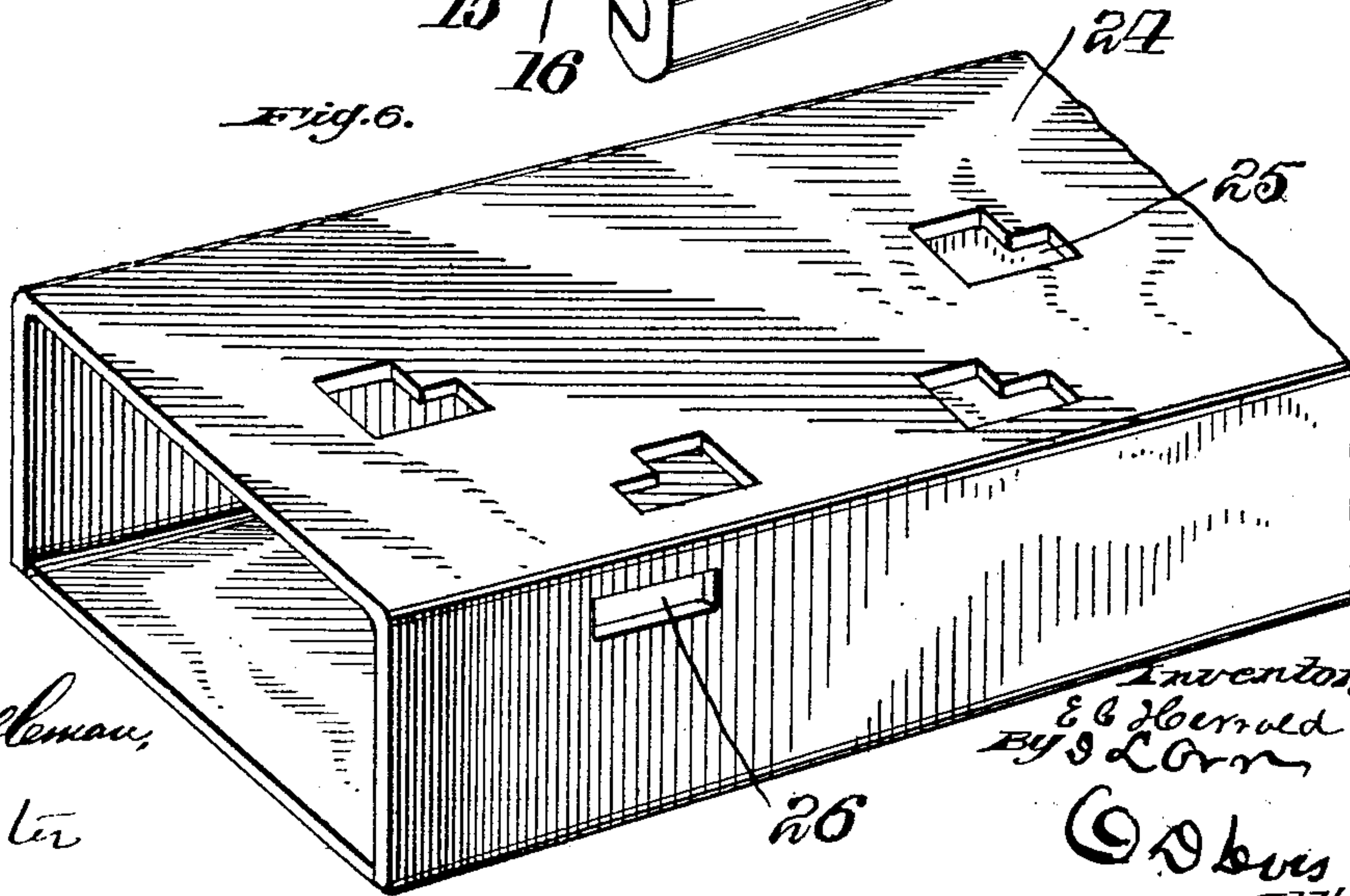
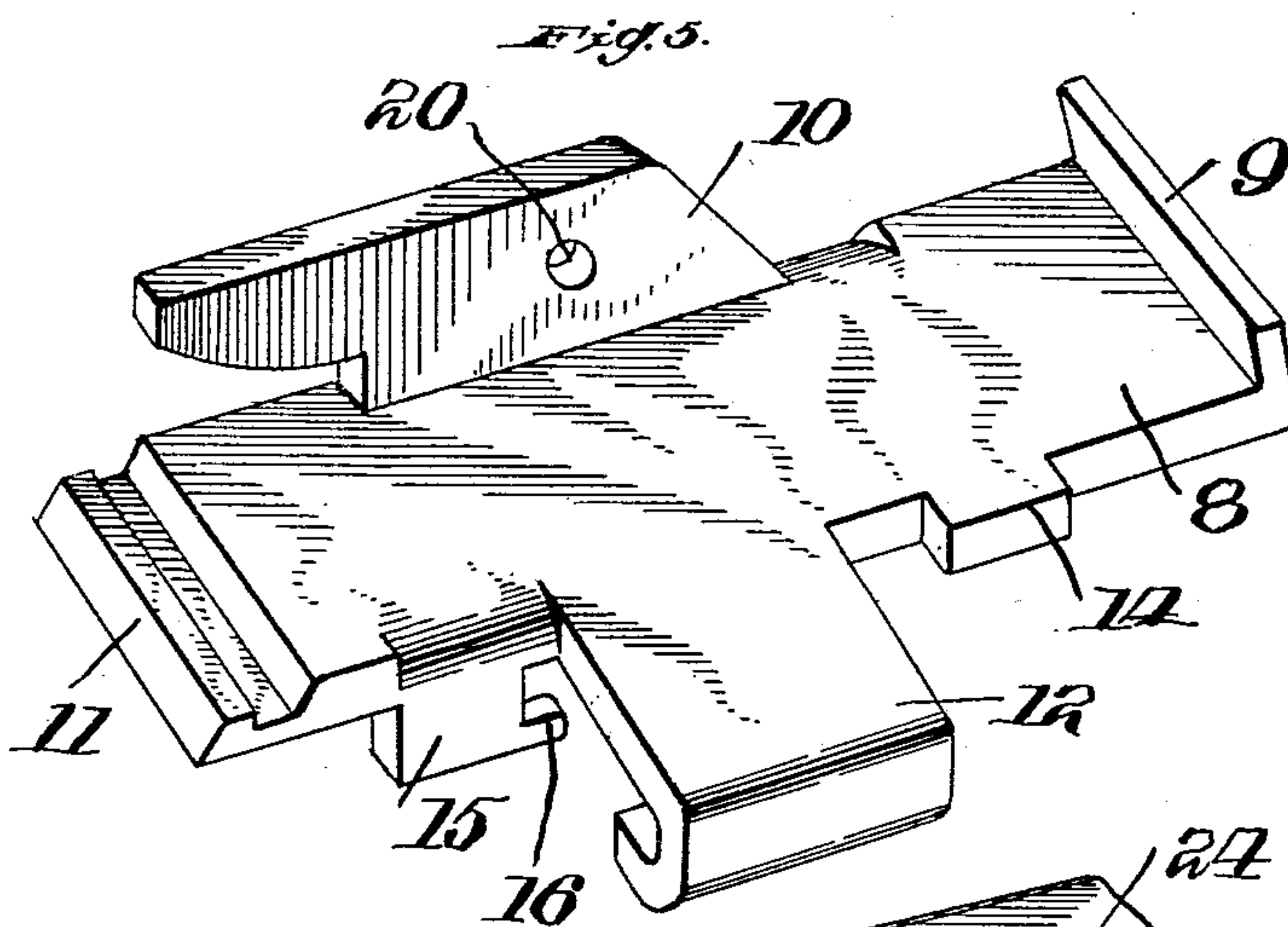
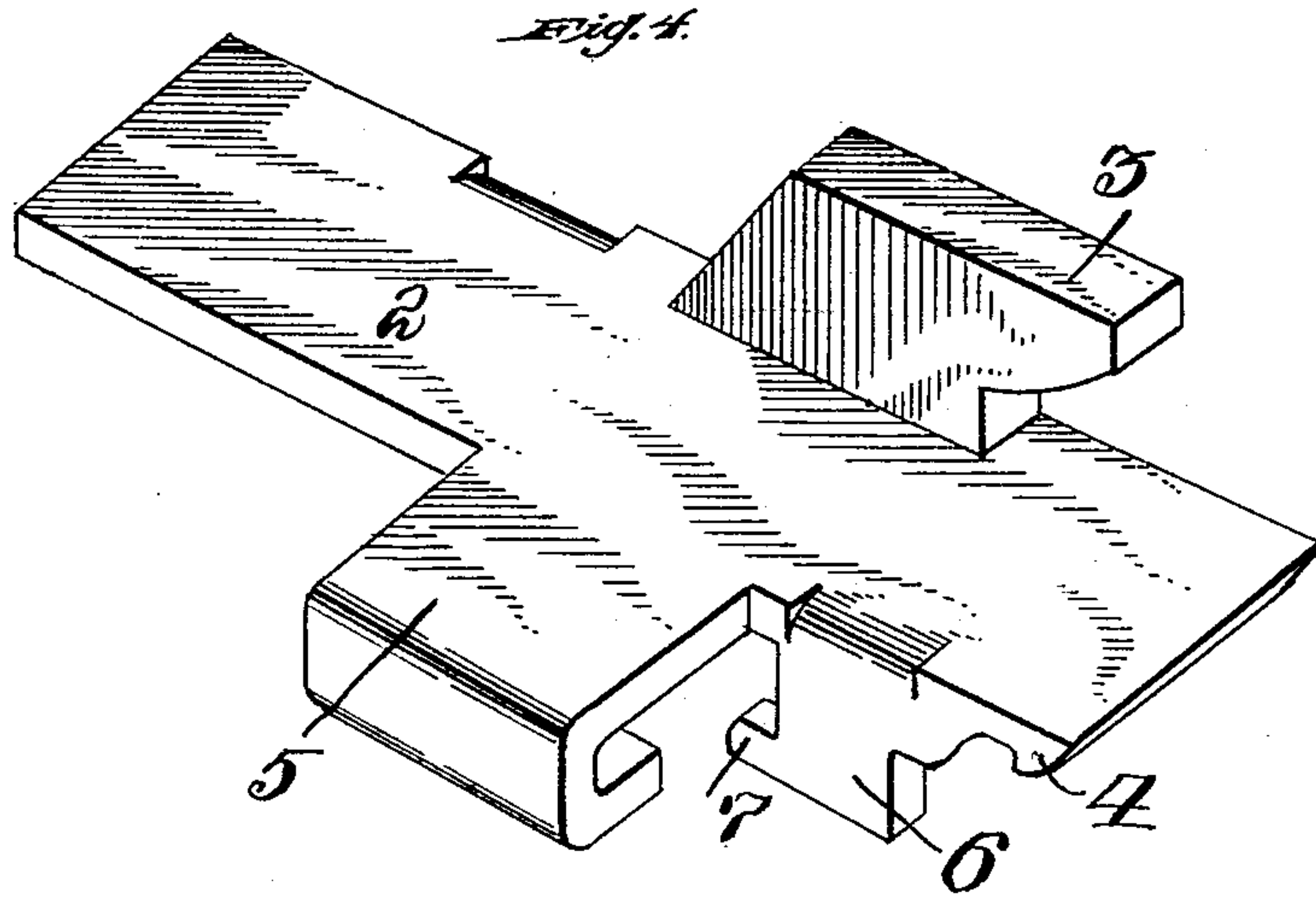
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2 SHEETS—SHEET 2.



Witnesses:  
*J. C. Appleman,*  
*M. Hunter*

Inventors  
*E. C. Herrold*  
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*Att'y.*



## UNITED STATES PATENT OFFICE.

EDWARD C. HERROLD AND JAMES L. ORR, OF PITTSBURG, PENNSYLVANIA.

## METALLIC TIE AND RAIL-FASTENER COMBINED.

SPECIFICATION forming part of Letters Patent No. 745,838, dated December 1, 1903.

Application filed August 4, 1902. Serial No. 118,306. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD C. HERROLD and JAMES L. ORR, citizens of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in a Metallic Tie and Rail-Fastener Combined, of which improvement the following is a specification.

10 This invention relates to certain new and useful improvements in metallic ties and rail-fasteners combined, and has for its object the provision of novel means whereby the rails may be securely held in position and  
15 allowed to expand and contract without loosening the rail-joint.

The present invention has for its further object to provide a device of the above-described character that will be extremely simple, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its operation; furthermore, one that will prevent the rails from spreading.

Our invention further contemplates to construct a chair of two interlocking sections and to provide a brace upon one of the chair-sections that will give additional strength and support to the outer web of the rail and base thereof.

30 With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

35 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

40 Figure 1 is an end elevation of a rail with my improved rail-joint and metallic tie secured in position. Fig. 2 is a top plan view thereof. Fig. 3 is a perspective view of the brace. Fig. 4 is the plate forming a portion  
45 of the chair and carrying the interlocking member. Fig. 5 is a perspective view of the outer plate, which likewise forms a portion of the chair carrying the interlocking member. Fig. 6 is a perspective view of the end of the  
50 tie.

In the drawings the reference-numeral 1 represents the rails. The inner plate 2 carries

ries a portion of the chair 3 and an interlocking member 4, this plate 2 also having formed integral therewith a hooked extension 5 and a  
55 downwardly-extending lug 6, carrying a head 7. The corresponding plate 8 carries at its outer end the upward extension 9 and the chair portion 10, formed integral therewith. The other end of said plate carries the interlocking  
60 member 11, which is adapted to engage with the interlocking member 4 of the plate 2. This plate 8 carries a corresponding hooked extension 12, an outwardly-extending lug 14, and a corresponding downwardly-extending  
65 lug 15, carrying the head 16. A brace 17 is of approximately the same width as the plate 8 and is secured thereon. This brace is formed with a cut-away portion 18, adapted to rest upon the integral chair portion 10, and has  
70 also formed therein an opening 19, which registers with the opening 20, formed in the chair portion 10, to receive the bolt 21, which is provided with a nut 22. The brace 17 has also formed integral therewith the depending  
75 lugs 23, which are adapted to straddle the hooked extension 12 of the plate 8. The metallic tie 24 is provided with openings 25 on the upper face thereof to receive the lugs 6 and 15, which when placed in position form  
80 a locking engagement therewith, and the openings 26, formed in the side of the tie, are adapted to receive the hooked extensions 5 and 12, which also form locking engagement therewith.  
85

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

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

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

1. In a device of the character described, the combination of a hollow metallic tie having openings formed therein, interlocking plates forming the chair secured in said openings in said tie, and a brace secured to one of said plates and rails, substantially as described and for the purpose set forth.

2. In a device of the character described,

the combination of a metallic tie having openings formed therein, plates interlocking with one another forming the chair, said plates carrying hooked extensions engaging in said  
5 tie, and a brace bolted to one of said plates engaging the outer web of the rail, substantially as set forth.

In testimony whereof we have hereunto

signed our names in the presence of two subscribing witnesses.

EDWARD C. HERROLD.  
JAMES L. ORR.

In presence of—

JOHN GROETZINGER,  
M. HUNTER.