

No. 846,535.

PATENTED MAR. 12, 1907.

J. F. WALKER.
RAIL AND CHAIR.
APPLICATION FILED MAR. 22, 1906.

2 SHEETS—SHEET 1.

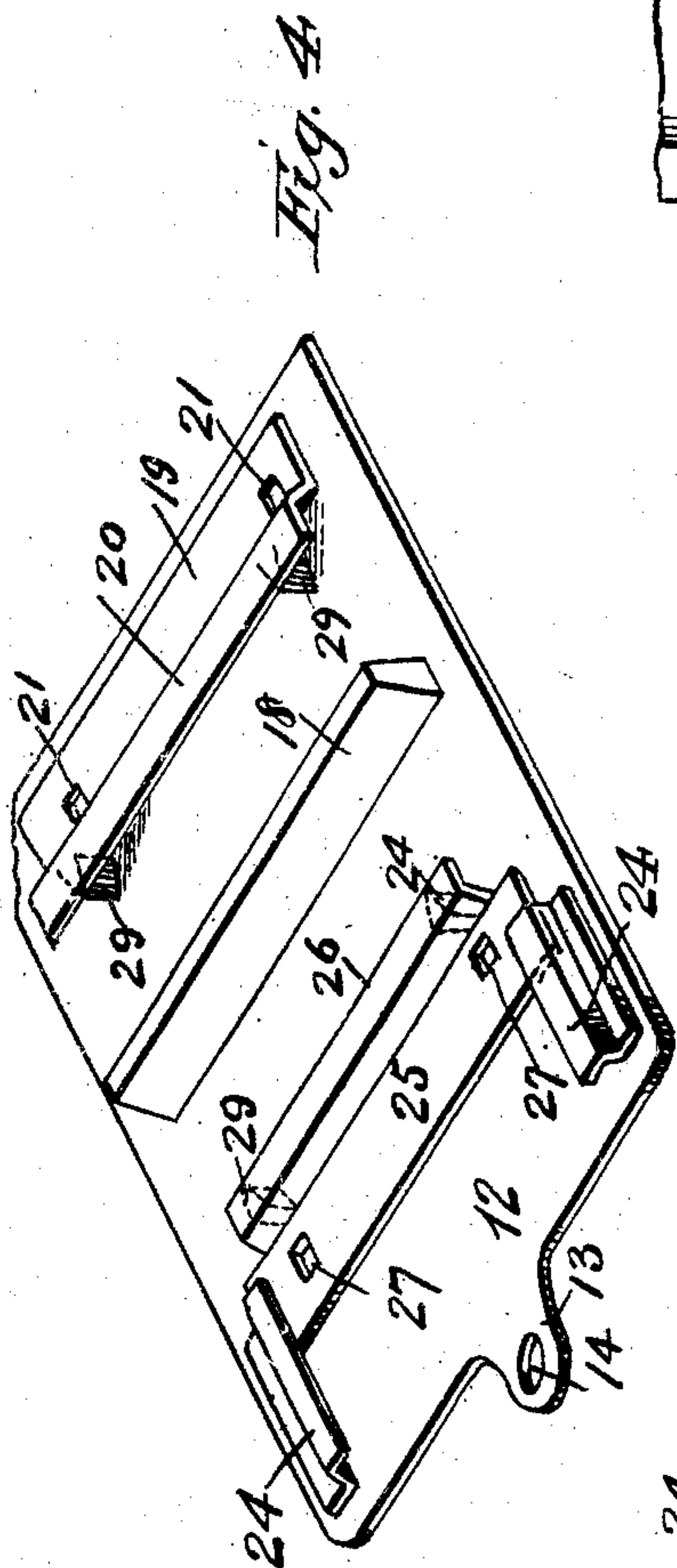


Fig. 4

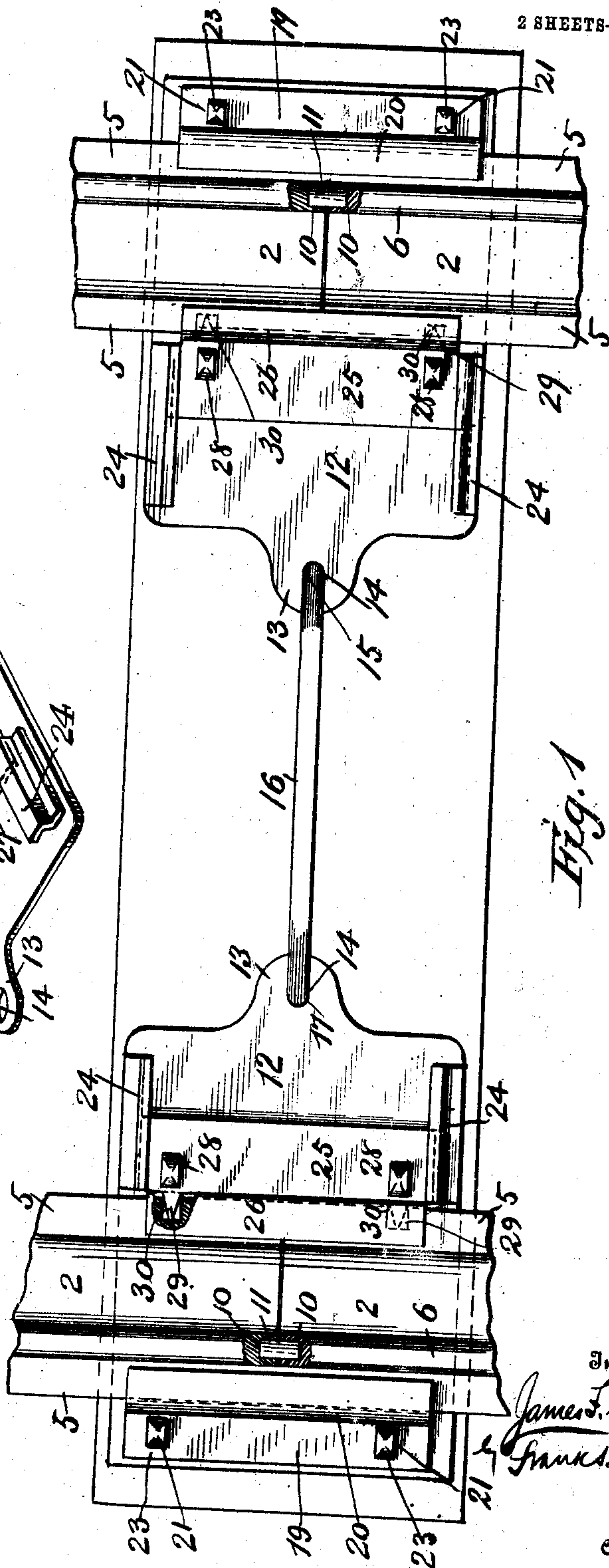


Fig. 1

Witnesses
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2 SHEETS—SHEET 2.

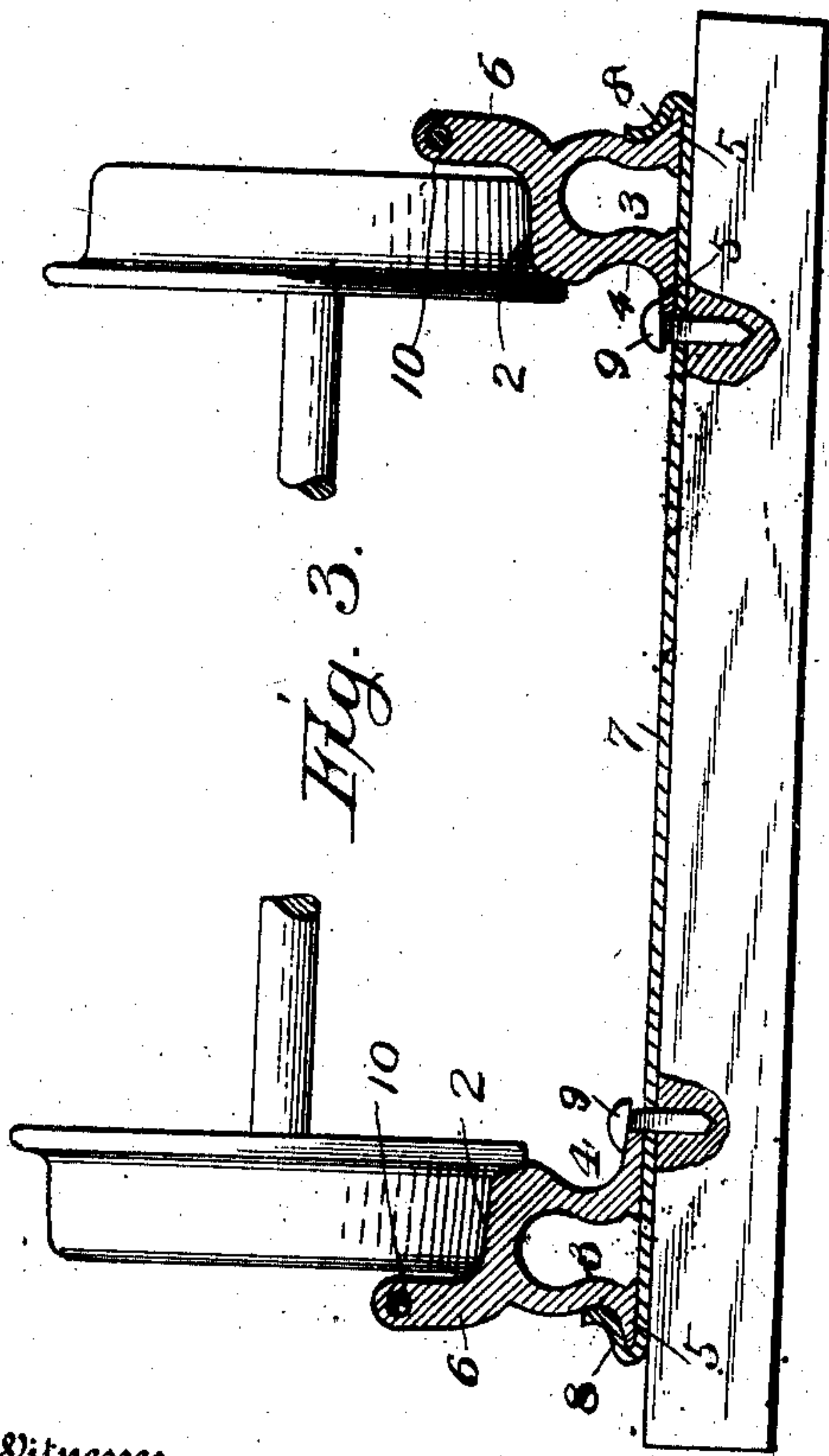


Fig. 3.

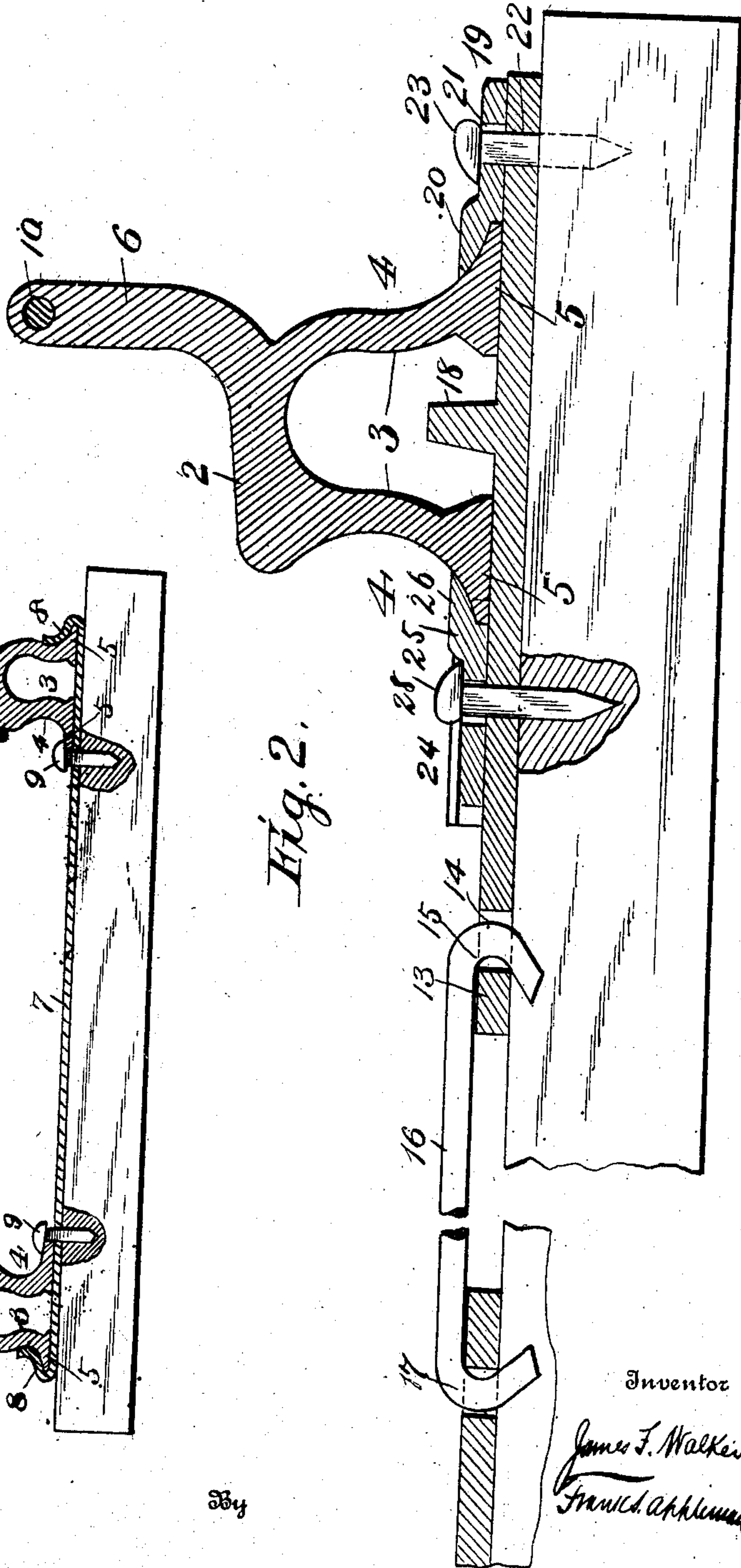


Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES F. WALKER, OF CARTHAGE, MISSOURI.

RAIL AND CHAIR.

No. 846,535.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed March 22, 1906. Serial No. 307,485.

To all whom it may concern:

Be it known that I, JAMES F. WALKER, a citizen of the United States of America, residing at Carthage, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Chair-Rails and Chairs, of which the following is a specification.

This invention relates to new and useful improvements in rails and fasteners therefor; and it is an object of the invention to provide a securing means for the rails that will at the same time prevent the spreading thereof.

It is also an object of this invention to provide a novel rail whereby a wheel or truck is prevented from jumping.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, in which—

Figure 1 is a top-plan view of a fragment of a trackway, showing the invention applied. Fig. 2 is an enlarged sectional view of the device. Fig. 3 is a sectional view illustrating the structure of the rails, together with an antispreading device. Fig. 4 is a perspective view of one of the rail-chairs.

In the drawings, 2 indicates a rail which is approximately U-shaped in cross-section and is provided with the feet 3, which are intended to rest upon the tie or upon the chair-plate. The outer surfaces of the feet 3 are concaved, as at 4, and are provided with the extended bearing-surfaces 5, whereby the rail may rest on the tie with great firmness. Formed along a longitudinal edge, and outer edge when in applied position, of the rail is an upwardly-extending flange 6. This flange is of any suitable height to meet the requirements of practice and is intended to prevent the truck or wheels of a coach or other vehicle from slipping off the rail. This arrangement obviates any possible accident from that cause to a train passing over the tracks.

To prevent the rails from spreading, cross-strips 7 are employed. These strips are positioned a suitable distance intermediate the length of the rails and comprise a body portion

arranged longitudinally of a tie which has its end portions 8 turned up to conform to the outer contour of the feet and bear tightly thereagainst. To hold the member in position, the spike 9 or other suitable securing means is passed through the strip 7 and bears against the edge of the rail or foot thereof. It is to be mentioned that the rails rest upon the member 7.

The meeting ends of the rails or the flanges thereof are provided with recesses 10, which are adapted to receive a dowel 11 in order that the rails may be placed in positive alignment, as it is preferable that the inner faces of the flanges of the rails be flush.

For the meeting edges of the rail a joint is provided that is also intended to prevent the spreading of the rails, this joint being particularly disclosed in Fig. 2. In its construction it comprises a base-plate 12, approximately rectangular in shape and has formed centrally of one of its ends an ear 13, provided with an aperture 14. When in applied position, the ear 13 is to be within the track and the hooked end 15 of the rod 16 engages the aperture 14, while a similar hooked end 17 of the rod engages a similar aperture of a second base-plate arranged oppositely to the first-named plate. As both of these plates are identical in construction, it is to be understood that the following description relates to but one.

Transversely of the base-plate 12 extends a rib or reinforce 18, the object of which is to strengthen the base-plate and to prolong its wear and utility. This rib 18 is formed integral with the base-plate, as shown in Fig. 2, and when the rail 2 rests on said plate this rib is positioned within the hollow portion of the U. It may be here mentioned that when a rail of the ordinary construction is used this rib 18 is omitted in the construction of the joint. Immovably secured near the outer end of the plate 12 is a fish-plate 19, which is provided with a lip 20, conforming to the contour of the outer foot 4 of the rail. The fish-plate 19 is provided with a series of apertures 21, registering with a series of apertures 22 in the base-plate 12, through which the spikes 23 of any ordinary or preferred construction pass, to engage the tie and to hold the plate thereto. No means is shown for immovably securing the fish-plate 19 to the base-plate 12, and as this feature forms no specific detail of the invention the right

is held to so secure the fish-plate to the base-plate in any suitable manner that may fully meet the requirements.

Arranged longitudinally of the base-plate 5 12, near the opposite sides and adjacent the inner end of the base-plate, are guides 24, in which ride the ends of a movable fish-plate 25. This fish-plate has formed intermediate its ends a lip 26, which is adapted to con- 10 form to the contour of the inner support or leg of the rail to bind thereagainst. The fish-plate is provided with a series of apertures 27 within the base-plate, and through these apertures pass the spikes 28. The 15 spikes hold the fish-plate against movement within their guides and also hold the base-plate to the tie.

To further hold the fish-plates in engagement with the rails and to hold the rails 20 against undue longitudinal movement, lugs 29 are formed within the ribs of the fish-plates and are intended to fit within the notches 30 in the legs of the rails.

As the operation of this device is thought

to be clearly apparent from the drawings and 25 the foregoing description, details thereof are held to be unnecessary.

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

In combination with a rail having a longitudinal cut-out portion, a base-plate therefor 30 a rib on the plate extending within the cut-out portion but not contacting with the walls thereof, an immovable fish-plate carried by 35 the base-plate engaging one side of the rail, guides carried by the base-plate and arranged at right angles to the rail, a movable fish-plate for engaging the opposite side of 40 the rail, said plate having extensions engaging the guides.

In testimony whereof I affix my signature, in the presence of two witnesses, this 7th day of March, 1906.

JAMES F. WALKER.

Witnesses:

H. T. HARRISON,
CHARLES M. WILD.