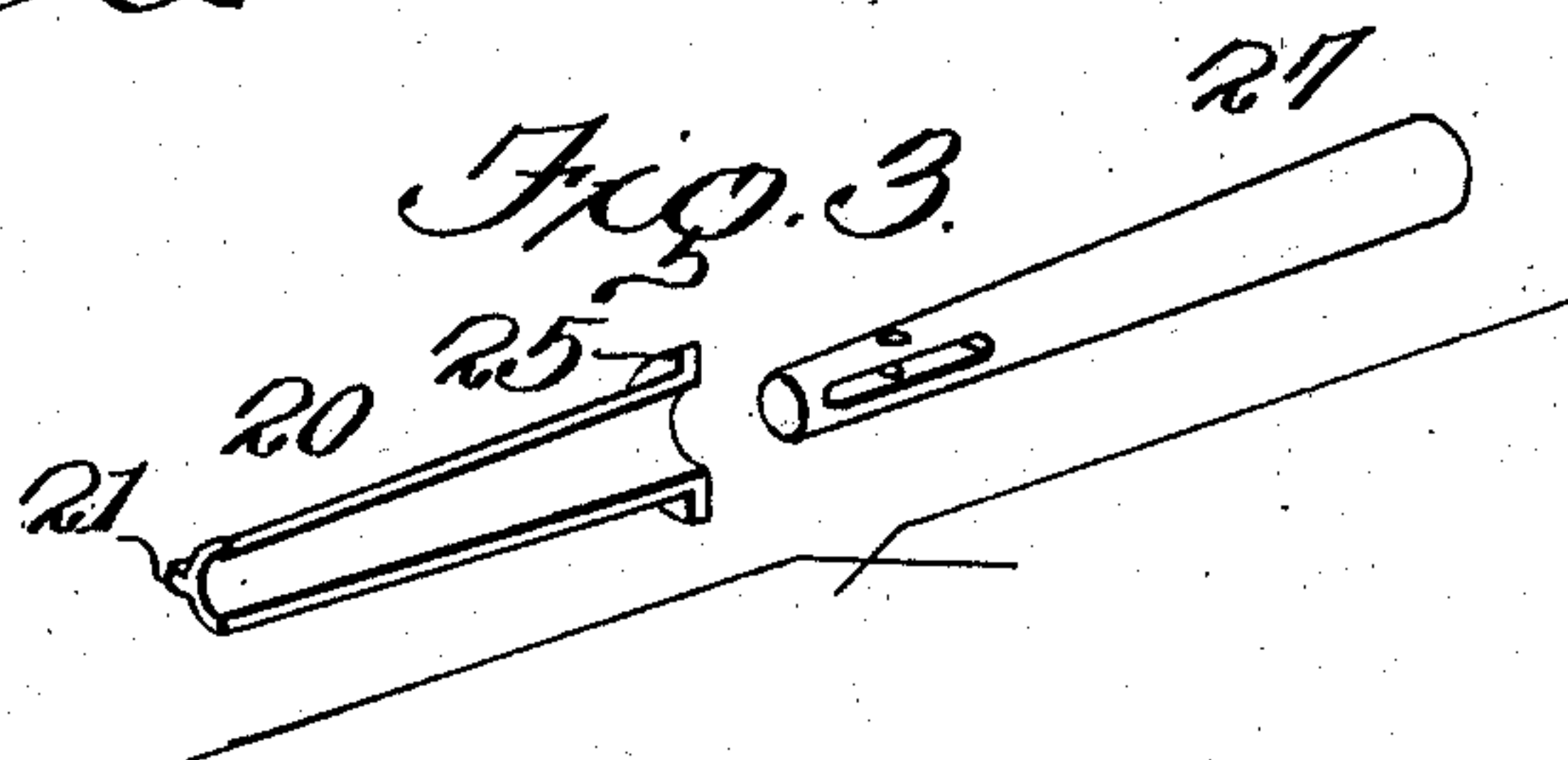
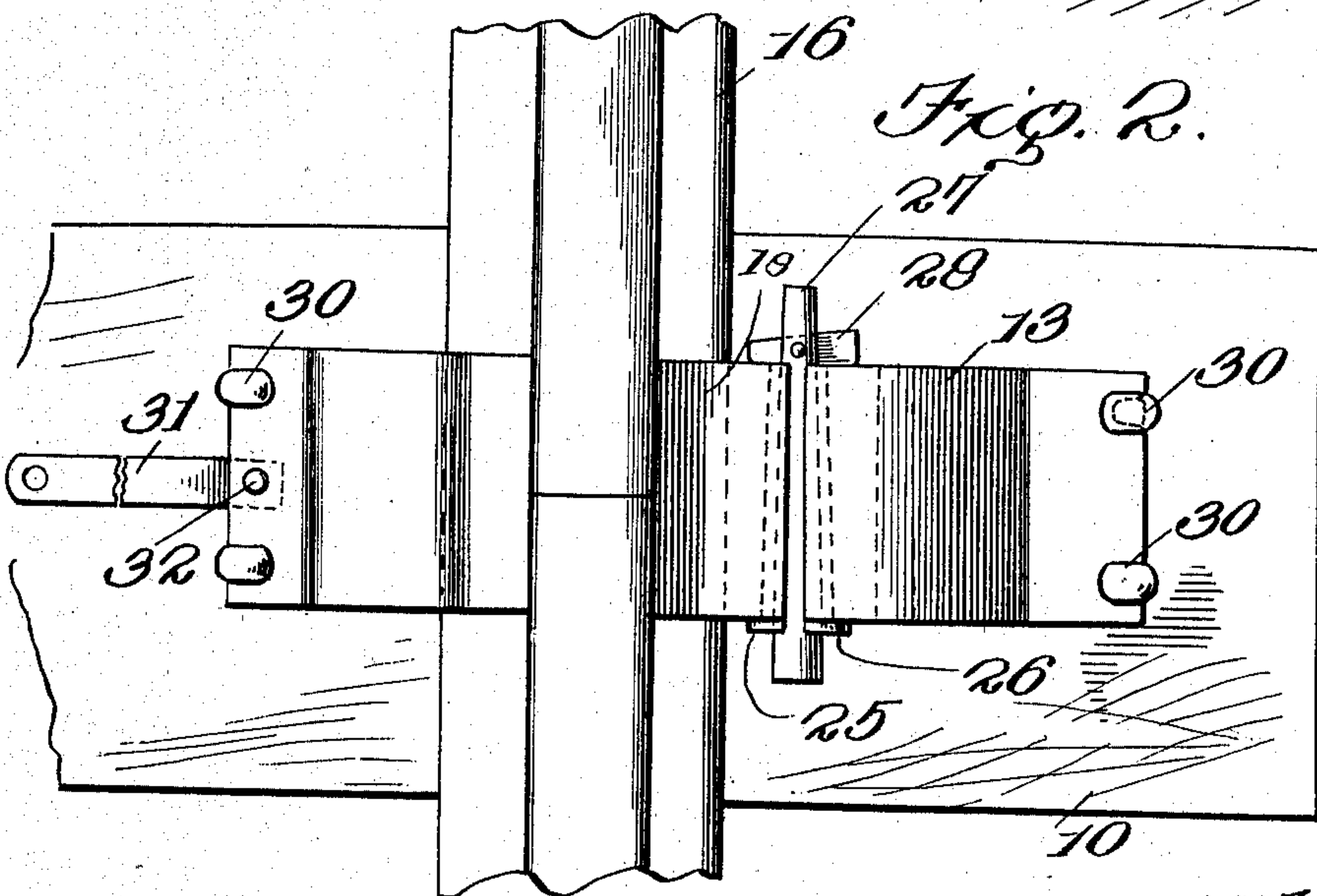
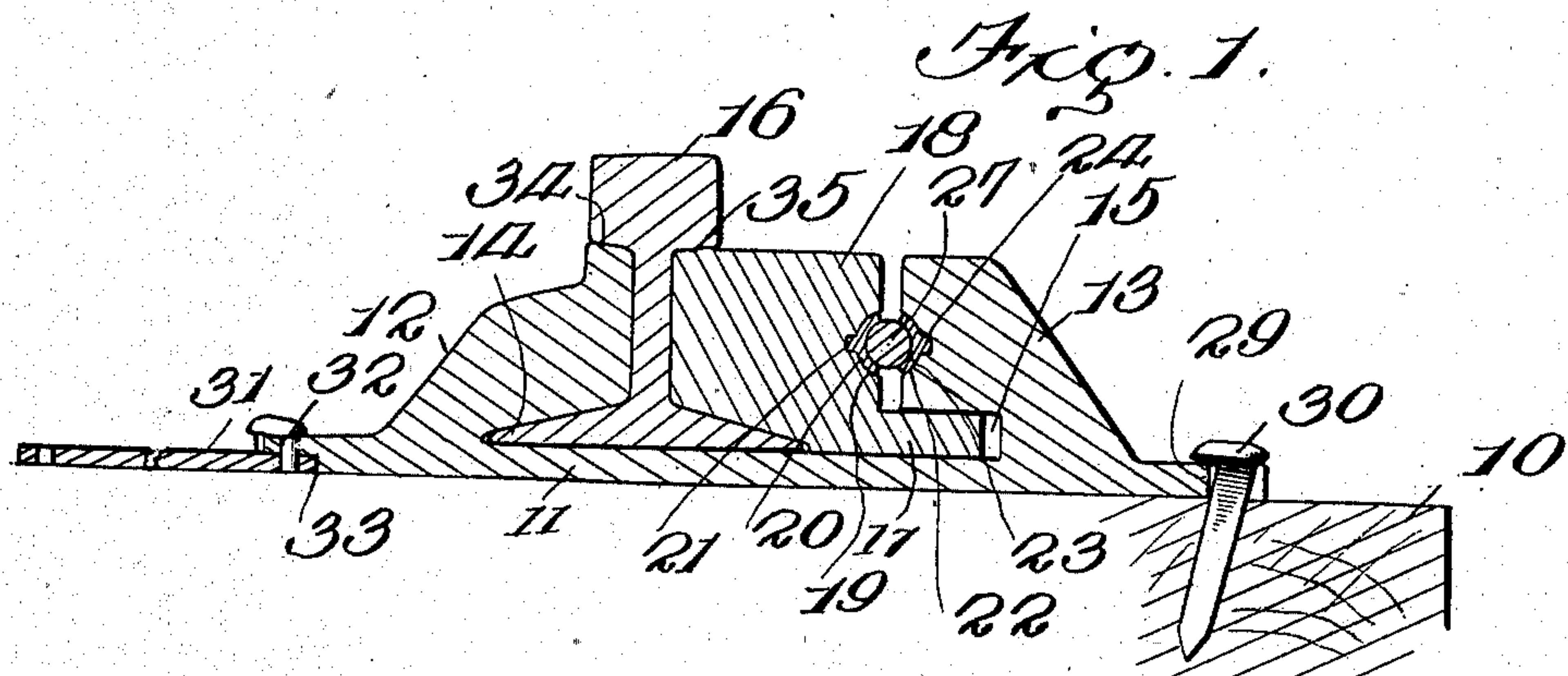


C. D. WRIGHT.
RAIL JOINT AND CHAIR.
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924,713.

Patented June 15, 1909.



Witnesses

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CLARK D. WRIGHT, OF PALESTINE, ILLINOIS.

RAIL JOINT AND CHAIR.

No. 924,713.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed March 8, 1909. Serial No. 481,894.

To all whom it may concern:

Be it known that I, CLARK D. WRIGHT, a citizen of the United States, residing at Palestine, in the county of Crawford and State of Illinois, have invented certain new and useful Improvements in Rail Joints and Chairs, of which the following is a specification.

This invention relates to railroads and has particular reference to that class of devices which are known as rail joints.

The invention has for an object the provision of a combined rail joint and chair which is novel in construction and in which is employed only one fastening means to secure the rail ends in rigid relation to one another.

The invention further aims the provision of a joint of this character which admits of the longitudinal expanding of the rails under atmospheric conditions and which at the same time prevents the rising and falling of the same upon the passing of vehicles thereover.

A still further object of this invention is the production of a combined rail joint and chair which is of simple construction, is readily applied to the extremities of the rails without the necessity of forming apertures for the same and one which may be produced economically.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings in which:—

Figure 1 is a longitudinal section through the rail joint and chair disclosing a rail as applied to the same. Fig. 2 is a top plan view of the rail joint and chair in position, and Fig. 3 is a detailed perspective view of one of the expanding sleeve members and the tapered pin employed in connection therewith.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 10 designates a tie or the like upon which the joint and chair is adapted to be positioned.

The device comprises a base 11 which is provided with enlarged extremities 12 and 13 which extend upwardly and taper outwardly toward the ends of the base 11, the

inner ends of the enlarged portions 12 and 13 being formed with undercut portions 14 and 15, the undercut portion 14 being adapted to receive one side of the flanged base of a rail 16, while the undercut portion 15 is provided for the reception of a flange 17 which is carried upon a sliding block 18. The sliding block 18 is conformed to the curvature of the side of the rail 16 at its inner face while its outer face is provided with a semicircular groove 19 which is longitudinally formed therein and which is adapted to receive a semi-sleeve member 20, the same being provided with a bead 21 longitudinally formed upon the outer face thereof for engagement in a longitudinal groove formed in the block 18 intermediately of the semicircular groove 19 formed therein. The enlarged portion 13 is provided upon its inner face with a semicircular groove 22 into which is adapted to be positioned a second semi-sleeve member 23 which is provided with a bead 24 for engagement in a reduced groove disposed in the enlarged portion 13 intermediately of the semicircular groove 22. The semi-sleeve members 20 and 23 are each oppositely tapered and are provided upon their oppositely tapered ends with flanges 25 and 26 adapted for engagement against the sides of the block 18 and the enlarged portion 13, respectively, for the purpose of preventing the longitudinal displacement of the sleeve members 20 and 23. A tapered pin 27 is inserted between the semi-sleeve members 20 and 23 and is driven therein for the purpose of expanding the same and causing the impinging of the block 18 against the rail 16. The tapered pin 27 is apertured at its reduced extremity through which is positioned a cotter-pin 28 or the like for the purpose of preventing the withdrawal of the tapered pin 27. The base 11 is notched as at 29 at its opposite extremities through which are passed spikes 30 which are engaged in the tie 10 to secure the device thereon.

For the purpose of preventing the spreading of the rails should the spikes become loosened in any manner a tie rod 31 is employed which is adapted to extend across the tie 10 and which is secured at its extremity to the base 11 by means of a spike 32 which is positioned through the inner end of the base 10 and engaged with the extremity of the rod 31, the rod 31 being engaged in a groove 33 formed longitudinally in the under

side of the base 11 for a short distance inwardly of the inner end thereof.

In operation the rails 16 are engaged upon the base 11 against the enlarged portion 12 and the block 18 is inserted thereagainst engaging the flange 17 in the undercut 15. The sleeve members 20 and 23 are now inserted in the semicircular grooves 19 and 22 respectively, the beads 21 and 24 being engaged in the reduced grooves of the block 18 and the enlarged portion 13 respectively when the tapered pin 27 is inserted in one end of the aperture thus formed and driven inwardly. The insertion of the tapered pin 27 causes the divergence of the sleeve members 20 and 23 and thereby slides the block 18 against the rail 16 to impinge the same against the enlarged portion 12 thereby binding the rails 16 rigidly in position. The cotter-pin 28 is now inserted and thus prevents the accidental displacement of the tapered pin 27.

The sliding block 18 and the enlarged portion 12 are each provided with shoulders 34 and 35 for engagement against the ball of the rail to serve as a support to strengthen the same and to prevent the flattening of the adjoining rail ends incident to the pounding of the wheels which pass thereover.

Having thus described the invention what is claimed as new is:—

1. A device as specified comprising a base, enlarged portions formed in the opposite ends of said base and provided with undercut portions, a sliding block disposed through said enlarged portion on said base, a flange formed on said block beneath the outer end of said enlarged portion, tapered sleeves carried by said block and said adjacent enlarged portion and a tapered pin engaged between said sleeves to diverge the same and to impinge said block against a rail disposed

upon said base adjacent the opposite enlarged portion.

2. A device as specified comprising a base, adapted to be supported longitudinally upon a tie, enlarged portions mounted on said base and having undercuts formed therein, a block slidably disposed on said base adjacent one of said enlarged portions, said block and said adjacent enlarged portion having semicircular grooves transversely formed in the opposite face thereof, sleeves engaged in the grooves of said block and said adjacent enlarged portion, beads carried by said sleeves for engagement in the grooves of said block and said adjacent enlarged portion, flanges formed on said sleeve portions for preventing the longitudinal sliding of the same, a tapered pin engaged between said sleeve portions for expanding the same and a cotter-pin positioned through the reduced extremity of said tapered pin for retaining the same in position.

3. A device as specified comprising a base adapted to support the adjacent extremities of two rails, enlarged portions formed on said base at the opposite ends thereof, one of said portions adapted for engagement against the rails, a sliding block disposed on said base between the opposite of said enlarged portions and the rail ends, sleeves mounted transversely and oppositely in said block and said adjacent enlarged portion and a tapered pin engaged between said sleeves for expanding the same to impinge said block against said rail ends.

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

CLARK D. WRIGHT. [L. S.]

Witnesses:

JOHN A. FULLER,
CHESTER W. WRIGHT.