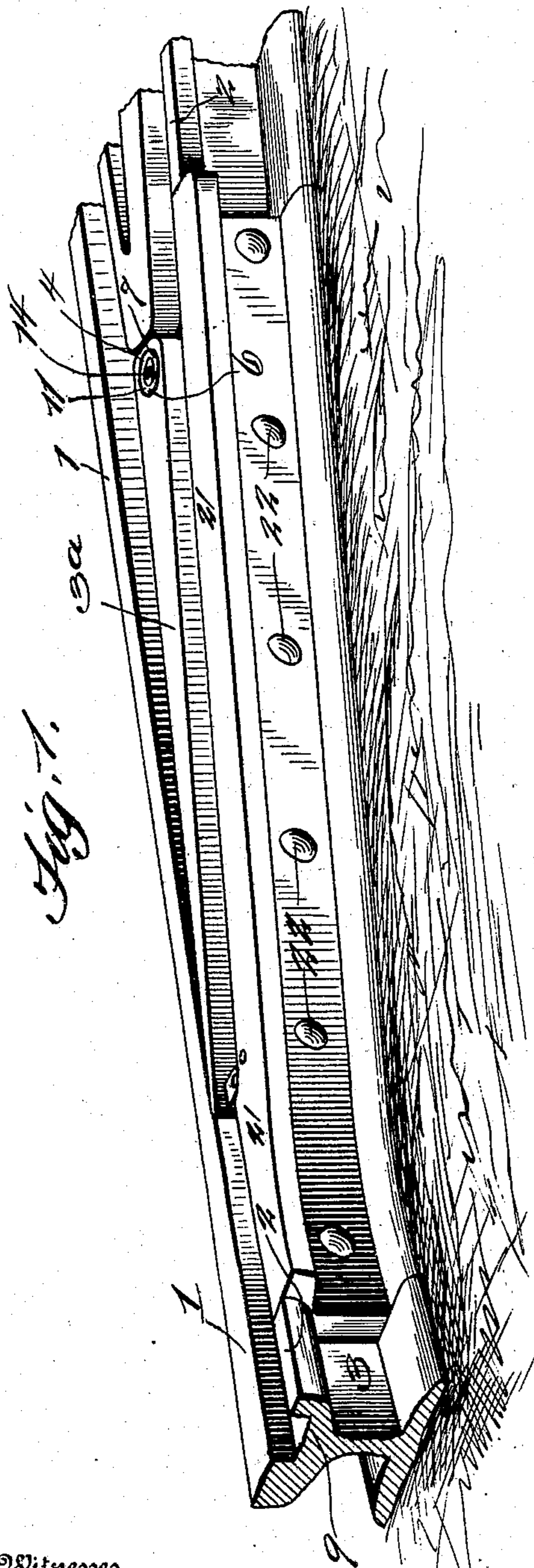


J. WILLIAMS.
RAILWAY SWITCH.
APPLICATION FILED APR. 7, 1908.

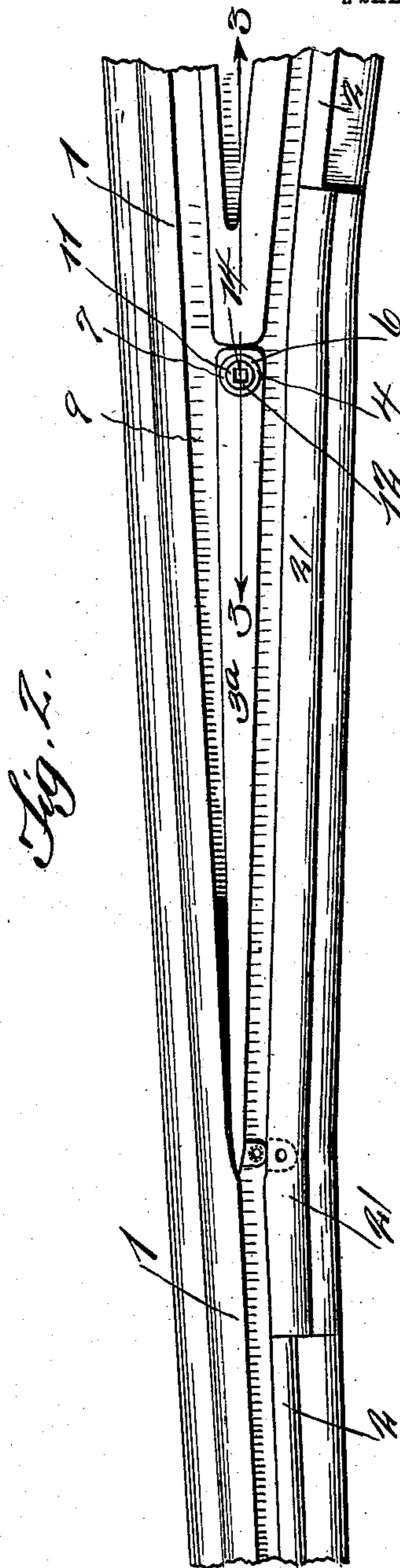
916,082.

Patented Mar. 23, 1909.

2 SHEETS—SHEET 1.



Witnesses
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M. O. Rowling

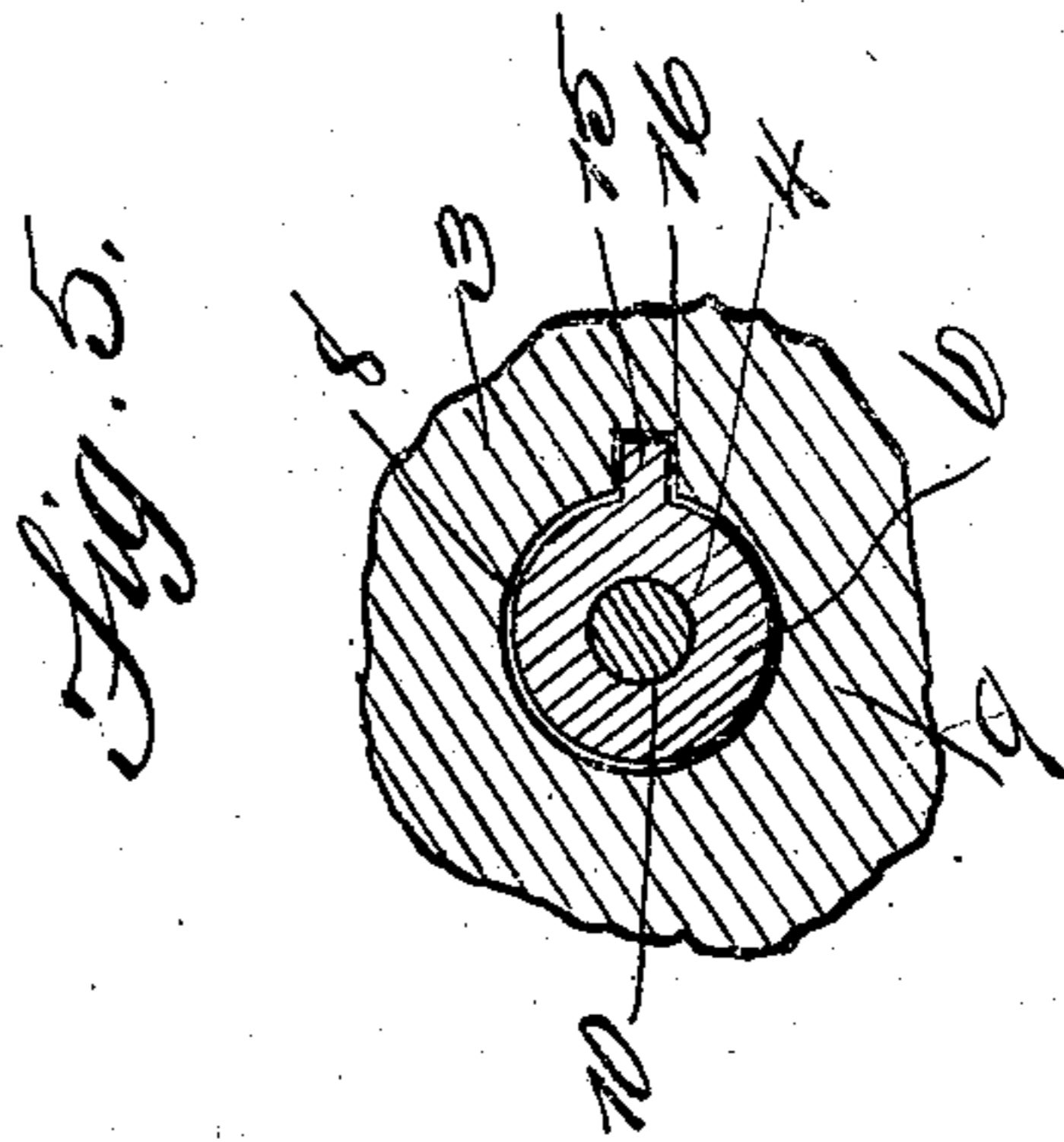
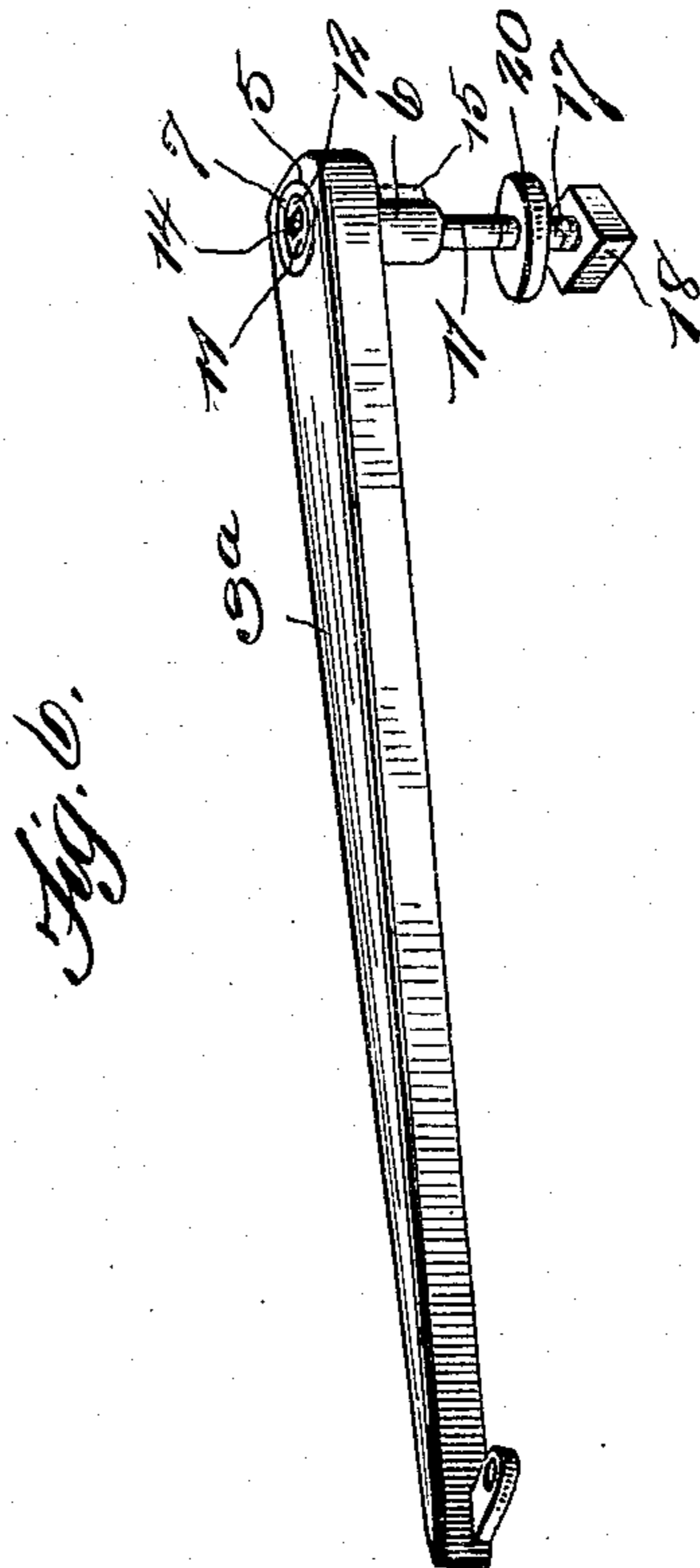
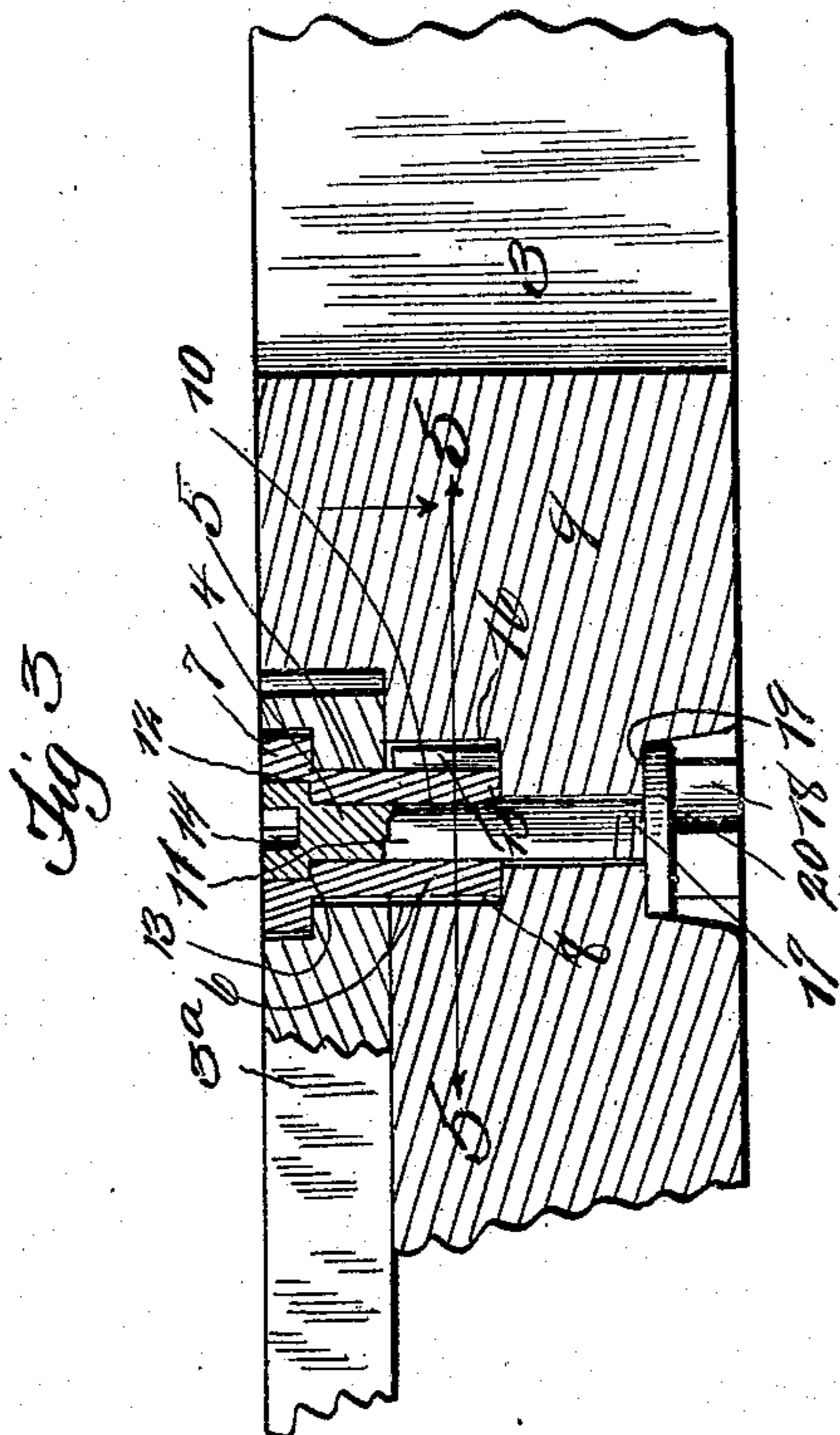
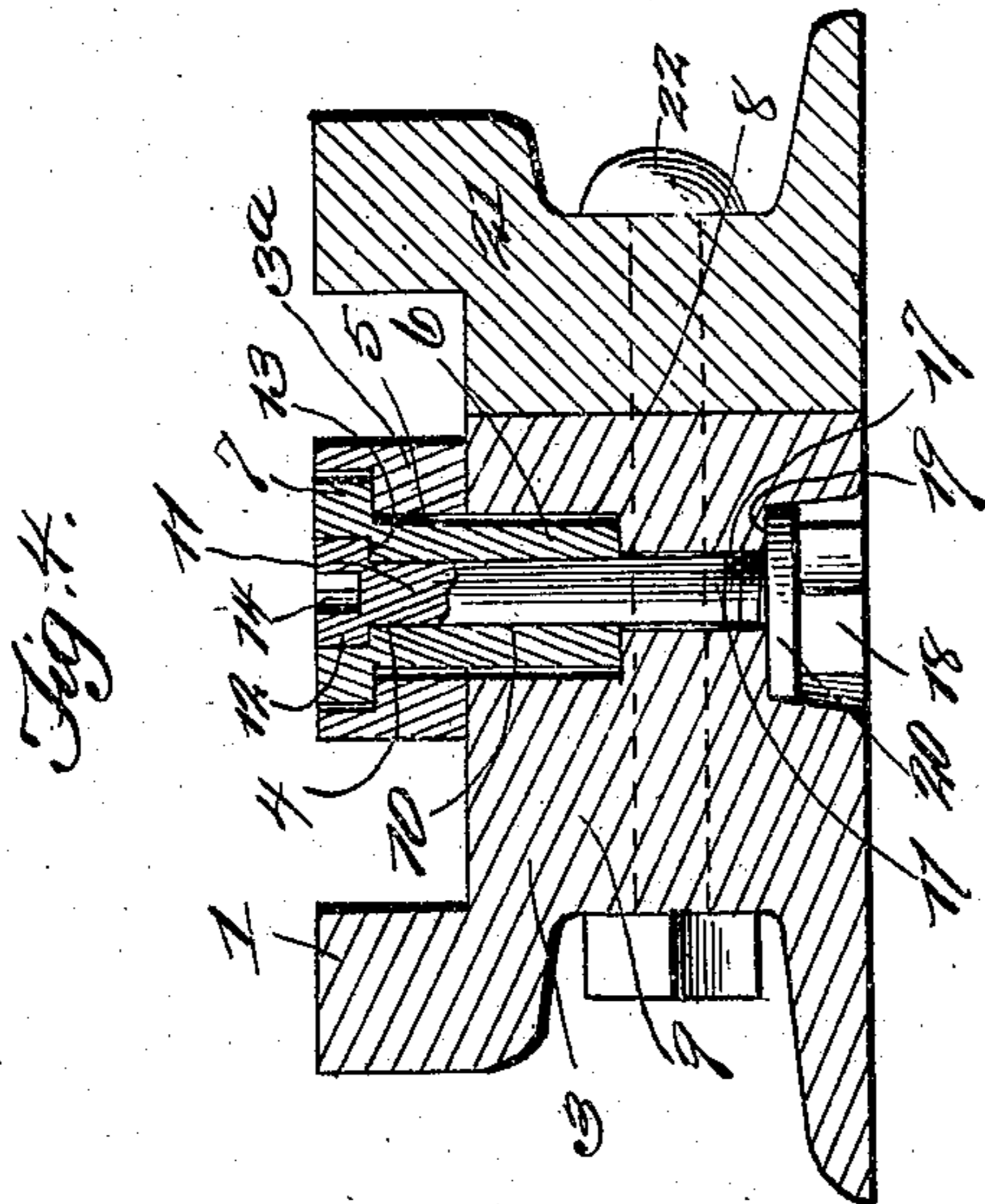


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UNITED STATES PATENT OFFICE.

JOSEPH WILLIAMS, OF OTTAWA, ILLINOIS.

RAILWAY-SWITCH.

No. 916,082.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed April 7, 1908. Serial No. 425,641.

To all whom it may concern:

Be it known that I, JOSEPH WILLIAMS, a citizen of the United States, residing at Ottawa, in the county of La Salle and State of Illinois, have invented a new and useful Railway-Switch; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in switches and it has for its object to provide a simple, inexpensive and durable device of this character adapted to be applied to street car tracks and the like. Heretofore experience has shown that the switches now in use are unsatisfactory, unreliable and are inclined to be expensive.

One of the objects of the invention is to provide an improved tongue or switch point having means for preventing the same from twisting or other irregular movements.

Another object of the invention is to provide a railway switch of the character which will promote accuracy and reliability, in shifting cars from one track to another.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, shown and particularly pointed out in the appended claims.

In the drawings Figure 1 is a perspective view of a portion of a rail, embodying the improved tongue or switch point and other features of construction. Fig. 2 is a top plan view of a rail showing the improved tongue or switch point in position. Fig. 3 is a sectional view on line 3—3 of Fig. 2, clearly showing means for holding a portion of the connection of the tongue or switch point immovable. Fig. 4 is a transverse sectional view through rail 3 showing the bolt 11. Fig. 5 is a sectional view on line 5—5 of Fig. 3. Fig. 6, is a perspective view of the tongue.

Referring to the drawings, 1 and 2 designate two sides of a rail 3 of an ordinary street railway track. Between the sides 1 and 2 of the rail 3 is mounted a tongue 3^a, which is pivoted as shown. The tongue or switch point 3^a is apertured, as at 5, to receive a downwardly positioned sleeve 6, a portion of which, as at 7, is countersunk into the said tongue or switch point, as clearly shown in Figs. 3 and 4 of the drawings. The said sleeve is seated in a recess 8 of the body portion 9 of said rail, as clearly

shown. The said sleeve is provided with a bore 10, for the reception of a suitable bolt 11, the head 12 of which is seated within a recess 13 of said sleeve, as clearly shown in Figs. 3 and 4 of the drawings. In the head of this bolt 11 a rectangular recess 14 is provided, for the reception of a suitable wrench, of a shape suitable to be received by said recess, whereby the bolt may be manipulated for the detachment of the switch point or tongue, as will be clearly manifest.

To prevent the sleeve from rotating, as the switch point or tongue is manipulated to one side or the other, a suitable key or rib 15 is provided, which is formed integral upon the lower portion of the sleeve, as clearly shown; this key or rib is received by a recess 16, formed in the body portion 9 of the rail, and in this way the sleeve is prevented from being rotated. It will be noted that this rib or key 15 is of a length that will not allow the switch point or tongue to be retarded in its movement. The bolt 11 is threaded, as at 17, for the reception of a suitable nut 18, between which and a shoulder 19, of the body portion 9 of the rail, a suitable washer 20 is positioned, for obvious purposes. The body portion 9 of the rail is provided with a suitable guard member 21, which is secured by means of bolts 22, as shown clearly in Figs. 1 and 4 of the drawings. The switch point or tongue is operable between this guard 21 which forms one of the sides of the rail, and the side 1 of the rail, as seen clearly in Figs. 1 and 2 of the drawings.

From the foregoing, the essential features, elements and the operation of the device, together with the simplicity thereof, will be clearly apparent.

Having thus fully described the invention, what is claimed as new and useful, by the protection of Letters Patent, is:—

1. In a device as set forth, the combination of a rail having a pivoted tongue, a sleeve and bolt connection for forming the pivot of said tongue, and means to prevent the sleeve from rotating as the tongue is manipulated.

2. In a device as set forth, the combination of a rail having a pivoted tongue, a sleeve and bolt connection for forming the pivot of said tongue, said sleeve having a key or rib, said rail having a recess to receive said rib or key to prevent rotating of the sleeve as the tongue is manipulated.

3. In a device as set forth, the combina-

tion of a rail having a pivoted tongue, said tongue having an aperture, a sleeve mounted in said aperture, a bolt and nut for securing the tongue and sleeve in position with relation to the rail, said rail having a recess to receive said sleeve, said sleeve having a key or rib, said rail having an additional recess merging into the first-named recess to receive said key or rib to prevent rotation of the sleeve as the tongue is manipulated.

4. In a device as set forth, the combination of a rail having a pivoted tongue, said tongue having an aperture, a sleeve mounted in said aperture, said rail having a cylindrical recess to receive the lower portion of the

sleeve, a nut and bolt for securing the tongue and sleeve in position with relation to the rail, said rail having a rectangular recess merging into the circumference of the cylindrical recess, said sleeve having a key or rib received by said rectangular recess to prevent rotation of the sleeve as the tongue is manipulated.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH WILLIAMS.

Witnesses:

A. E. BLACKBURN,
J. ACHELPOHL.