

No. 679,682.

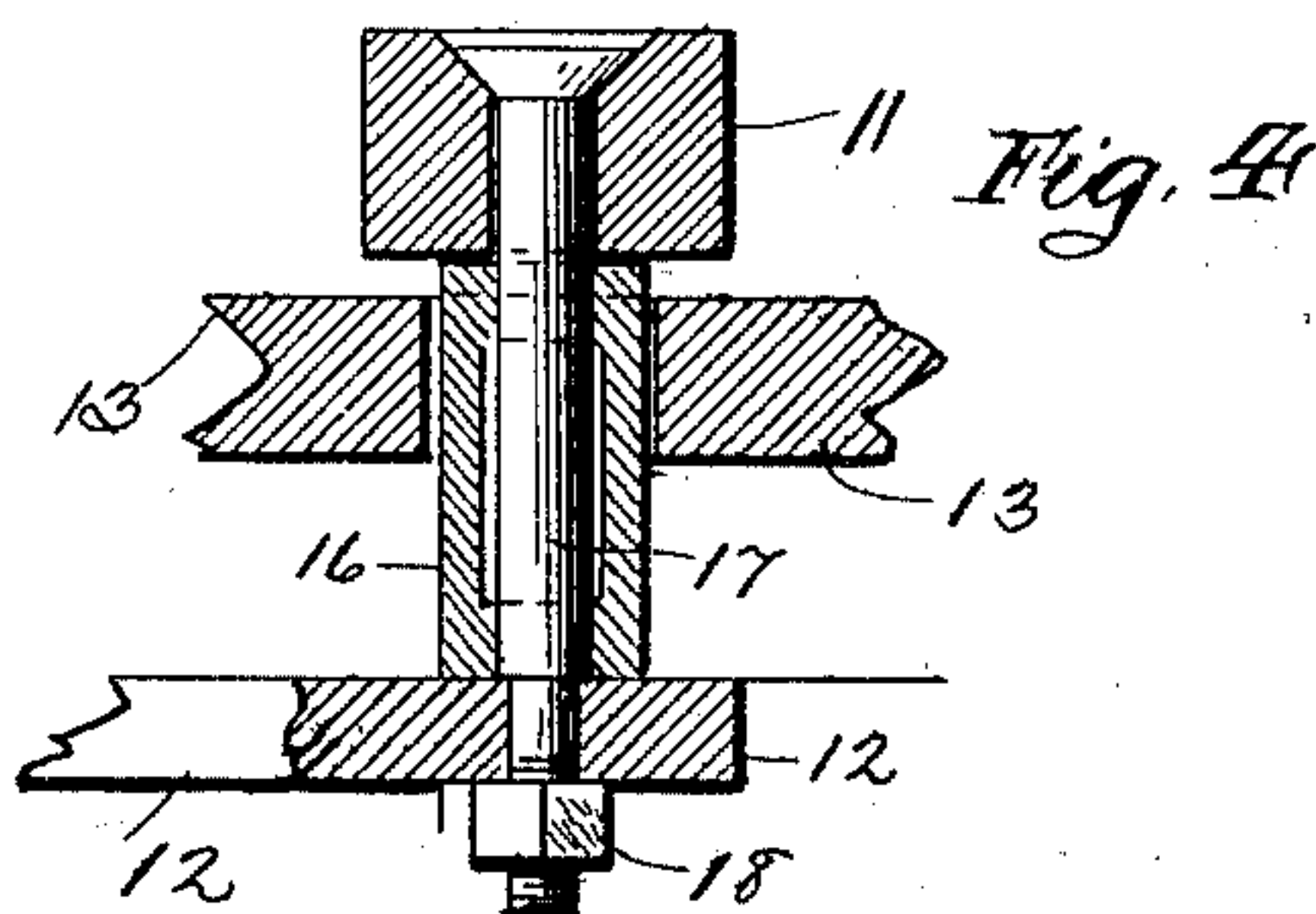
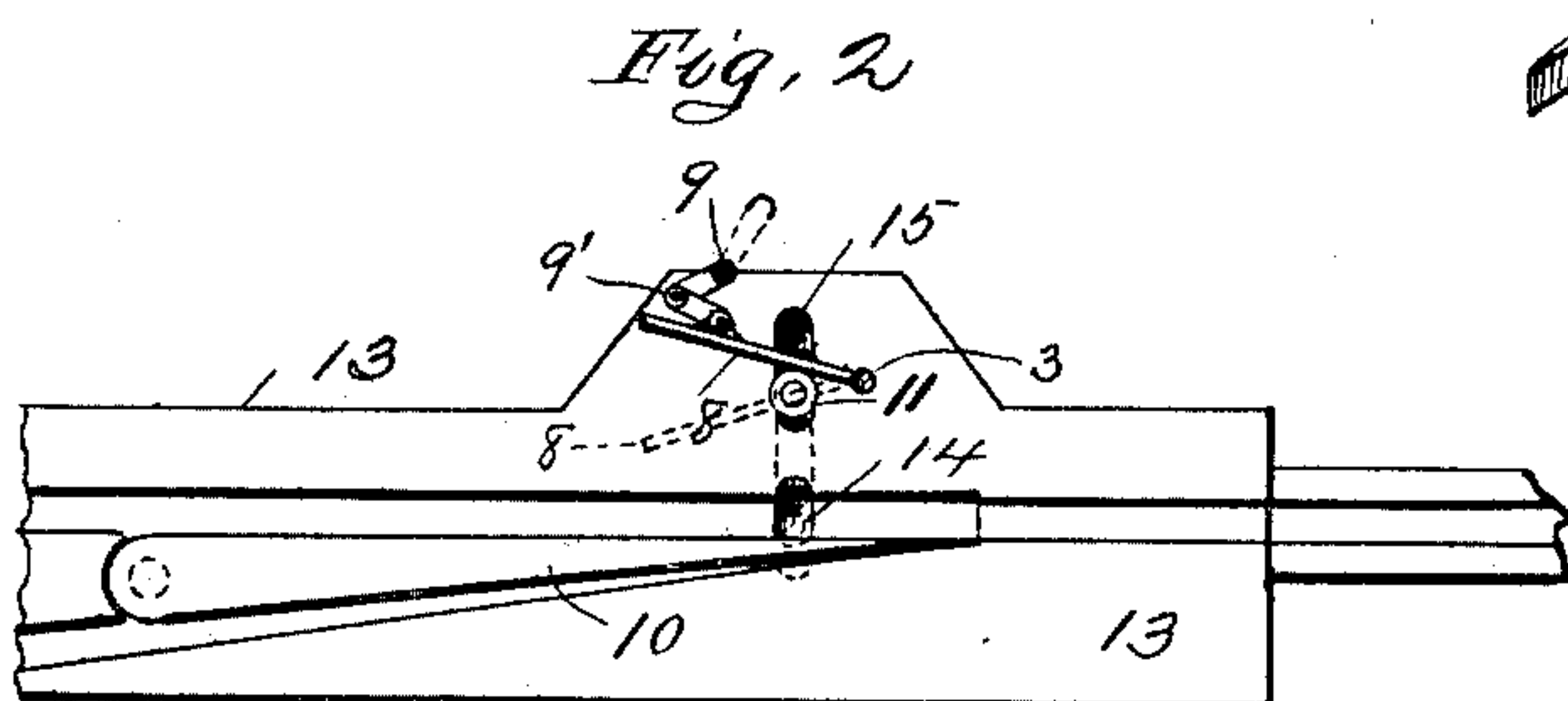
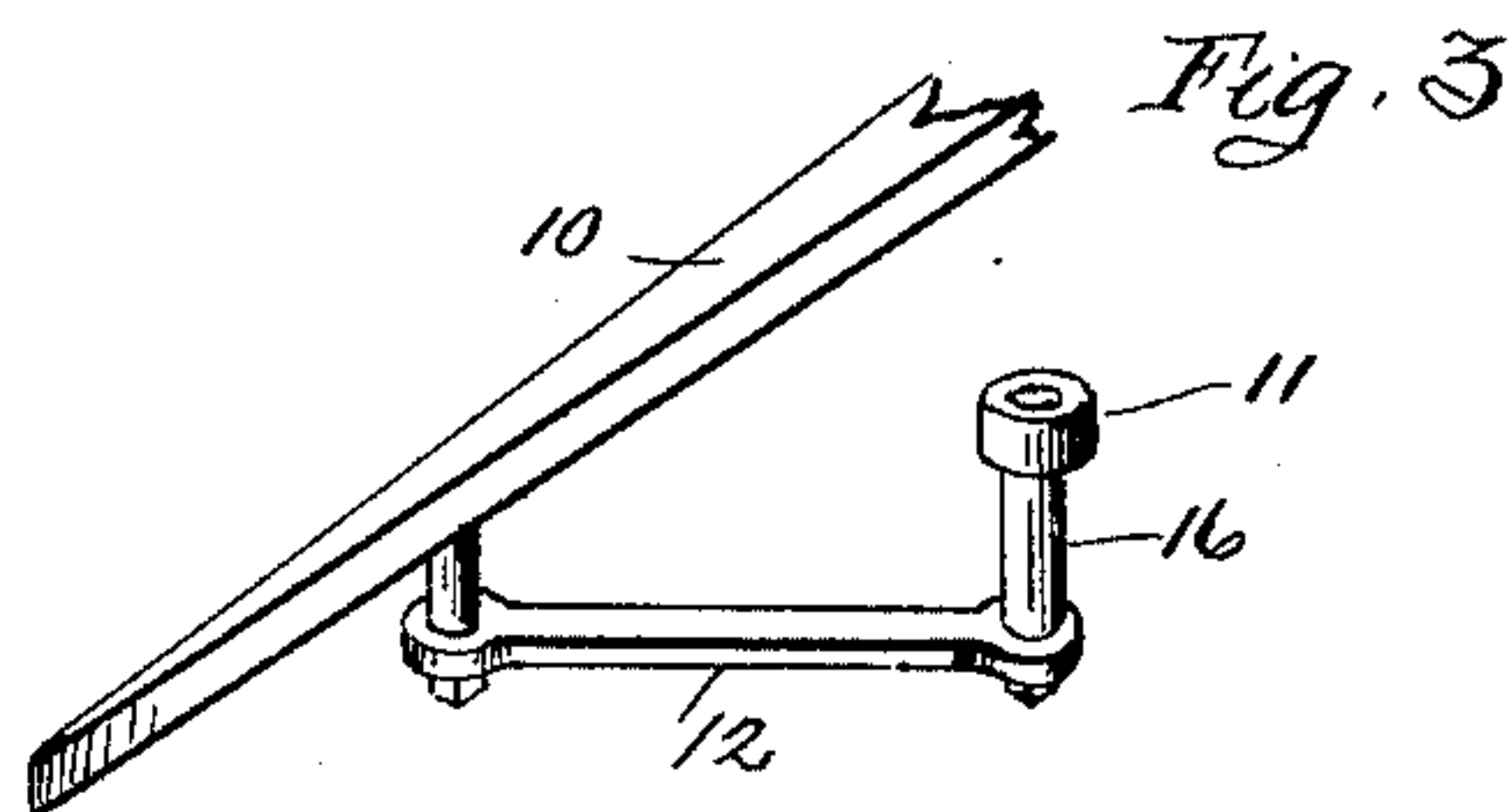
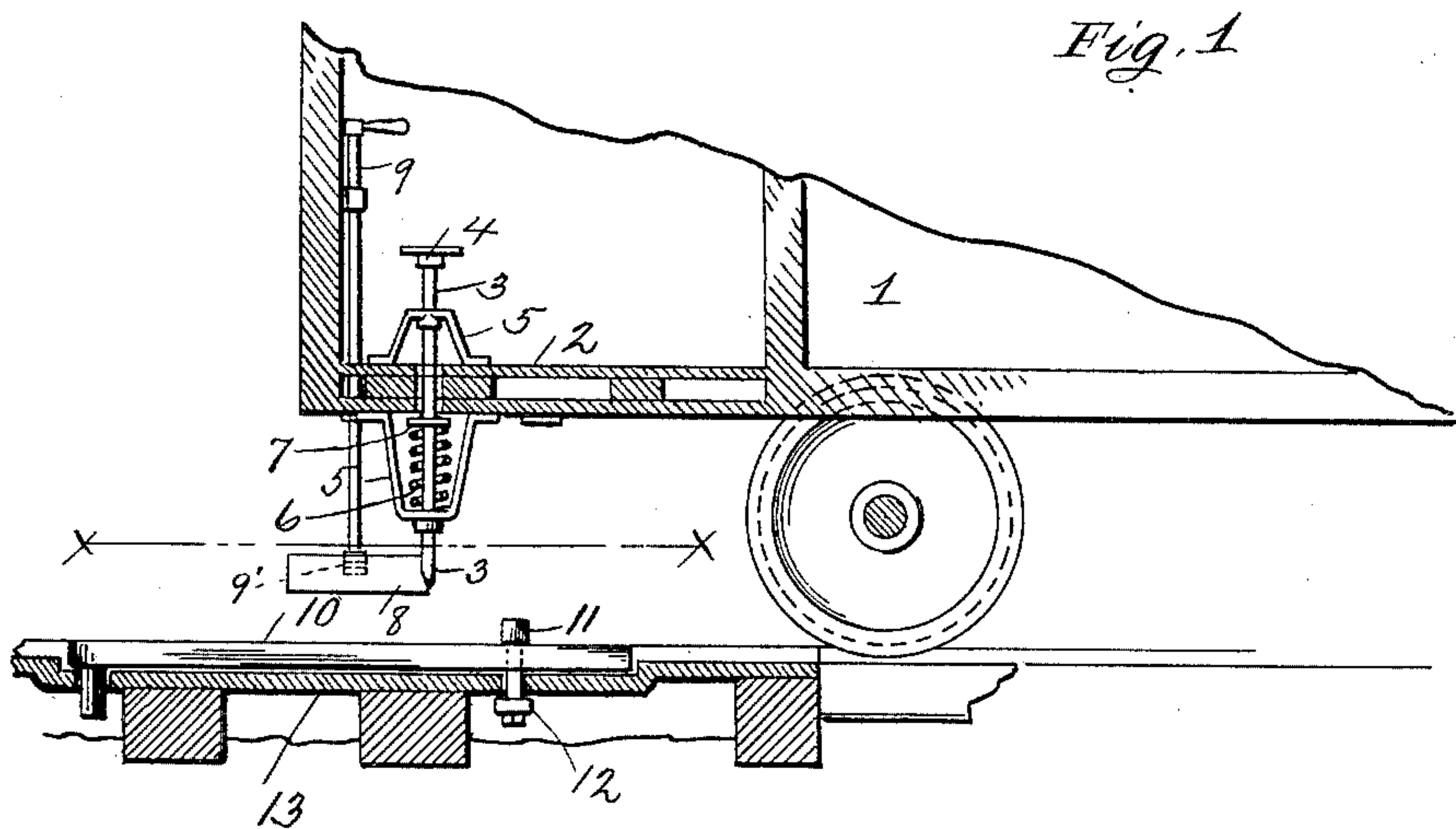
Patented July 30, 1901.

J. S. LOVE.

DEVICE FOR OPERATING RAILWAY SWITCH BARS.

(Application filed Jan. 27, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN S. LOVE, OF EDGEWOOD, PENNSYLVANIA.

DEVICE FOR OPERATING RAILWAY SWITCH-BARS.

SPECIFICATION forming part of Letters Patent No. 679,682, dated July 30, 1901.

Application filed January 27, 1900. Serial No. 2,986. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. LOVE, a citizen of the United States of America, residing at Edgewood, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Operating Railway Switch - Bars; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved device for operating street-railway switch-bars from the platform of moving cars; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a side sectional elevation of a portion of a street-railway car, showing my improved device attached in position upon the platform of the same, the said device being constructed and arranged in accordance with my invention. Fig. 2 is a sectional plan view taken on the line X X of Fig. 1. Fig. 3 is a perspective view of a portion of the switch-bar, showing the link and roller connected thereto. Fig. 4 is an enlarged detailed sectional view of the roller, showing the manner in which the same is connected to the link attached to the switch-bar.

To construct a device in accordance with my invention, and thereby provide a means for operating the switch-bar 10 of a street-railway track, I arrange upon the platform 2 of the car 1 and in suitable brackets or bearings 5 a bar 3, which stands in a vertical position, the one portion above the platform 2 and the other beneath the same. Connected to the top of this bar 3 is a plate or tread 4 and to the base of the said bar a forwardly-projecting plate 8, arranged to be set at an angle with the line of the rails and supported and held at the desired angle by means of a hand-lever 9, connected to the said plate 8 by a suitable knuckle-joint 9'. This plate 8 and its connected lever 9 is free to move vertically a short distance and the two parts held in an elevated position by means of a spiral spring 6 bearing against the lower bracket 5 and against a collar 7, formed on the bar 3.

The switch-bar 10 is pivoted in the usual manner to the base-plate 13 and the said bar connected beneath the base-plate through a slot 14 to a link 12, arranged at or near a right

angle with the track. Attached to the other end of the link 12 by means of a bolt 17 and nut 18 is a roller 11, separated from the said link 12 by a sleeve 16, which projects through a slot 15, formed in the base-plate 13, in a manner that will bring the said roller slightly above the level of the track. In practice these rollers 11 for operating the various switches along the line of track are all located at exactly the same distance from one of the rails and are all in direct line with the bar 3. The roller 11 being in direct line with the front portion of the plate 8 and by the forward movement of the car 1, the roller will engage with the side of the plate when the motor-man depresses the tread 4 by the pressure of his foot. The plate 8 moving forward will push the roller 11 to one side and close the switch, as will be seen by reference to Fig. 2 of the drawings. When the pressure is removed from the tread 4, the parts are recovered and brought back to the position shown at Fig. 1 of the drawings by the action of the spring 6. One of these devices above described is arranged at each end of the car and the switch-bar thrown in either direction by operating the hand-lever 9 to set the plate 8 in the proper position.

Various slight modifications may be made in the details of construction without departing from the spirit of the invention.

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

The combination of a base-plate, a pivoted switch-tongue, a pin rigidly secured thereto, a link provided with an eye at each end, said pin pivotally engaging one of said eyes, a bolt with an outwardly-extended annular flange rigidly engaging the other eye, a sleeve mounted on said bolt and extending above the slot in the base-plate provided therefor, a roller with an inwardly-extending annular recess mounted on said sleeve and loosely engaging the said flange of the bolt, and a throwing mechanism attached to the car and adapted to be moved into engagement with the roller for moving the switch-tongue.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOHN S. LOVE.

Witnesses:

JOHN GROETZINGER,
C. G. SIMPSON.