

No. 690,438.

Patented Jan. 7, 1902.

W. C. JONES.

WIRE GRIP.

(Application filed Sept. 20, 1901.)

2 Sheets—Sheet 1.

(No Model.)

Fig. 1.

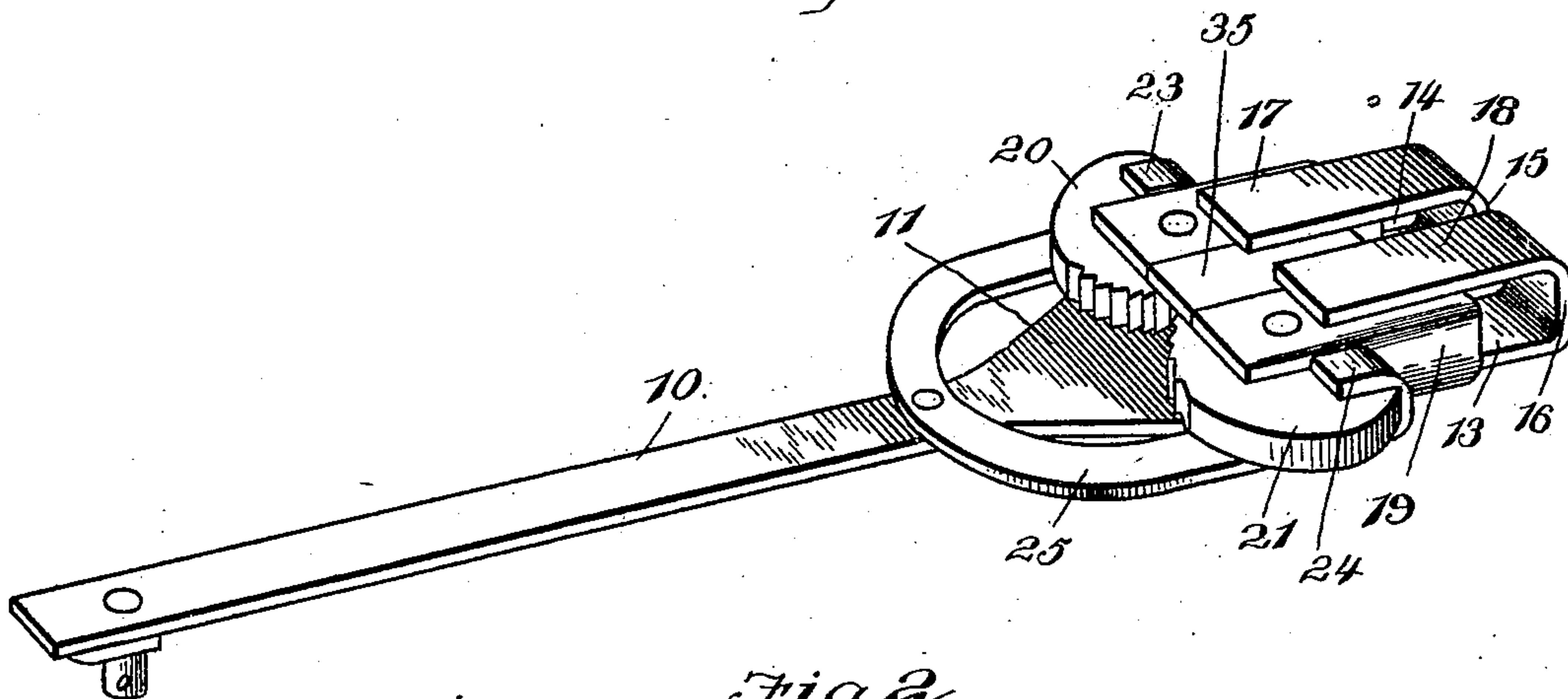
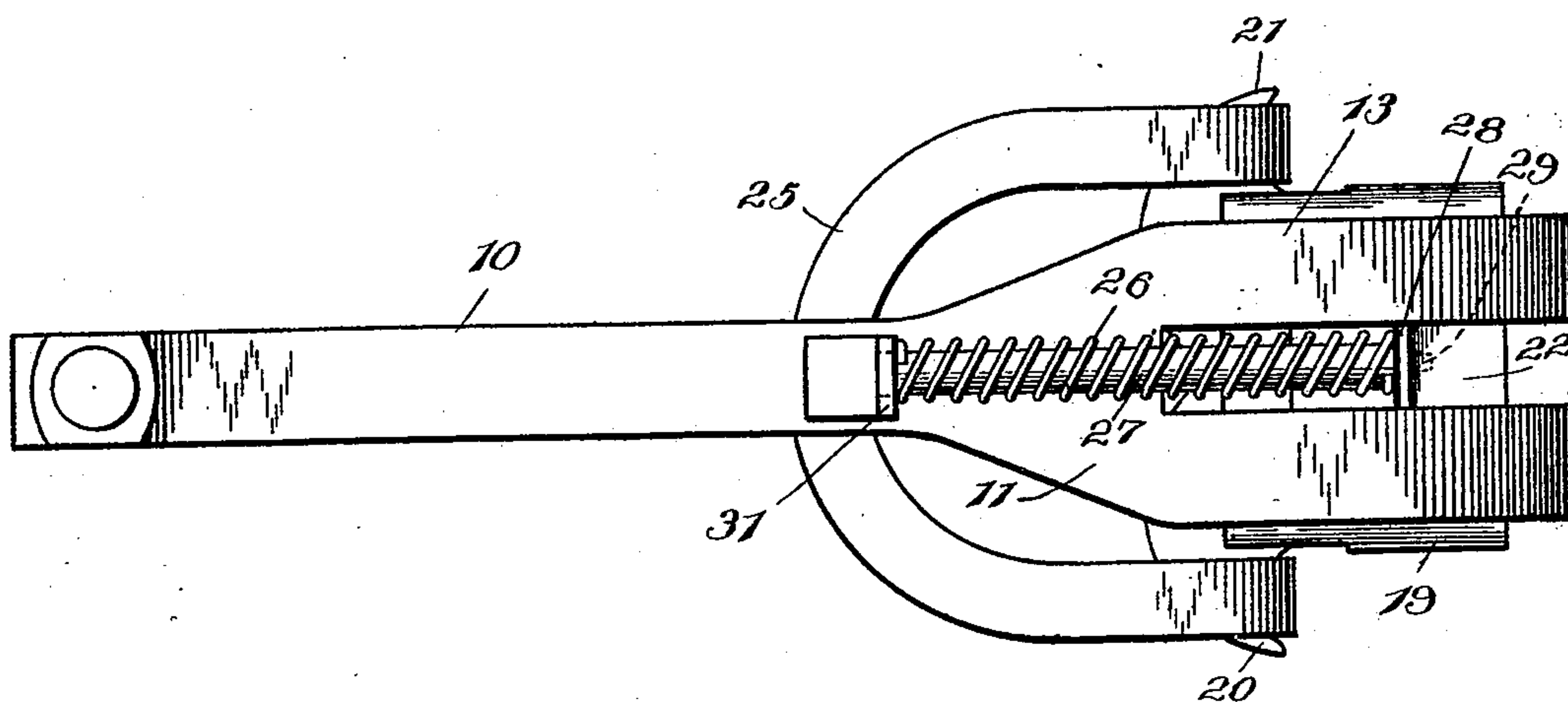


Fig. 2.



Witnesses

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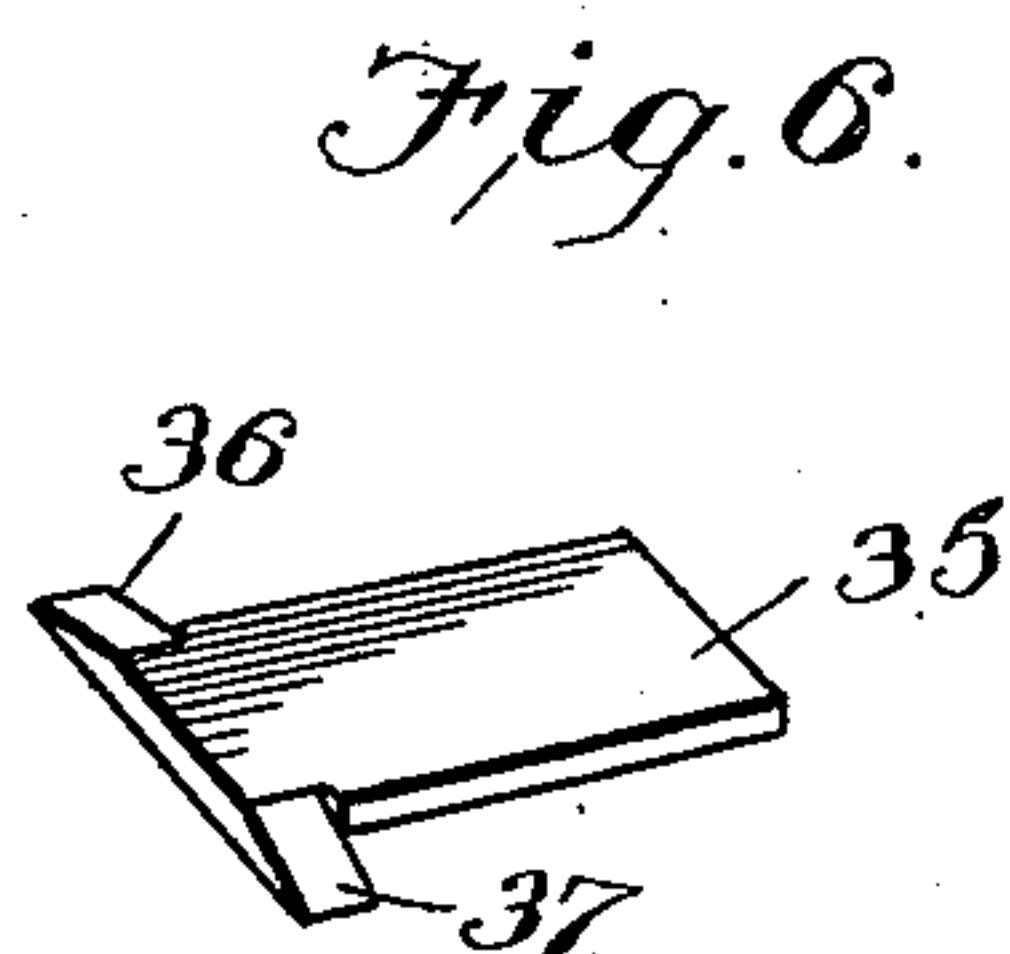
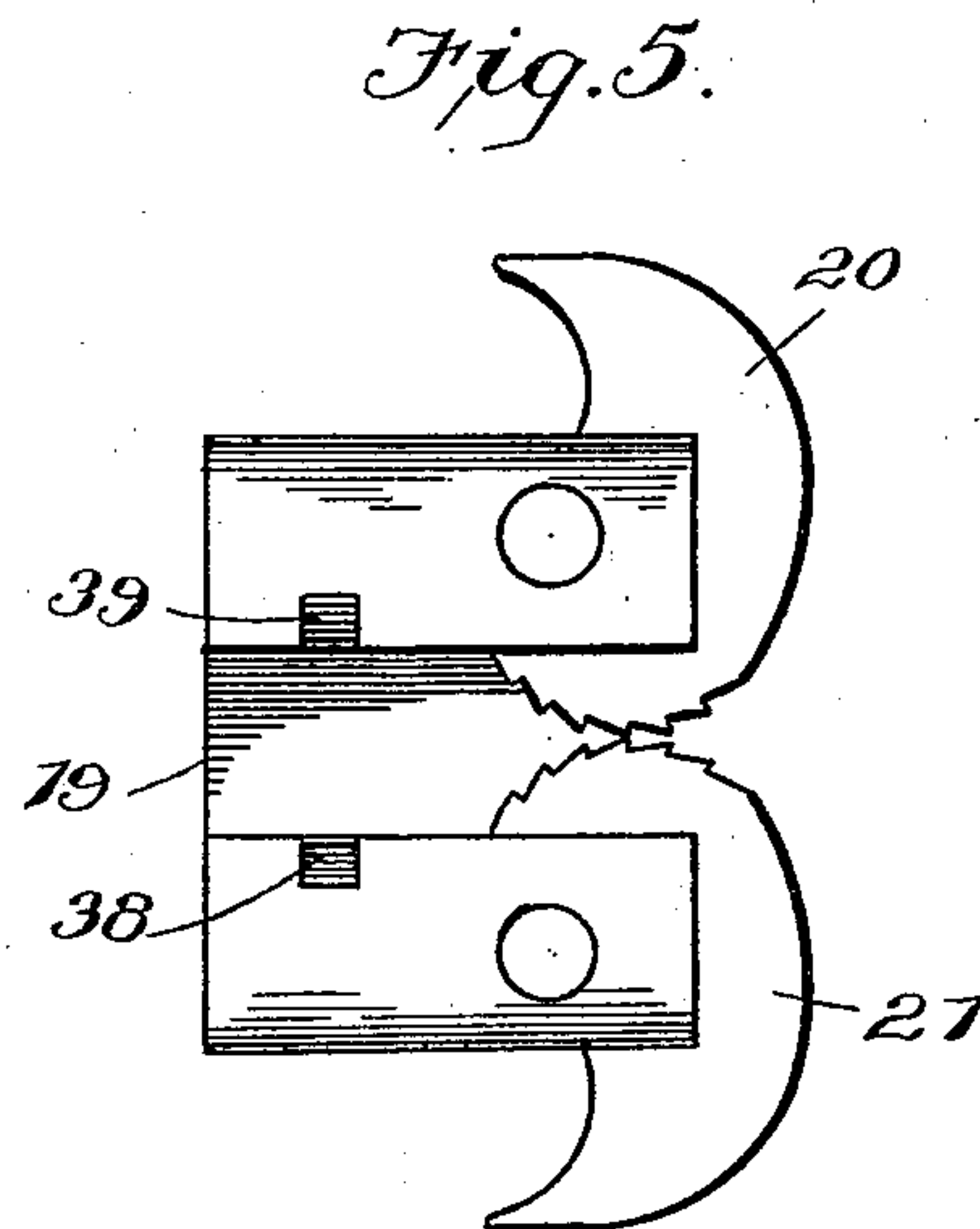
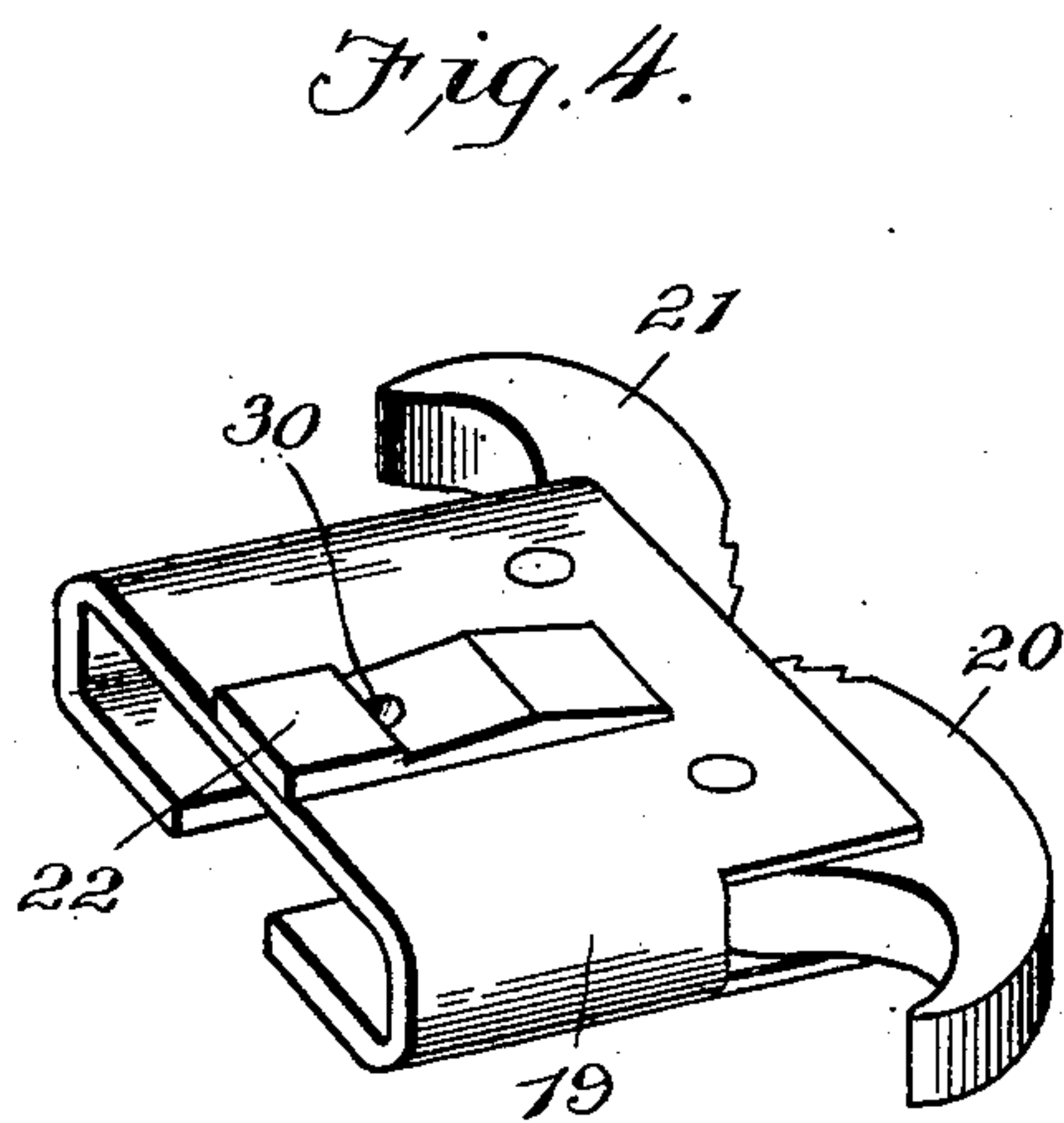
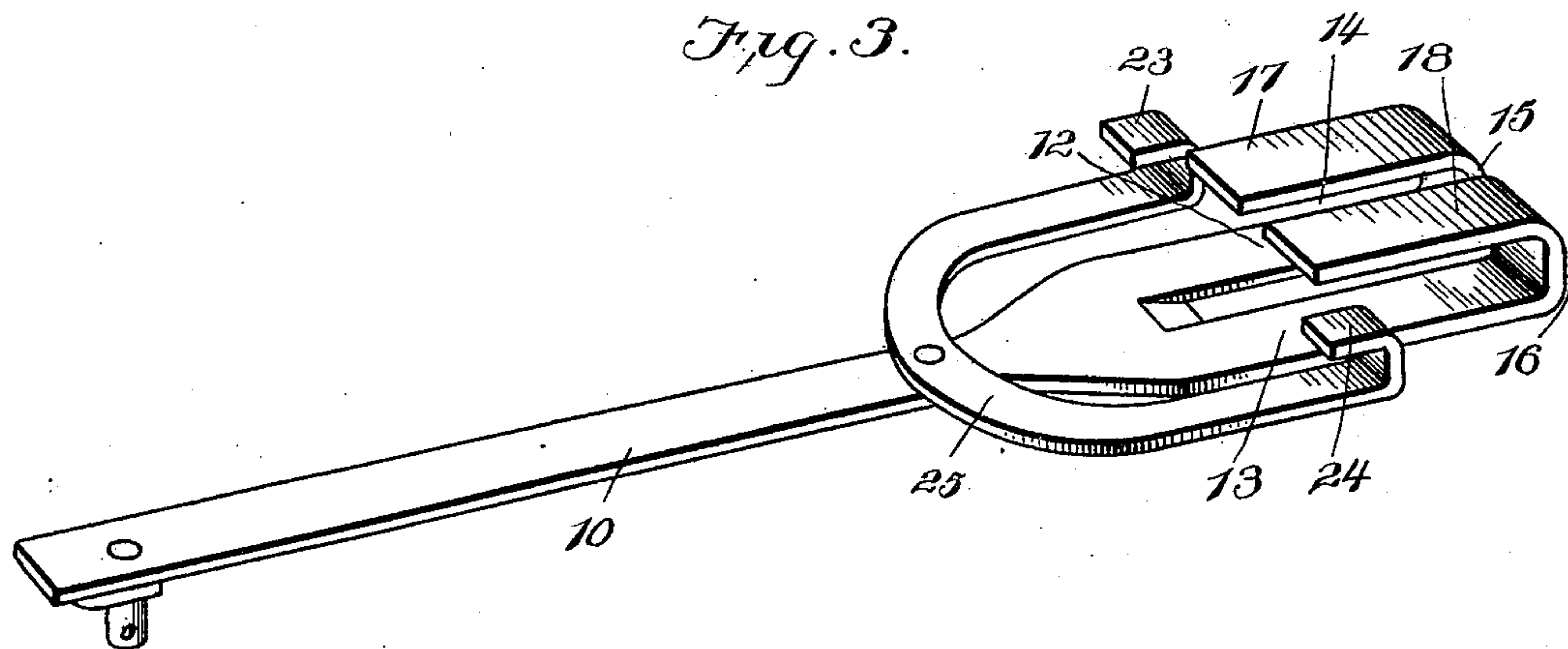
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILLIAM C. JONES, OF BLACKRUN, OHIO.

WIRE-GRIP.

SPECIFICATION forming part of Letters Patent No. 690,438, dated January 7, 1902.

Application filed September 20, 1901. Serial No. 75,741. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. JONES, a citizen of the United States, residing at Blackrun, in the county of Muskingum, State of Ohio, have invented certain new and useful Improvements in Wire-Grips; 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 wire-grips; and it has for its object to provide a device of this nature, such as used in connection with wire-stretchers, which will be simple and cheap of construction and which will be most durable and efficient.

A further object of the invention is to provide a grip in which the jaws will have a most positive gripping action and in which the parts may be easily and quickly disconnected for substitution of new parts or for repair, other objects and advantages of the invention being understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the wire-grip, the parts being shown in position to engage a wire. Fig. 2 is a bottom plan view of the device. Fig. 3 is a perspective view of the main frame of the grip. Fig. 4 is a bottom perspective view of the follower. Fig. 5 is a top plan view of the follower with the central plate removed. Fig. 6 is a detail perspective view of the strengthening-plate.

Referring now to the drawings, there is shown a grip comprising a main frame including a stem or body portion 10, at one end of which is formed a broadened head 11, which is slotted longitudinally from one end to form the spaced fingers 12 and 13 and the intervening interspace 14, the fingers having their end portions bent first upwardly at 15 and 16 and then rearwardly at 17 and 18 to lie parallel with the upper face of the head to form two guideways, as shown, and in these guideways is disposed the follower 19. The follower consists of a plate of metal the sides of which are bent first upwardly and then toward each other to lie above and parallel with the face of the plate, and in corresponding ends of the

upwardly-bent portions thereof are formed openings in which are received the arcuate gripping-jaws 20 and 21, having their gripping-faces serrated and which are mounted upon pivots engaged with the plate, so that as they are rotated in one direction the serrated portions will be brought together to exert a gripping action upon a wire disposed therebetween and when rotated in an opposite direction will liberate the wire.

In practice, as shown, the bent-over portions of the plate of the follower are disposed beneath the bent-over portions of the fingers of the main frame, so as to slide in the guideways formed thereby, and to hold the follower against lateral displacement a longitudinal rib 22 is formed upon the under side thereof and is engaged between the fingers.

It will be noted that the outer ends of the arcuate gripping-jaws are hooked, and these hooked portions are engaged over stops in the form of hooks 23 and 24 at the ends of an arcuate or yoke-shaped plate 25, which is riveted or otherwise attached to the stem of the main frame, the ends thereof having the hooks extending parallel to the line of the tips of the fingers 12 and 13. The stops are so located and the dimensions of the parts are such that when the follower is moved to its limit in the direction of the stem of the frame and the jaws are engaged with the stops the gripping portions of the jaws will be separated to permit of passage of a wire therebetween, and if the follower be then moved in the opposite direction, the pivots of the jaws being carried rearwardly, the jaws will be moved by the stops pivotally to bring the gripping portions thereof together.

To insure engagement of the jaws with the wire, the follower is held normally and yieldably in its last-named or rearward position by means of a helical spring 26, which is disposed upon a rod 27, having a head 28, provided with a tooth 29, removably engaged in the recess 30 in the rib 22 of the follower, the other end of the rod being slidably engaged with a perforation in a lug 31 upon the under side of the stem of the main frame. The spring by resting with one end against the lug 31 and the other end against the head of the rod holds the follower yieldably retracted, as stated.

When a wire is to be engaged with the grip, it is passed between the fingers and thence between the jaws, and to prevent outward displacement of the wire from the jaws a combined keeper and strengthening plate 35 is provided, this plate having laterally-extending ears 36 and 37, which are removably engaged in recesses 38 and 39 in the outer faces of the bent-over portions of the plate of the follower, the keeper-plate lying between the edges of the bent-over portions and flush with the outer faces thereof.

The outer end of the stem of the main frame is adapted for attachment to a support for holding it in operative position or may be connected with suitable means for moving it for use as a wire-stretcher.

In practice modifications of the specific construction shown may be made and any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A wire-grip comprising a frame having guideways, a follower mounted in the guideways and having pivoted jaws, fixed stops in the paths of movement of the jaws, for engagement thereby beyond their pivots, and means for moving the follower with the jaws into engagement with and against the stops to move the jaws into engaging positions.

2. A grip comprising a frame having guideways, a follower mounted in the guideways and having pivoted jaws, fixed stops disposed in the paths of movement of the jaws for engagement by the jaws beyond their pivots to move the jaws into engaging positions, and means for moving and holding the follower yieldably at one limit of its movement, to move and hold the jaws yieldably in engaging positions.

3. A grip comprising a frame including a

plate having one end bifurcated to form fingers, said fingers being bent to lie above the plate and form spaced guideways, a follower engaged slidably with the bent-over portions of the fingers and having a rib disposed between the fingers, jaws pivoted in the follower, a helical spring disposed between the rib of the follower and the frame to hold the follower yieldably at one limit of its movement, and stops in the path of movement of the jaws with the frame to move the jaws pivotally.

4. A grip comprising a frame including a plate having one end bifurcated to form fingers, said fingers being bent to lie above the plate and form spaced guideways, a follower engaged slidably with the bent-over portions of the fingers and having a rib disposed between the fingers, said rib having an opening therein, a perforated lug upon the frame, a rod having a lug at one end engaged with the opening of the rib, the opposite end of the rod being slidably engaged with the perforation of the lug, a spring upon the rod having its ends disposed against the lugs of the frame and rod to hold the follower yieldably at one limit of its movement, jaws pivoted in the follower, and stops in the paths of movement of the jaws with the follower under the influence of the spring, to move the jaws into engaging positions.

5. A grip comprising a frame having a movable follower mounted thereon and provided with movable jaws, and fixed stops carried by the frame in the paths of movement of the jaws of the follower for engagement thereby to move the jaws into engaging positions.

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

WILLIAM C. JONES.

Witnesses:

BESSIE MONTGOMERY,
ED. W. JONES.