

No. 609,002.

Patented Aug. 16, 1898.

E. BERNINGHAUS.
BARBER'S CHAIR.

(Application filed Apr. 3, 1897.)

(No Model.)

3 Sheets—Sheet 1.

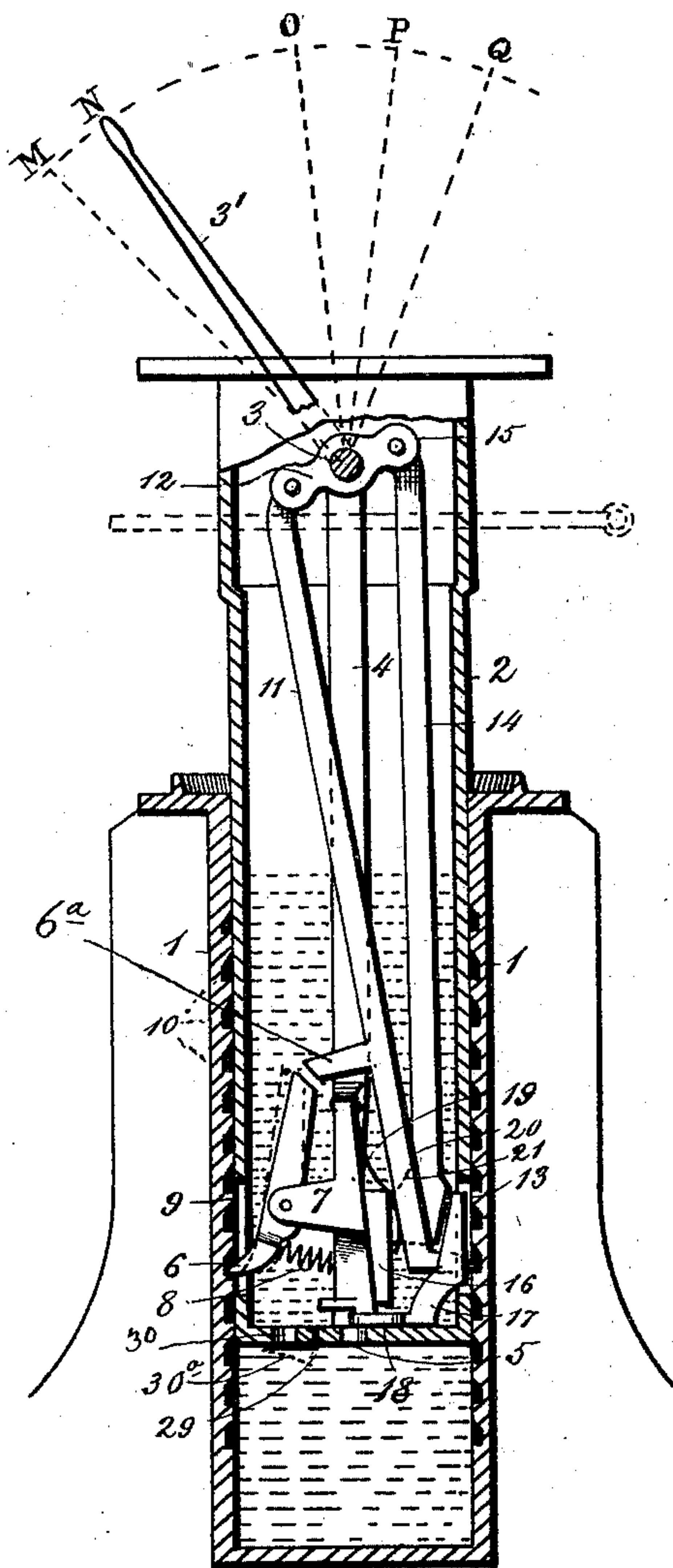
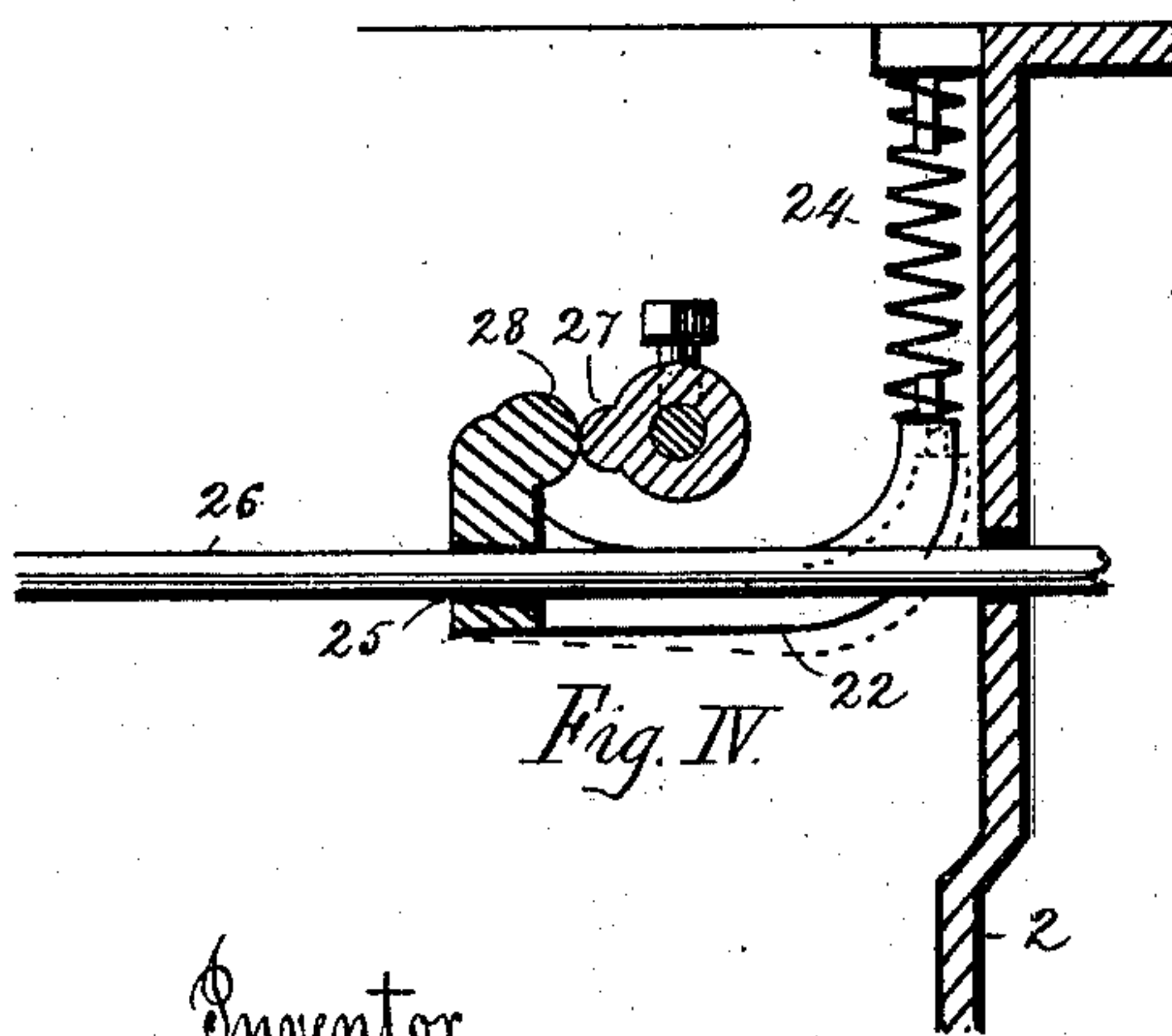
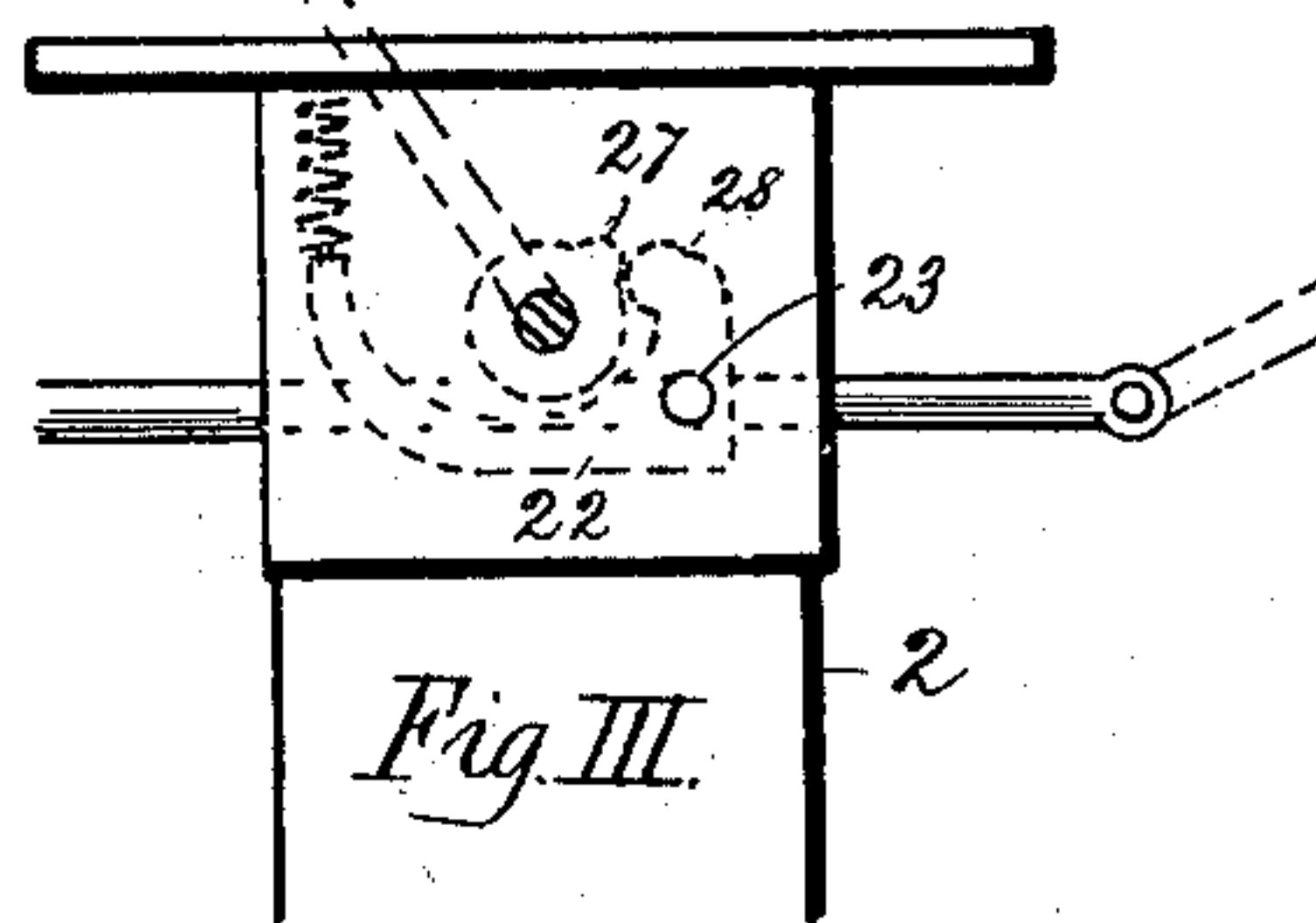
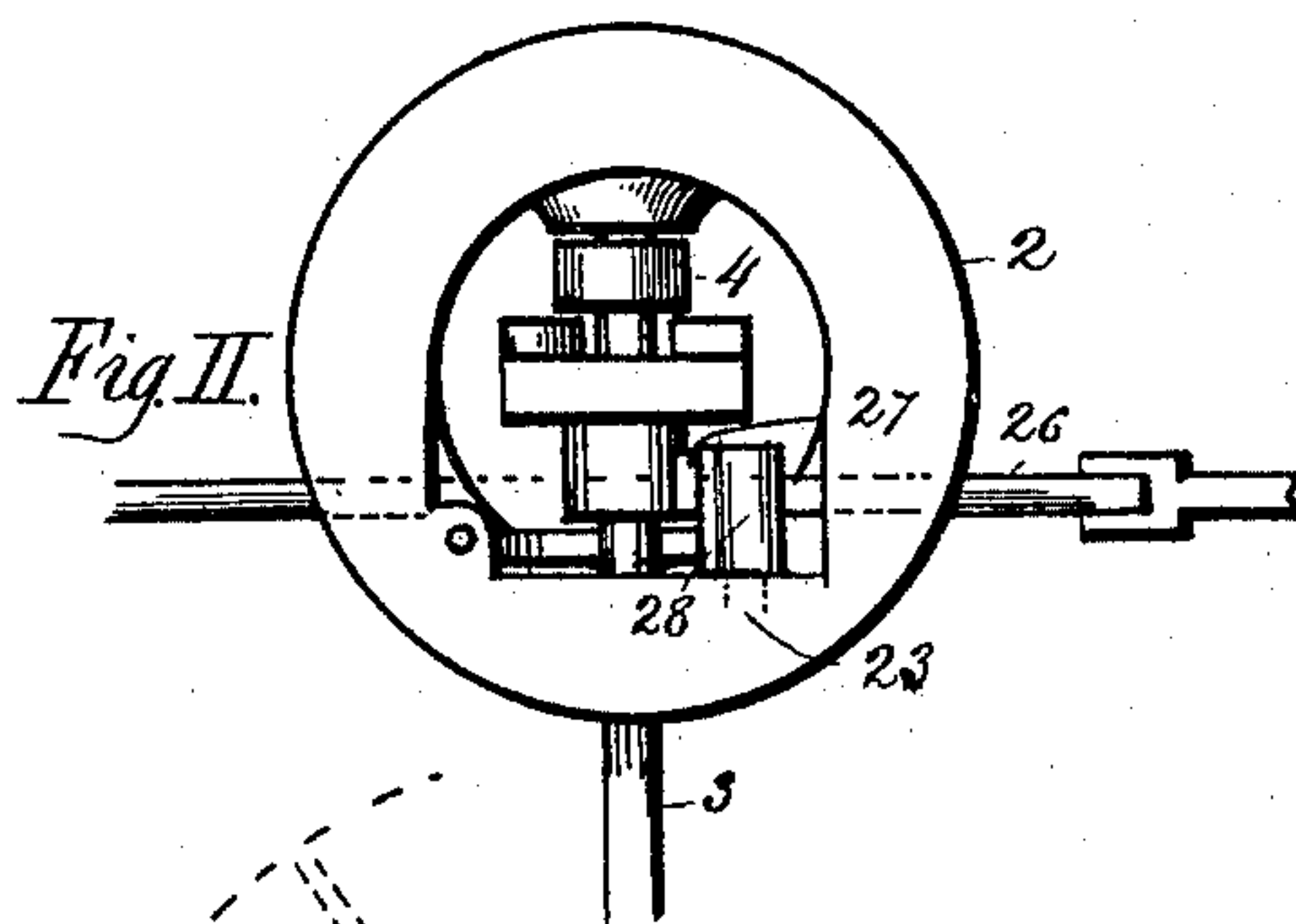


Fig. I.



Witnesses,

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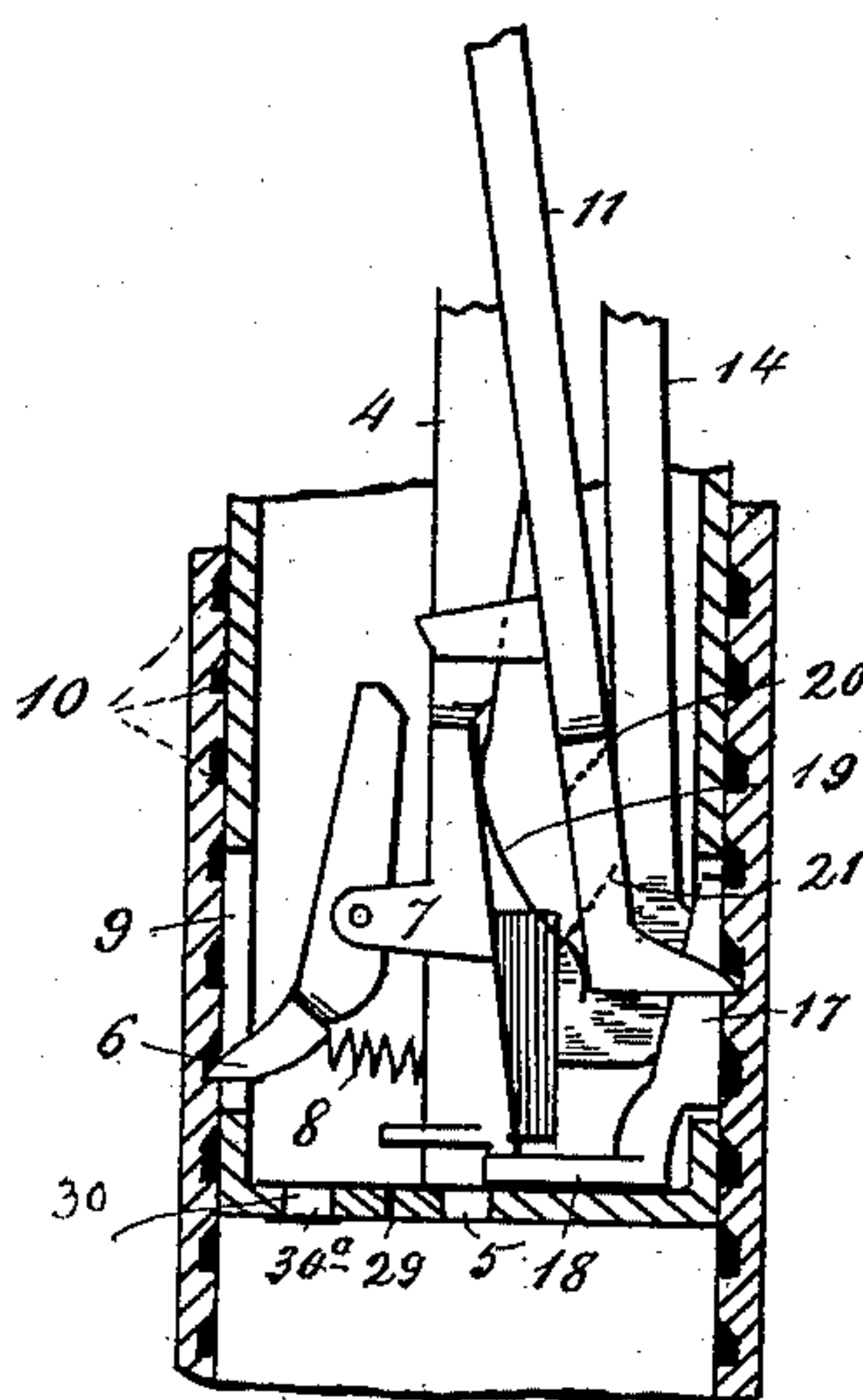


Fig. V.

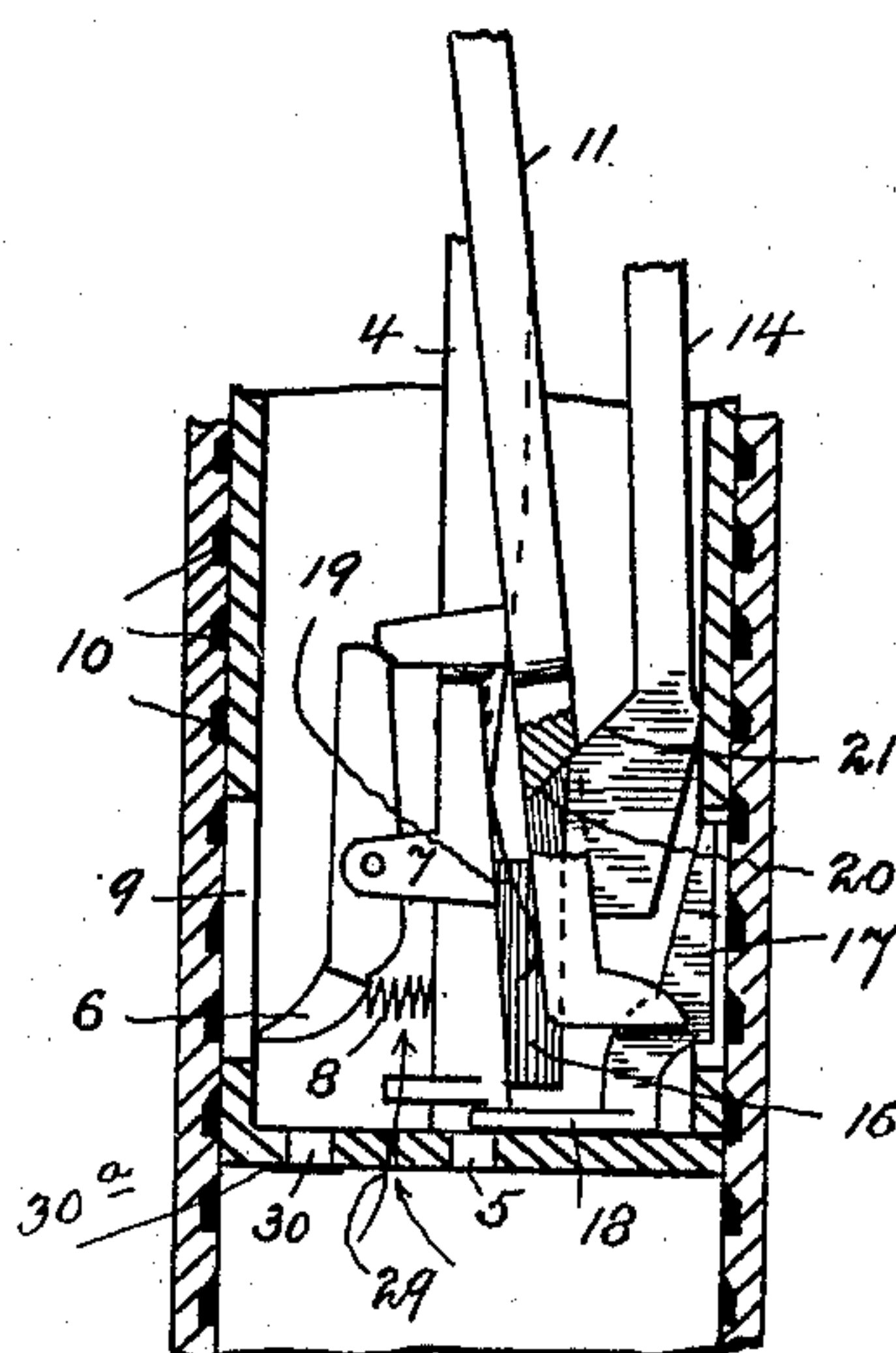


Fig. VI.

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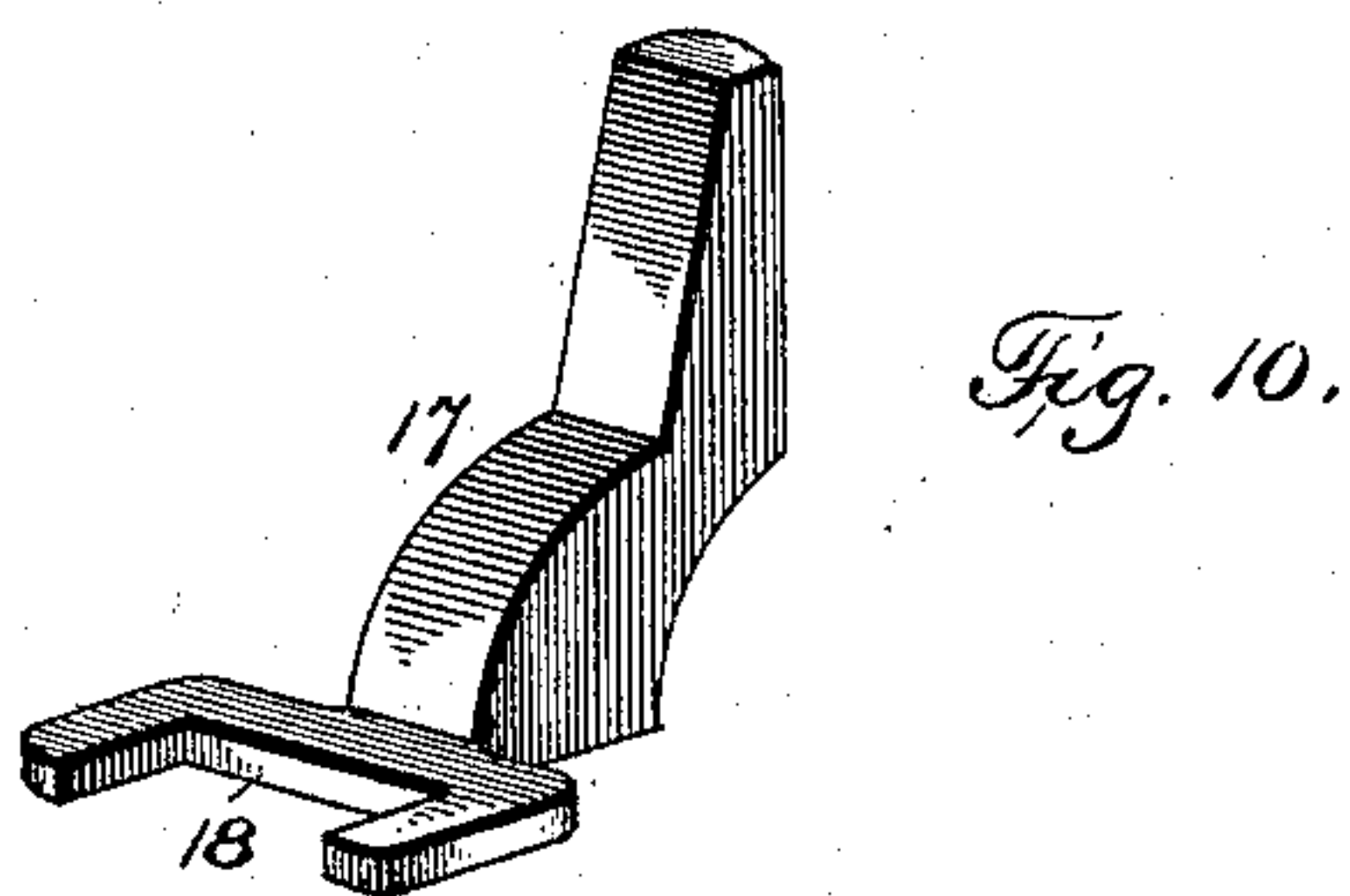
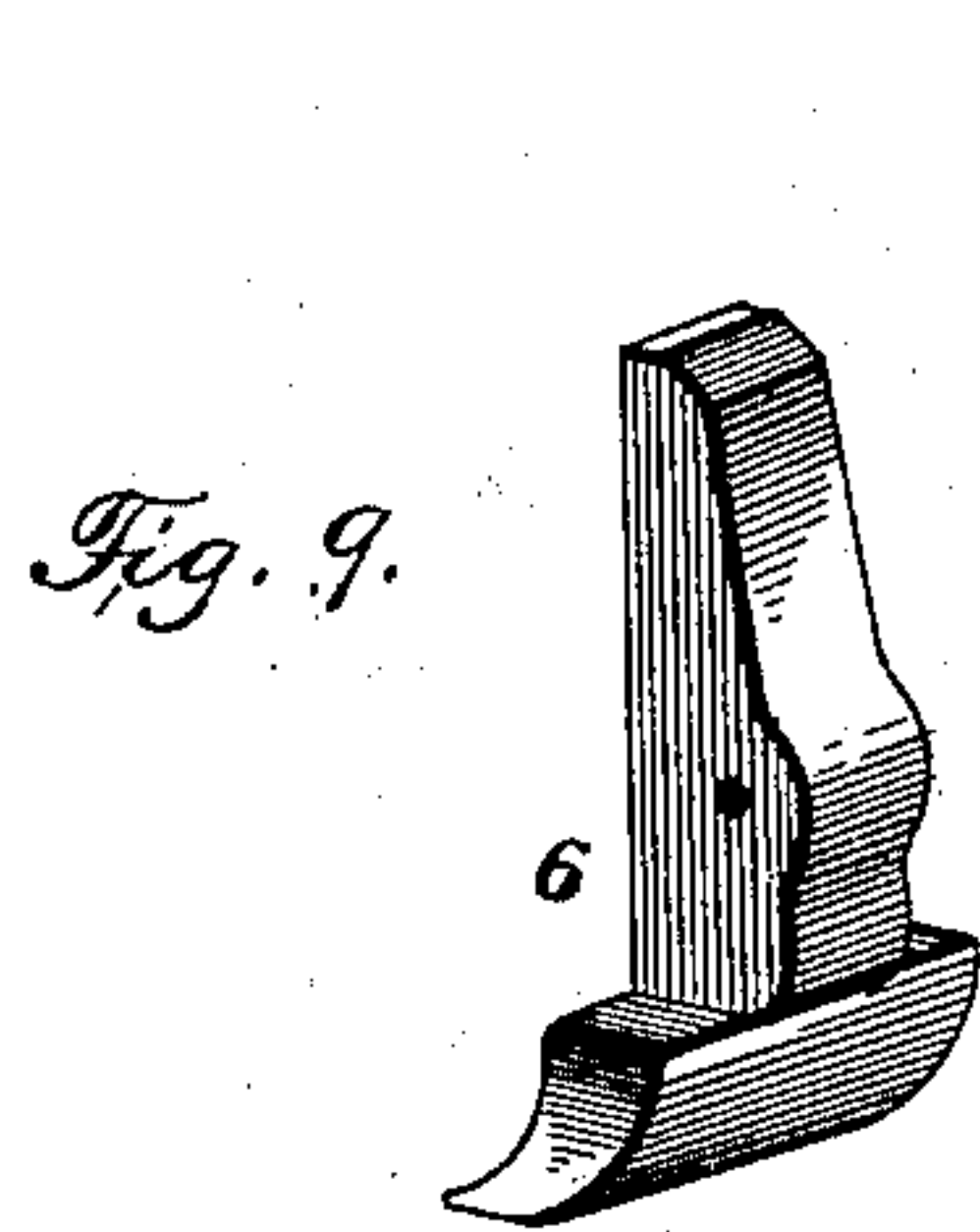
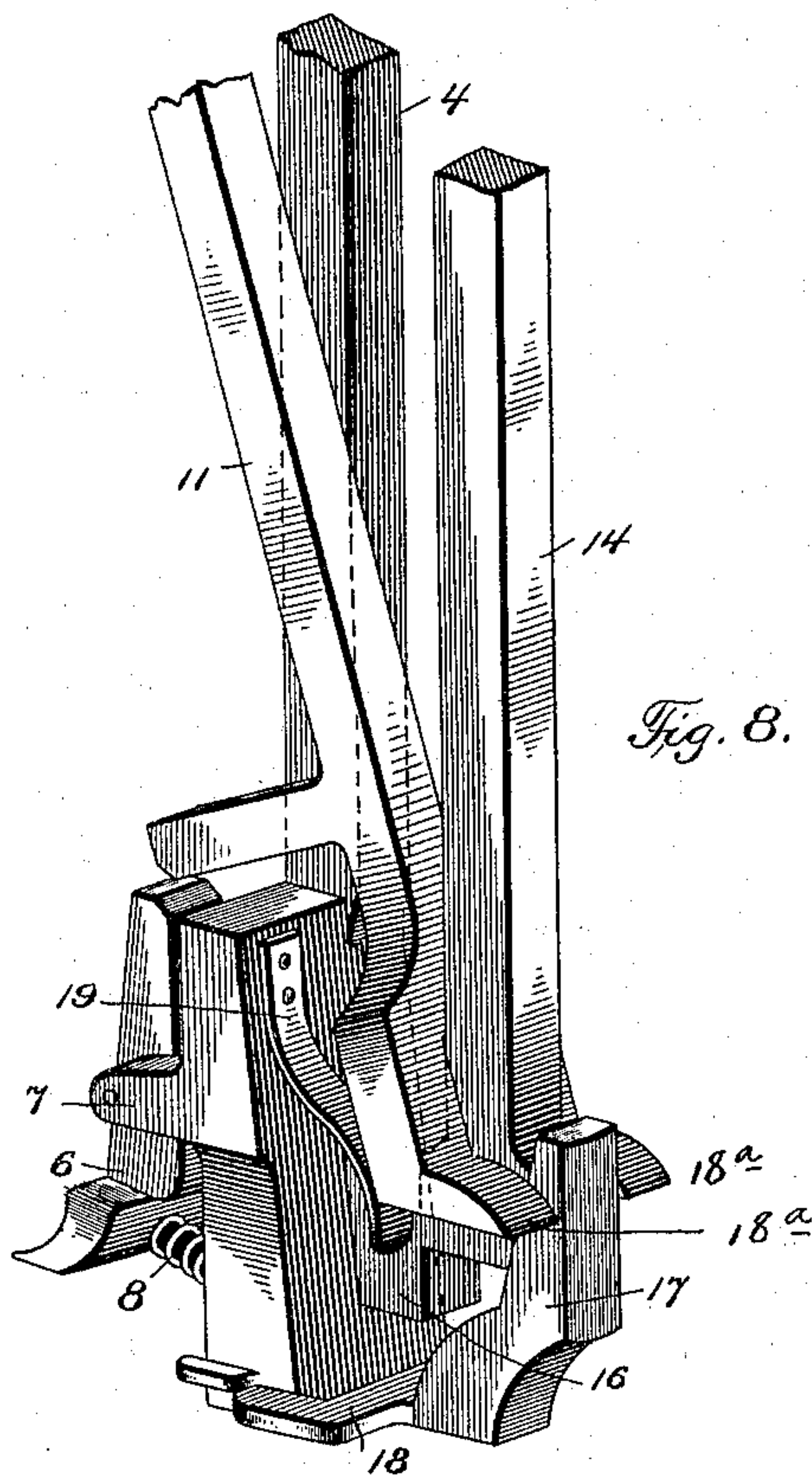
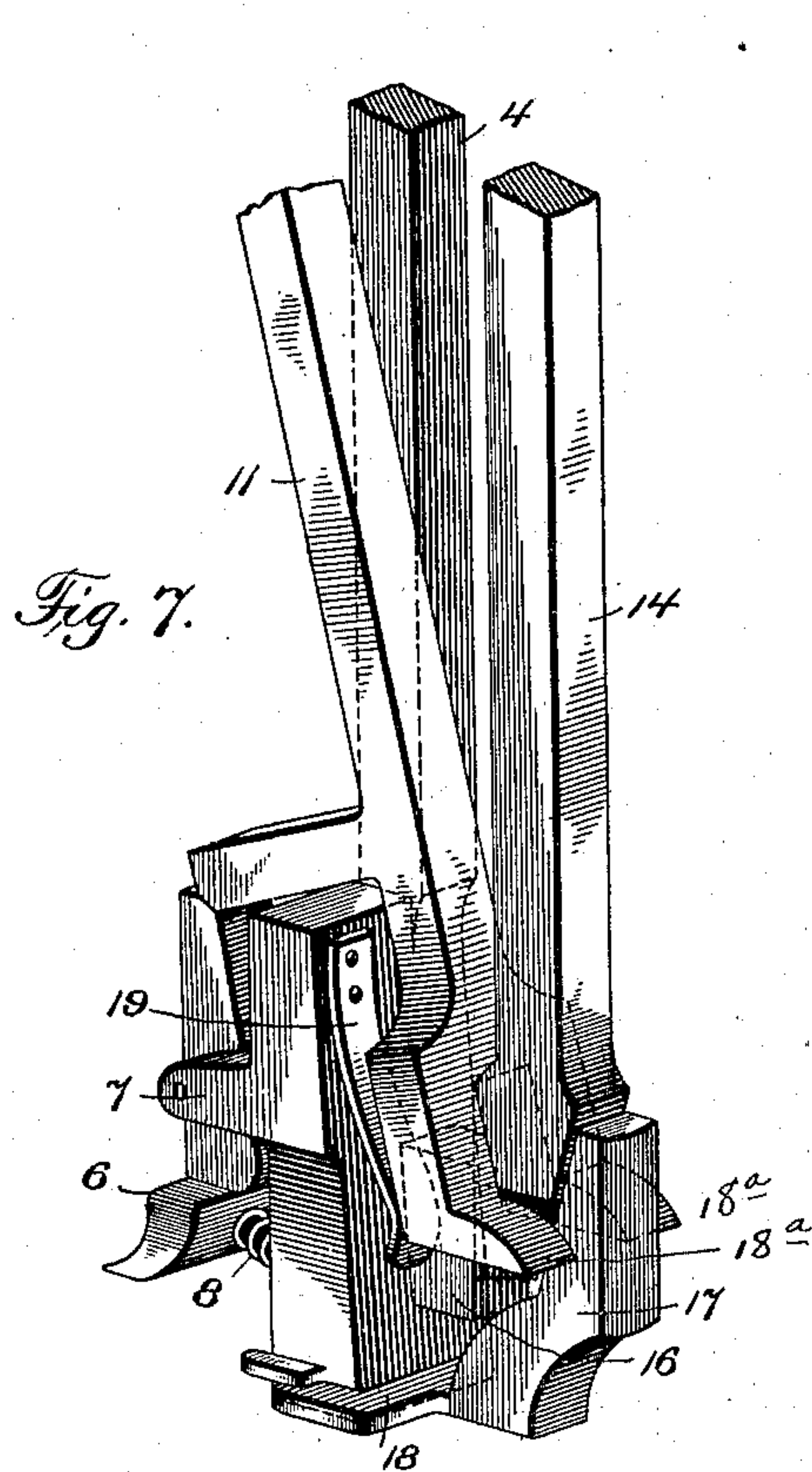
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3 Sheets—Sheet 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EUGENE BERNINGHAUS, OF CINCINNATI, OHIO.

BARBER'S CHAIR.

SPECIFICATION forming part of Letters Patent No. 609,002, dated August 16, 1898.

Application filed April 3, 1897. Serial No. 630,571. (No model.)

To all whom it may concern:

Be it known that I, EUGENE BERNINGHAUS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Barbers' Chairs, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a longitudinal sectional view of the lower part of a barber's chair constructed in accordance with my invention. Fig. 2 is a plan view of the same. Fig. 3 is an elevation of the upper part of the stationary cylinder, showing in dotted lines the devices for holding the apron. Fig. 4 is a detail sectional view of the same. Figs. 5 and 6 are detail sectional views of the lower part of the cylinder and riser, showing the devices for elevating and lowering the seat in different positions. Figs. 7 and 8 are detail perspective views of the mechanism for raising and lowering the seat. Fig. 8 is a detail perspective view of the dragging pawl. Fig. 9 is a similar view of the locking-shoe.

25 The object of my invention is to provide novel and improved means for raising and lowering a barber's chair in relation to its base and securing it at any desired position. 30 The device comprises an accurately-bored outer cylinder fixed vertically in the base of the chair and a cylindrical riser adapted to move within the outer cylinder and provided interiorly with the operative mechanism, 35 which will now be described.

Referring to the accompanying drawings, 1 indicates the outer cylinder; 2, the riser which moves therein, and 3 a rock-shaft journaled in the riser, which at a convenient point outside of the chair is bent upwardly at a right angle and forms an operating-handle 3'. A fixed stem or stock 4 has an aperture near its upper end and loosely engages the rock-shaft. The lower end, being reduced 45 and laterally offset to approximate a central position, is secured in an aperture 5 in the bottom of the riser. A dragging pawl 6 is pivoted between lugs 7 on the stock, its foot being laterally broadened and normally pressed 50 outward by a spring 8, and, projecting through an opening 9 in the shell of the riser, engages the annular recesses 10 in the wall of the

outer cylinder. A pawl-arm 11 has its upper end pivotally connected to the rocker-arm 12, rigidly secured to the rock-shaft, 55 while the lower portion is broadened and bifurcated, forming two toes 18^a, which project through the opening 13 in the riser and are also adapted to engage the aforementioned annular recesses. A locking-arm 14 has its 60 upper end pivoted in the end 15 of the rocker-arm 12, its lower end being adapted to slide against the vertically-faced projection 16, integral with the stock. The outer surface of the lower part of arm 14 is wedge-formed and 65 at a certain stage of depression engages and thrusts outwardly the locking-shoe 17, which, being thus forced against the inner wall of the outer cylinder, prevents a rotary movement of the chair. The toe 18 of the shoe is 70 bifurcated and slides on each side of the base of the stock 4. The pawl-arm is normally pressed outwardly by a spring 19.

Formed with the stem 4 is a projection 6^a, which strikes the dragging pawl when the 75 handle 3' is turned to the position marked M, throwing it out of engagement with the recess in the cylinder and allowing the riser to descend.

It will be observed that the bifurcation in 80 the pawl-arm is formed with an inclination 20 to correspond with a like inclination 21 on the locking-arm.

Referring to Figs. 2, 3, and 4, the numeral 22 designates an arm pivoted to a lug 23, secured to the upper part of the riser, the end of which arm is bent upwardly and connected with a coiled spring 24, also connected with the riser, the tendency of which is to press said arm downwardly, so that the walls of the 90 aperture 25, through which the apron-bar 26 passes, will bite or bind upon said bar and hold it securely in place, thus securing the apron and chair-back in a rigid position. Secured to the rock-shaft is a cam 27, which 95 engages with a projection 28 on the arm 22, so that by turning said shaft the arm 22 is operated to release the apron-bar, thereby allowing a free adjustment of the chair-back and apron. 100

In order to clearly show the various features of the operation and the relative movements involved, particular reference will be made in proper order to the dotted lines M, N, O,

P, and Q, Fig. 1. Assuming that the proper quantity of oil has been initially placed in the cylinders, the operation is as follows: First, if it be desired to elevate the chair the lever 3' is turned from O to N, causing one end of the rocker-arm 12 to press down arm 11, the toe at the lower end of which, engaging with one of the recesses in the cylinder, will lift the riser one step and allow the dragging pawl 9 to engage and hold the position thus gained. The lever is then reversed and moved forward to O, which draws the pawl-arm up to another step, and the back movement to N is repeated with the same results as before. As the riser ascends, the contained oil escapes through the orifice 30 (having an under flap-valve 30^a) into the bottom of the outer cylinder.

When the chair is raised to the desired height, the apron-bar may be released and the chair tilted backwardly by moving the lever from O to P, thus bringing the cam 27 to bear. The bottom of the riser is formed with an orifice 30, closed by a flap-valve 30^a, which allows the oil to escape from the latter as it ascends, and is also formed with a small orifice 29 to allow the oil to escape into the riser as it descends. If it be desired to prevent a rotary movement of the chair, the lever is moved from P to Q, which forces the shoe outwardly by the action of the wedge before mentioned. In order to lower the chair, the lever is thrown back to M. It will be understood that N being approximately the back limit of the movement for hoisting the chair, the movement from N back to M causes the bifurcated pawl-arm to descend into contact with the inclined surface 21 of the locking-arm, causing the said pawl-arm to be crowded inwardly against the pressure of the spring and to retire free from the annular recesses in the outer cylinder, simultaneously bringing the projection on the rear side of the pawl-arm into contact with the arm of the dragging pawl and disengaging the toe of the latter. The riser now rests solely on the body of oil beneath it, and the flap-valve naturally closing upwardly the oil is forced by the superimposed pressure to pass upwardly through the small orifice 29, and the riser descends at

a moderate rate of speed without regard to the weight of the load.

What I claim as new is—

1. In a barber's chair, the herein-described outer cylinder attached to the base of the chair and provided with a series of annular recesses; a hollow rotatable cylinder or riser adapted to move within the outer cylinder and having the chair-seat attached to its top; a transverse rock-shaft journaled near the upper end of the riser and the oscillatory hand-lever; a rock-arm secured to the said shaft having a depending pawl-arm and a locking-arm respectively attached to its extremities, the locking-arm, a locking-shoe adapted to be pressed by said locking-arm against the interior wall of the outer cylinder, the pawl-arm adapted to hoist the chair by successive steps; the dragging pawl the central stock to which said pawl is pivoted having its lower end secured to the bottom of the riser and its upper end to the rock-shaft; the said lifting pawl-arm having its lower engaging portion bifurcated and formed with an inclined surface adapted to engage a corresponding inclined face of the locking-arm at a certain position of the operating-lever, thereby causing the lifting-pawl to retire from the annular recesses, and releasing the dragging pawl, allowing the superimposed weight to be upheld by the oil in the outer cylinder, said oil being allowed to pass upwardly through an aperture as the chair descends, substantially as herein specified.

2. In a barber's chair, the combination with the cylinder and the riser, and means for elevating and lowering the latter, of the curved arm pivoted to the upper portion of the riser, the spring connected with said arm and riser, the projection on said arm, the rock-shaft, the cam secured thereto, and the apron-bar passing through an aperture in said curved arm, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 31st day of March, 1897, in the presence of witnesses.

EUGENE BERNINGHAUS.

Witnesses:

GEO. W. HARDACRE,
WM. B. VAN SANDT.