

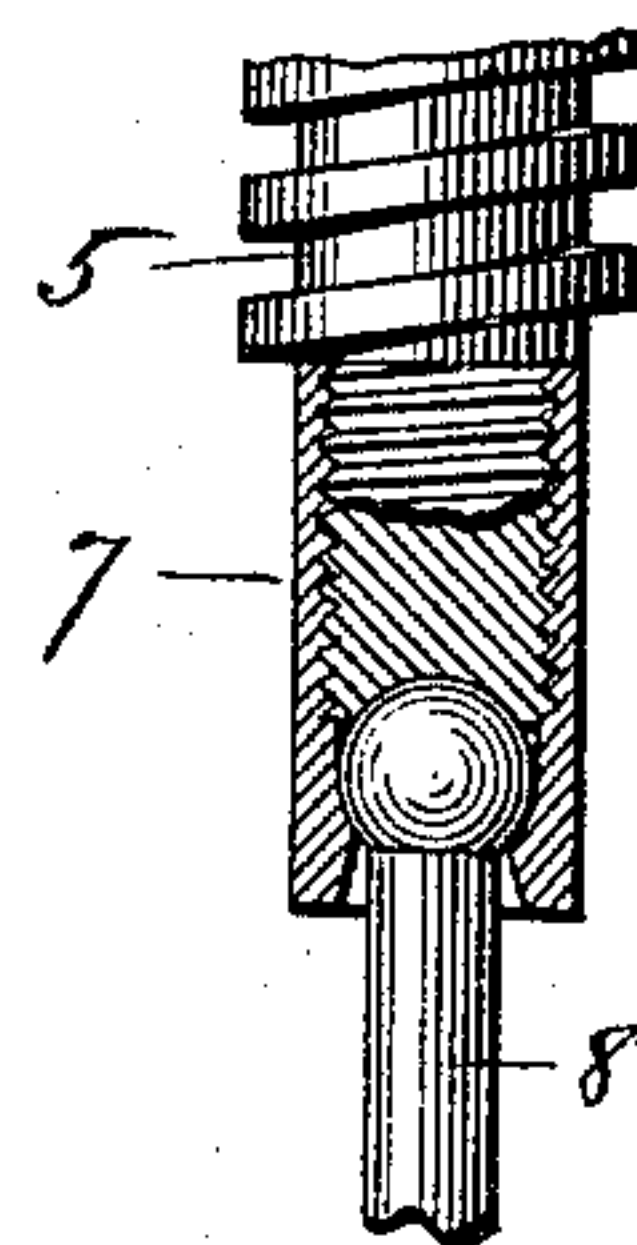
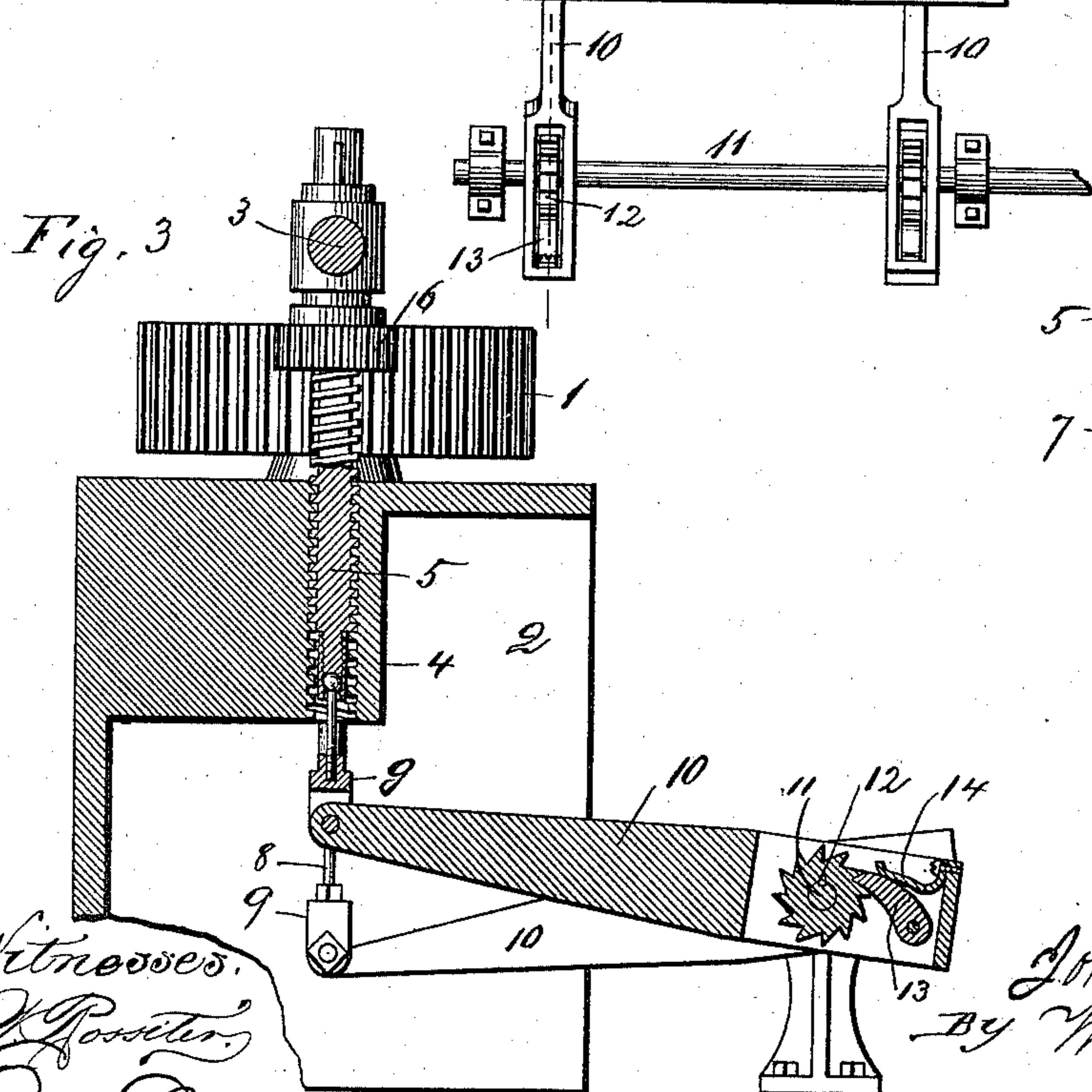
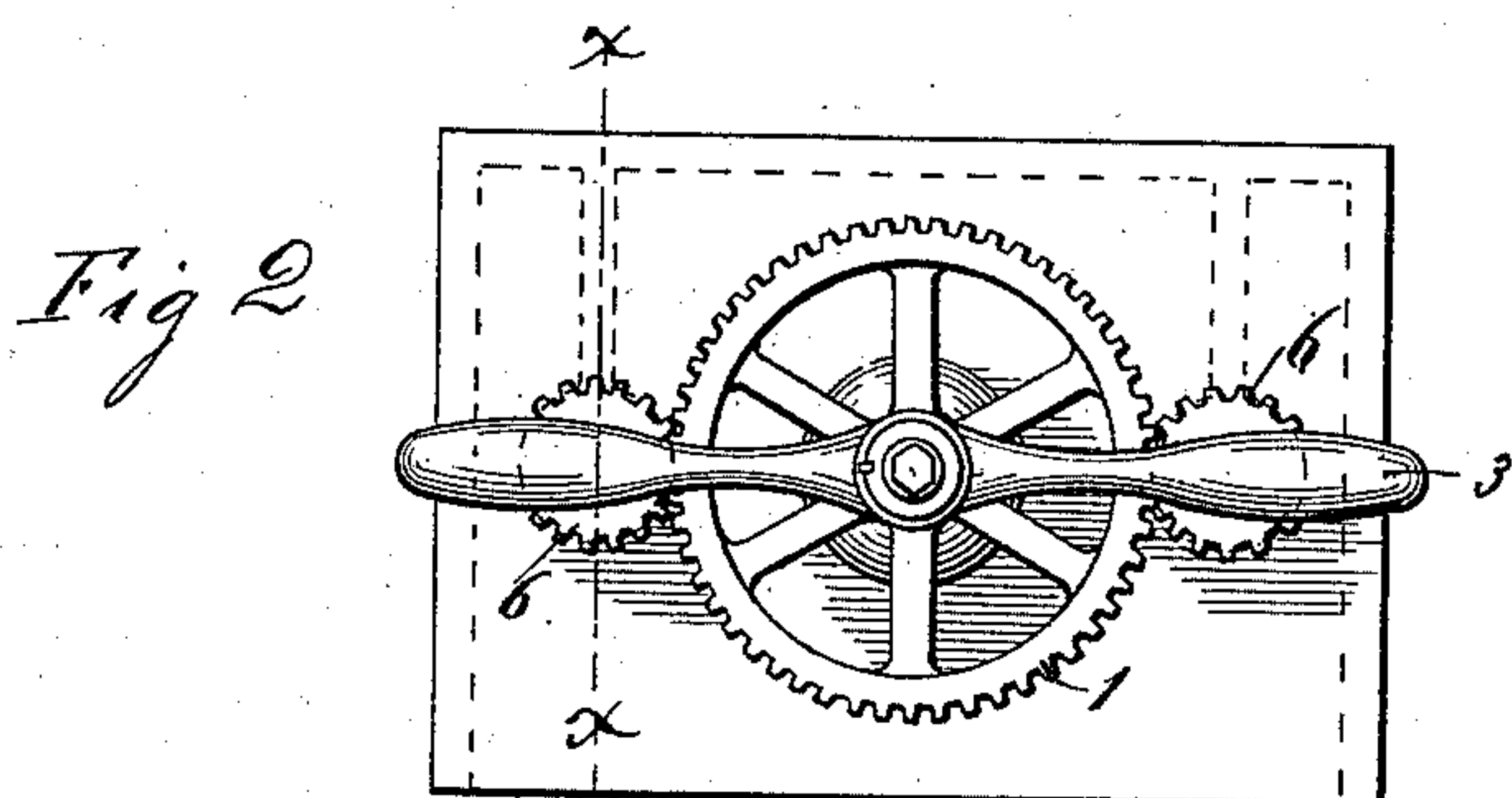
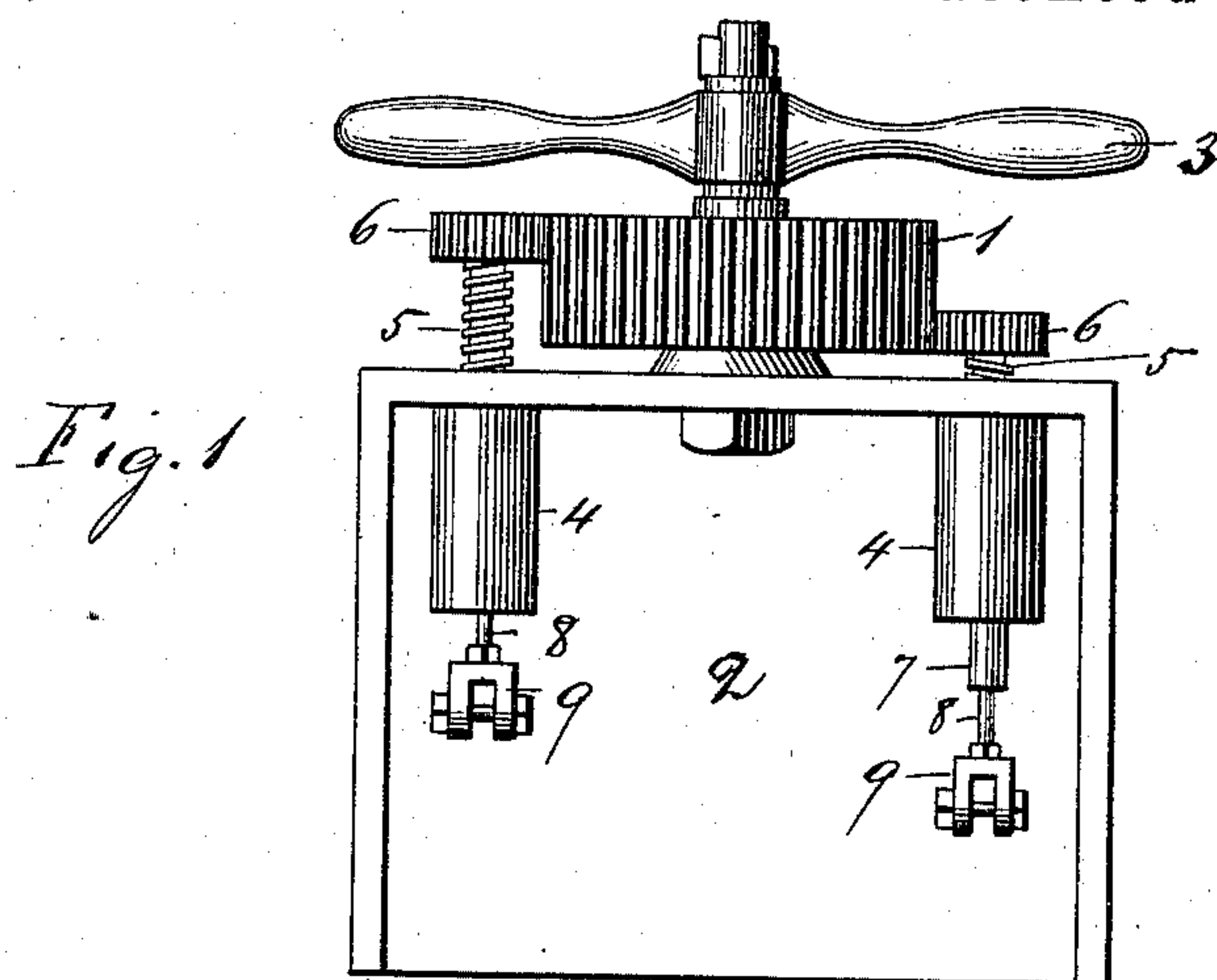
(No Model.)

2 Sheets—Sheet 1.

J. F. SCHOETTES.
MECHANICAL MOVEMENT.

No. 385,377.

Patented July 3, 1888.



Witnesses.
A. Posner.
Otto Lubken.

Inventor:
John F. Schoettes.
By *Wm. B. Lotz.*
Atty.

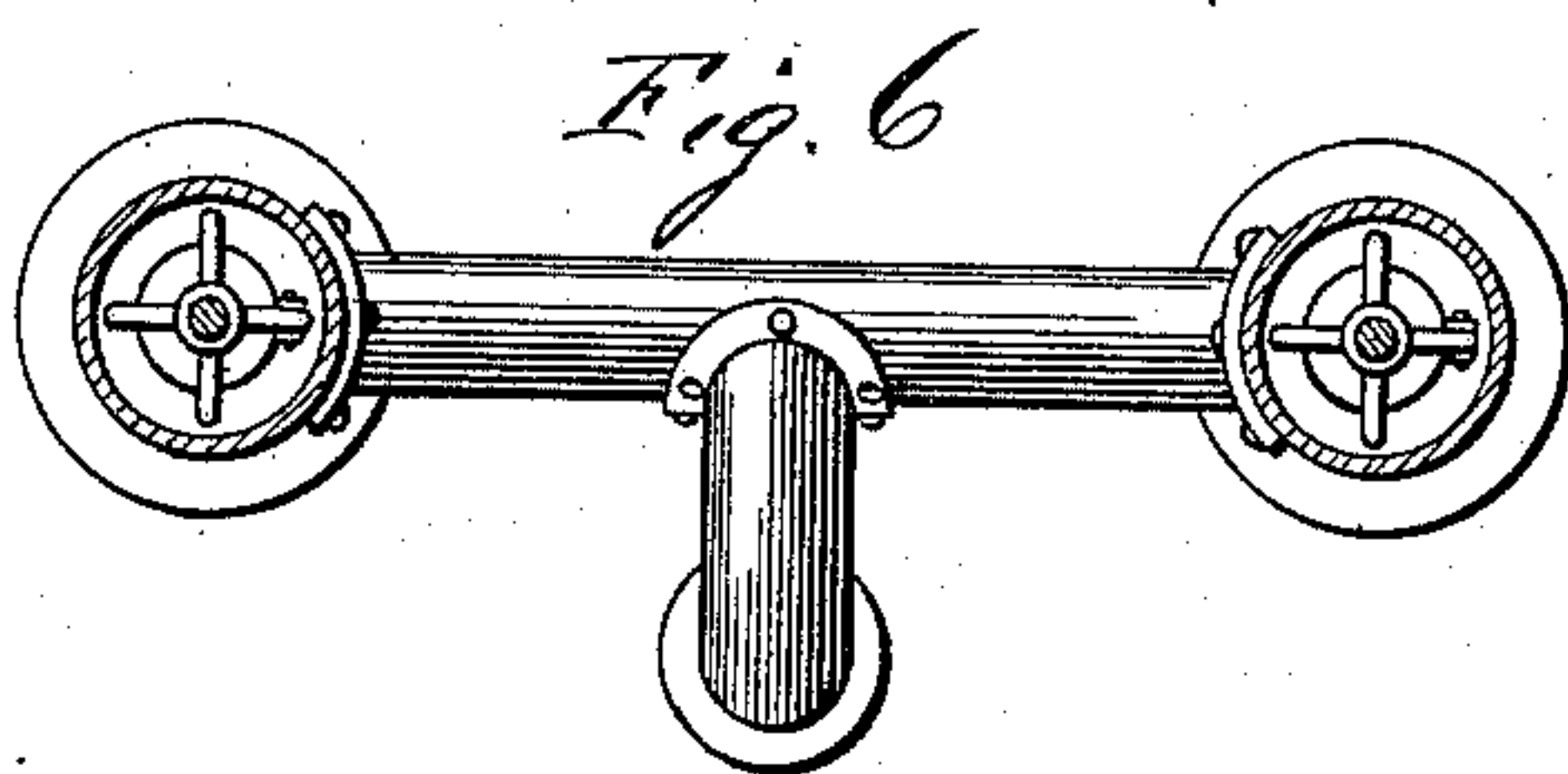
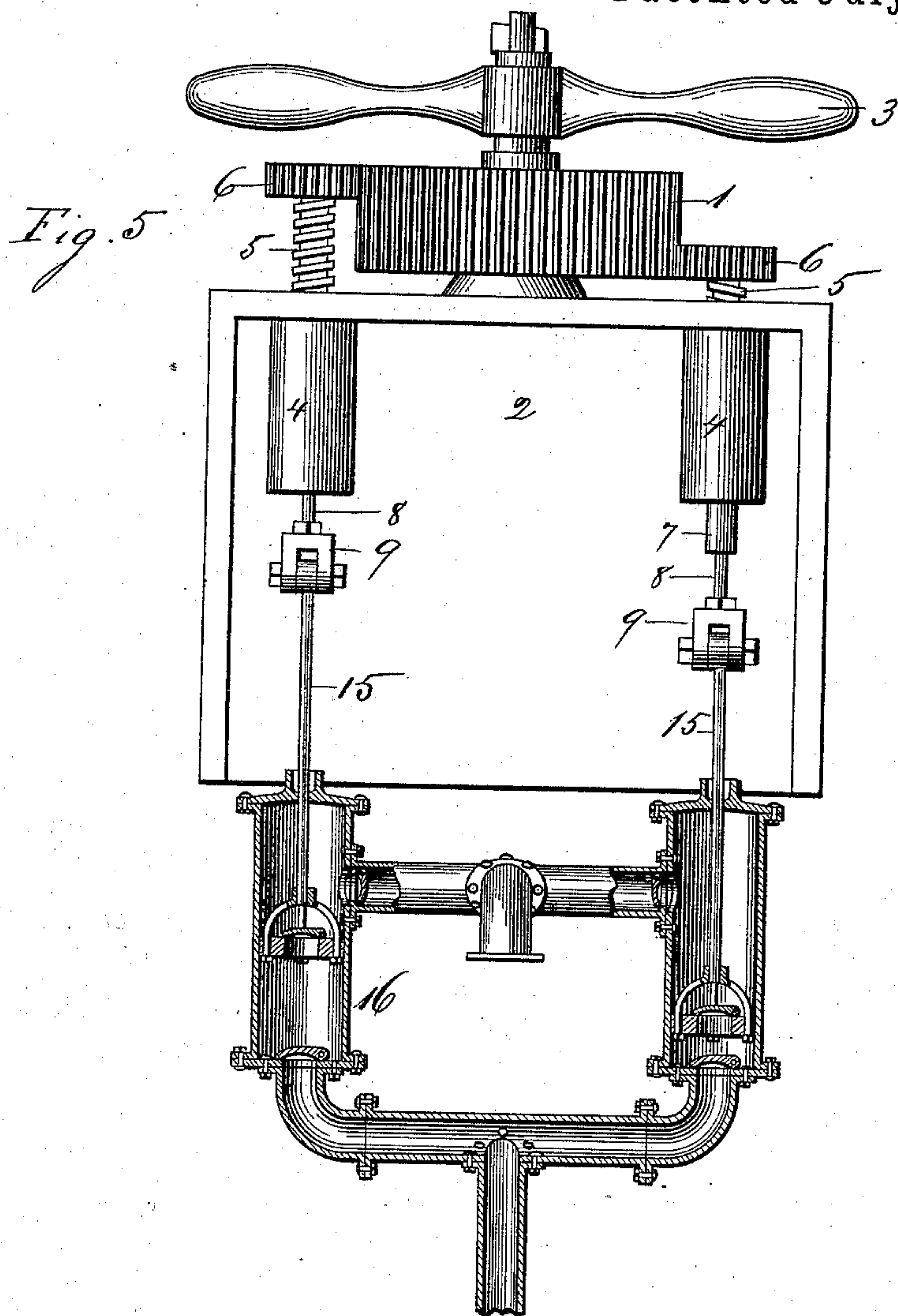
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2 Sheets—Sheet 2.

J. F. SCHOETTES.
MECHANICAL MOVEMENT.

No. 385,377.

Patented July 3, 1888.



Witnesses
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Inventor
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att'y.

UNITED STATES PATENT OFFICE.

JOHN F. SCHOETTES, OF CHICAGO, ILLINOIS.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 385,377, dated July 3, 1888.

Application filed September 16, 1887. Serial No. 249,884. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. SCHOETTES, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mechanical Movements, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its object to provide a new mechanical device for converting an oscillating into a reciprocating movement, and in combination therewith a device for converting such reciprocating movement into a rotary movement; and with that object in view my invention consists of the novel devices and combinations of devices hereinafter described and specifically claimed.

20 In the accompanying drawings, Figure 1 is an elevation, Fig. 2 a plan, Fig. 3 a vertical cross-section, and Fig. 4 a detail view, of my devices arranged to convert an oscillating movement into a rotary movement, as for driving street-cars and for other purposes; and Fig. 5 is a sectional elevation, and Fig. 6 a sectional plan, of my device for driving a pump.

Corresponding referential characters in the several figures of the drawings designate like parts.

30 A broad-faced spur-wheel, 1, is pivotally secured upon a fulcrum-pin of frame 2, and the upwardly-projecting hub of this spur-wheel 1 has secured a cross-handle, 3, to be operated by the hands or feet for imparting an oscillating movement to said wheel. At diametrically-opposite positions in relation to said wheel 1 the frame 2 is provided with vertical hubs 4, that are bored out and screw-threaded—one for a right-hand and the other one for a left-hand screw, 5, a pinion, 6, being mounted upon the upper end of each such screw 5, the teeth of which pinions 6 will mesh with the teeth of wheel 1. With this arrangement a rotating movement of wheel 1 will also rotate screws 45 5, which, having one a right and the other a left screw-thread, will be moved simultaneously in vertically-opposite directions, whereby with

an oscillating movement of wheel 1 these screws 5 will move up and down in alternate order.

Upon the lower end of each screw 5 is secured a sleeve, 7, forming the socket-bearing 50 for the ball-shaped head of a rod, 8, that to its lower end has secured a bifurcated head, 9, coupling with the end of a lever, 10. The opposite ends of these levers 10 are vertically 55 slotted, and are pivoted upon a shaft or axle, 11, having rigidly-mounted ratchet-wheels 12 inside of the slots of levers 10, and each such lever is provided with a pawl, 13, also inside of such slots, pushed into engagement with 60 the ratchet-wheel by a spring, 14, which pawls alternately engaging the teeth of the ratchet-wheels, the oscillation of the two levers 10 alternately in opposite directions will transmit a continuous rotary movement to shaft or axle 65 11. By this device the oscillation of wheel 1 will transmit a reciprocating movement of screws 5 in alternate opposite directions, which will oscillate levers 10, that again, by their alternate pawl-and-ratchet-wheel action, will rotate shaft or axle 11. 70

In Fig. 5 the parts are the same, excepting that rods 8 are coupled with the plunger-rods 15 of a double pump, 16, which pump may be of any ordinary construction. The oscillation 75 of lever 3 by hand or feet will simultaneously reciprocate the pump-plungers in alternate directions, whereby the pump will throw out a continuous stream of water.

What I claim is—

80 The combination, with wheel 1, provided with handle 3, two oppositely-threaded screws, 5, with pinions 6, and with connecting-rods 8, of levers 10, pivoted on shaft 11, and provided with ratchet-wheels 12, mounted upon such 85 shaft 11, all substantially as described, to operate as specified.

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

JOHN F. SCHOETTES.

Witnesses:

WILLIAM H. LOTZ,
OTTO LUBKERT.