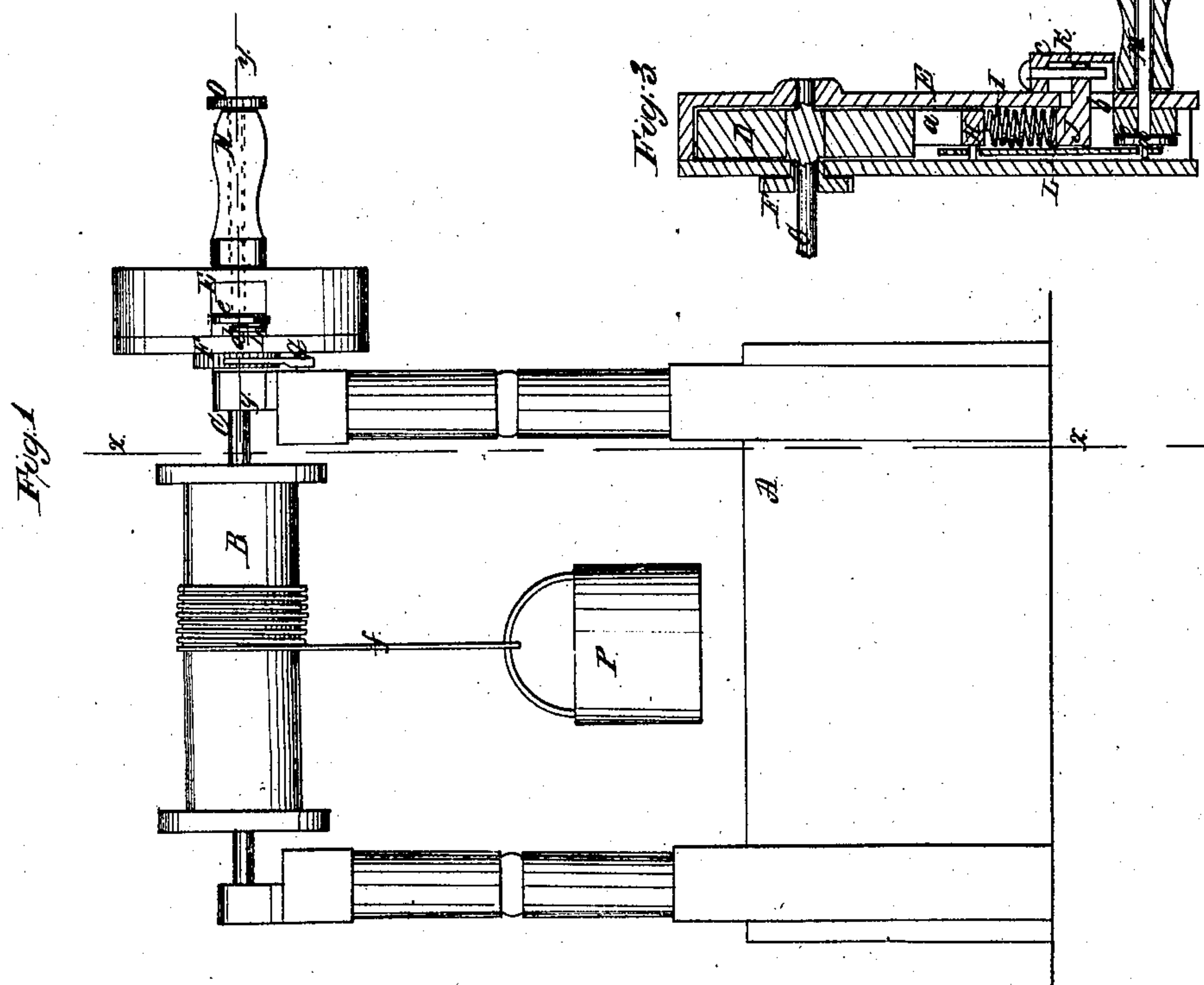
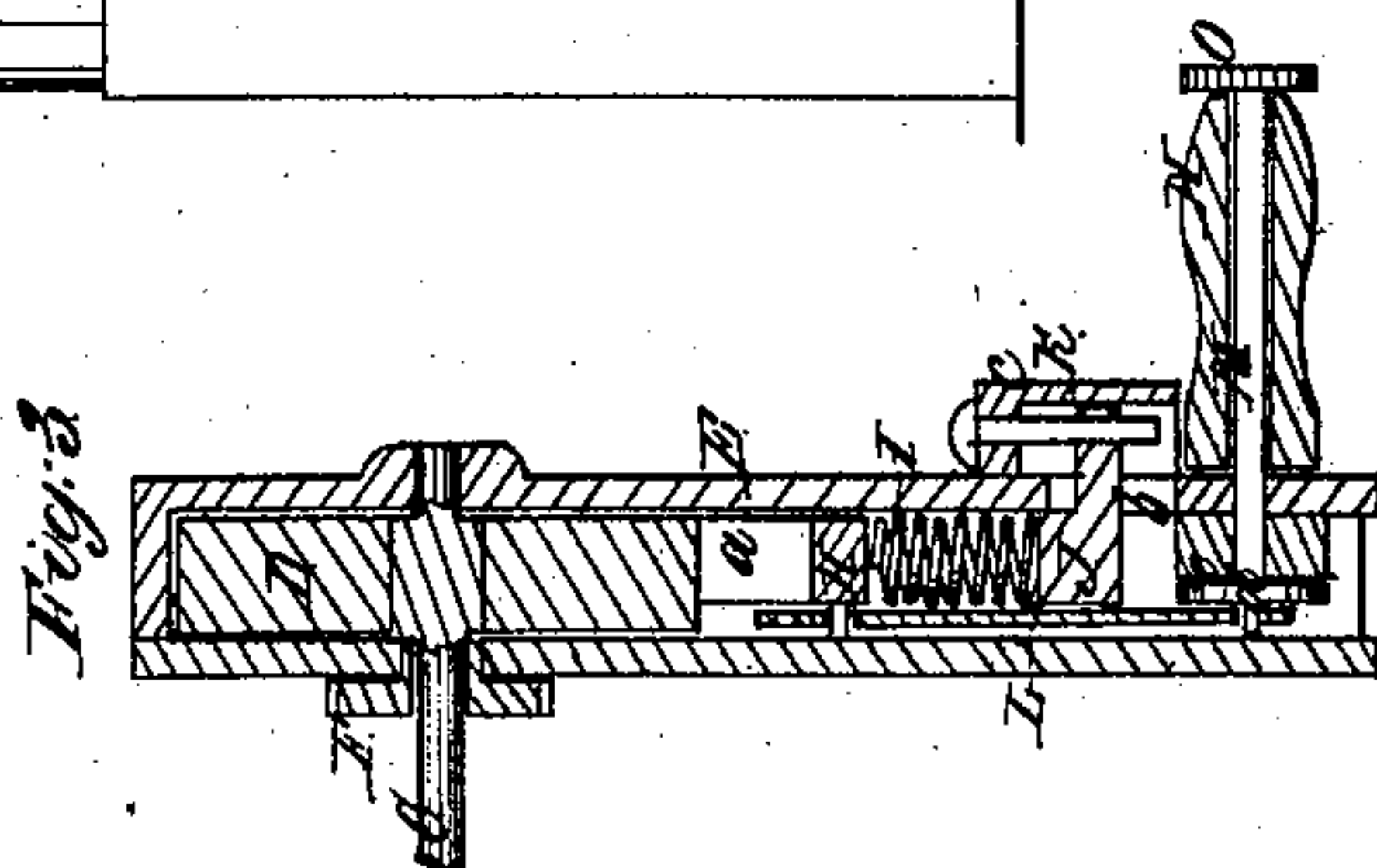
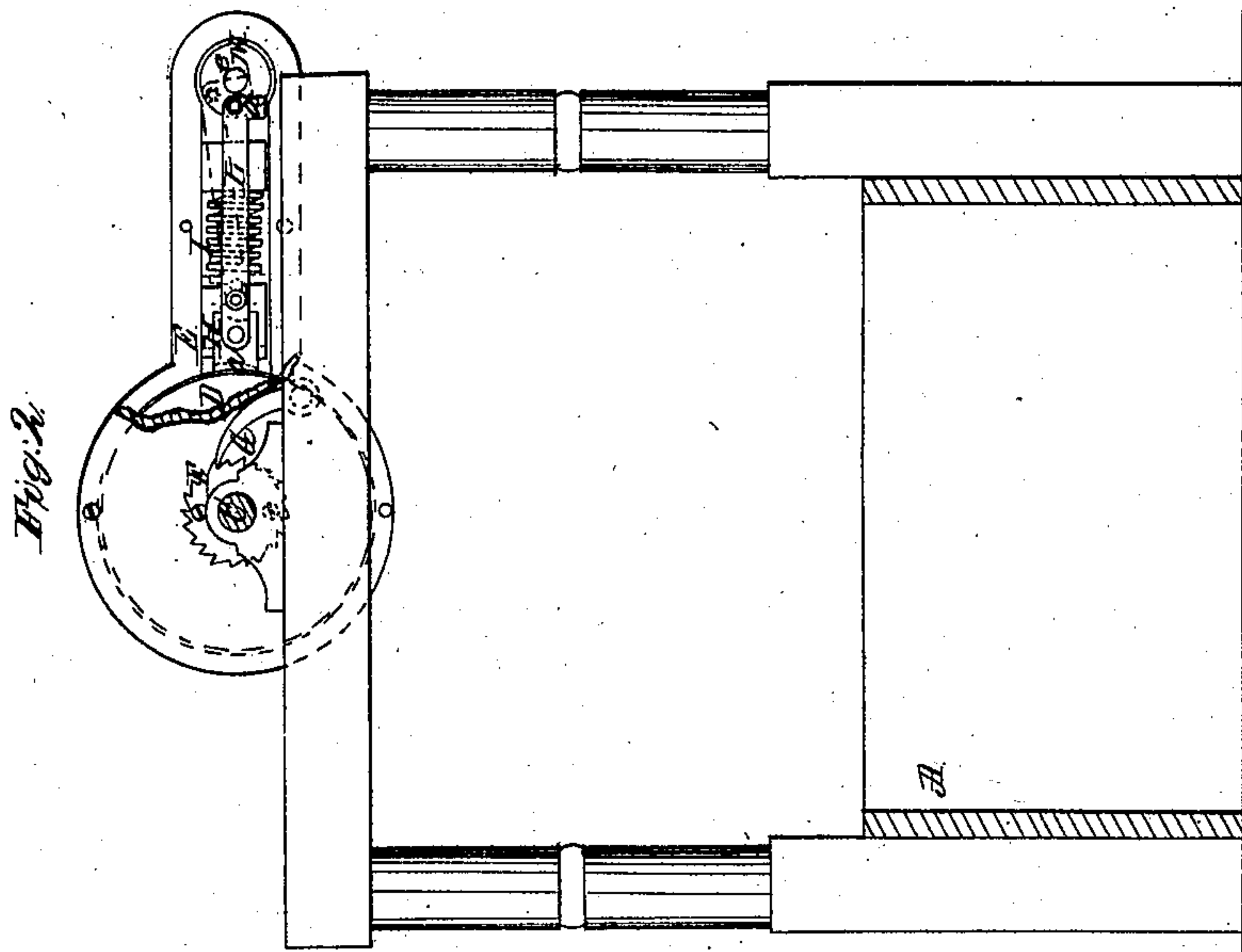


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A. Johnson,
Windlass Water Elevator,

No 36,409,

Patented Sept. 9, 1862.



Witnesses:

J. W. Reed
G. W. Reed

Inventor
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by *Miner & Co*
Attys

UNITED STATES PATENT OFFICE.

ALBERT JOHNSON, OF PUTNAM, CONNECTICUT.

WATER-ELEVATOR.

Specification of Letters Patent No. 36,409, dated September 9, 1862.

To all whom it may concern:

Be it known that I, ALBERT JOHNSON, of Putnam, in the county of Windham and State of Connecticut, have invented a new and useful Improvement in Windlasses for Wells; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view of my invention applied to a well-curb. Fig. 2 a side sectional view of the same, taken in the line *x*, *x*, Fig. 1, a portion of the crank mechanism being also in section. Fig. 3 a detached sectional view of the crank mechanism, taken in the line *y*, *y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a well-windlass of simple and economical construction by which the bucket may be raised with facility and allowed to fall at any time, or from any point at the will of the operator, and without a reverse movement of the crank.

Well-windlasses of this class have been previously devised; but, so far as I am aware they have all been complicated in their arrangement, involving the necessity of reversing the movement of the crank in order to release the bucket, and thereby not admitting of the operator having that control over the device that he should have in order to avoid the bucket being injured by a too rapid descent in the well, and also by a casual releasing of the bucket.

My invention it is believed fully obviates this difficulty, and by a very simple means, which is not liable to get out of repair or become deranged by use.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a well-curb which may be constructed in any proper way, and B is a drum the shaft C of which has its bearings on the upper part of the framing of the curb. The drum is permanently attached to its shaft C turning with it, and one end of said shaft has a wheel D attached permanently to it. This wheel has a smooth periphery, and is at the outer end of the curb frame.

E is what may be termed a crank-box

which is of oblong form, and cylindrical at one end, so as to inclose the wheel D. This crank-box is fitted loosely on the shaft C, the latter passing through its sides at each side of the wheel D. The inner side of the crank-box E has a ratchet F attached to it into which a pawl G, secured to the curb-frame catches. The ratchet F is, like the crank-box, fitted loosely on the shaft C.

H is a slide which is placed in the crank-box E, and has a piece of india-rubber, leather, or other suitable elastic or yielding substance *a* to its end which faces the periphery of the wheel D, see Figs. 2 and 3. This slide H has a spring I bearing against its outer end and this spring has a tendency to keep the slide in contact with the periphery of the wheel D. The outer end of the spring I is in contact with a bar J, one end of which passes through an oblong slot *b* in the outer side of the crank-box, and has a screw K passing through it, said screw passing through the end of a small box *c*, attached to the crank-box E, and fitting in an internal screw thread in J. By turning the screw K the bar J may be moved within the crank-box and the strength of spring I graduated as desired, to regulate the pressure of the slide H on the wheel D. This will be fully understood by referring to Fig. 3. The slide H has one end of a bar L attached to it, the opposite end being connected to or fitted on a pin *d* which is attached to a small pulley *e*, at a point some distance from its center or axis—see Fig. 2. The slide H and pulley *e*, are both within the crank-box E, and the pulley is fitted on a shaft or rod M which passes through the outer side of the crank-box and through a handle N, by which the crank-box is turned. The outer end of the shaft or rod M has a small thumb-wheel O secured to it. The slide H it will be seen serves as a brake and connects the crank-box E, with the shaft C, in consequence of being pressed by the spring against the wheel D. In elevating the bucket P, which is attached to the drum B by a chain or rope *f*, the crank-box E is turned by the operator who grasps the handle N, the pawl G and ratchet F, preventing any casual reverse movement of the crank-box and shaft C. When it is desired to lower the bucket P, the operator turns the shaft or rod M, and the crank pulley *e*, and bar L draw back the slide or

brake H from the wheel D, and thereby disconnect the crank-box E from the shaft C, so that the latter will be left free to turn and the bucket P allowed to descend by its
5 own gravity. The speed of the descent of the bucket may be regulated as desired by graduating the pressure of the slide or brake H on the wheel D, and the instant the operator releases the shaft or rod M, the
10 spring I turns the slide or brake H in contact with the wheel D and connects the crank-box with the shaft C.

The arrangement is extremely simple and under the complete control of the operator, as the liberation of the bucket from the
15 crank-box does not depend upon a reverse movement of the latter, and consequently the bucket is not liable to become casually or accidentally liberated, a contingency
20 which not unfrequently occurs in using those hitherto devised.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The crank-box E placed loosely on the shaft C, and provided with the slide or brake H, spring I, pulley e, and bar L, in connection with the wheel D attached permanently to the shaft C, and placed within the crank-box, all being arranged to operate substantially as and for the purpose set forth. 25 30

2. I further claim the graduating of the pressure of the slide or brake H, on the wheel D, by means of the bar J adjusted by the screw K, so as to regulate the strength of the spring I, but this I claim only when used in combination with the crank-box E and the mechanism contained within it, for the purpose specified. 35

ALBERT JOHNSON.

Witnesses:

WM. J. STONE,
I. W. MANNING.