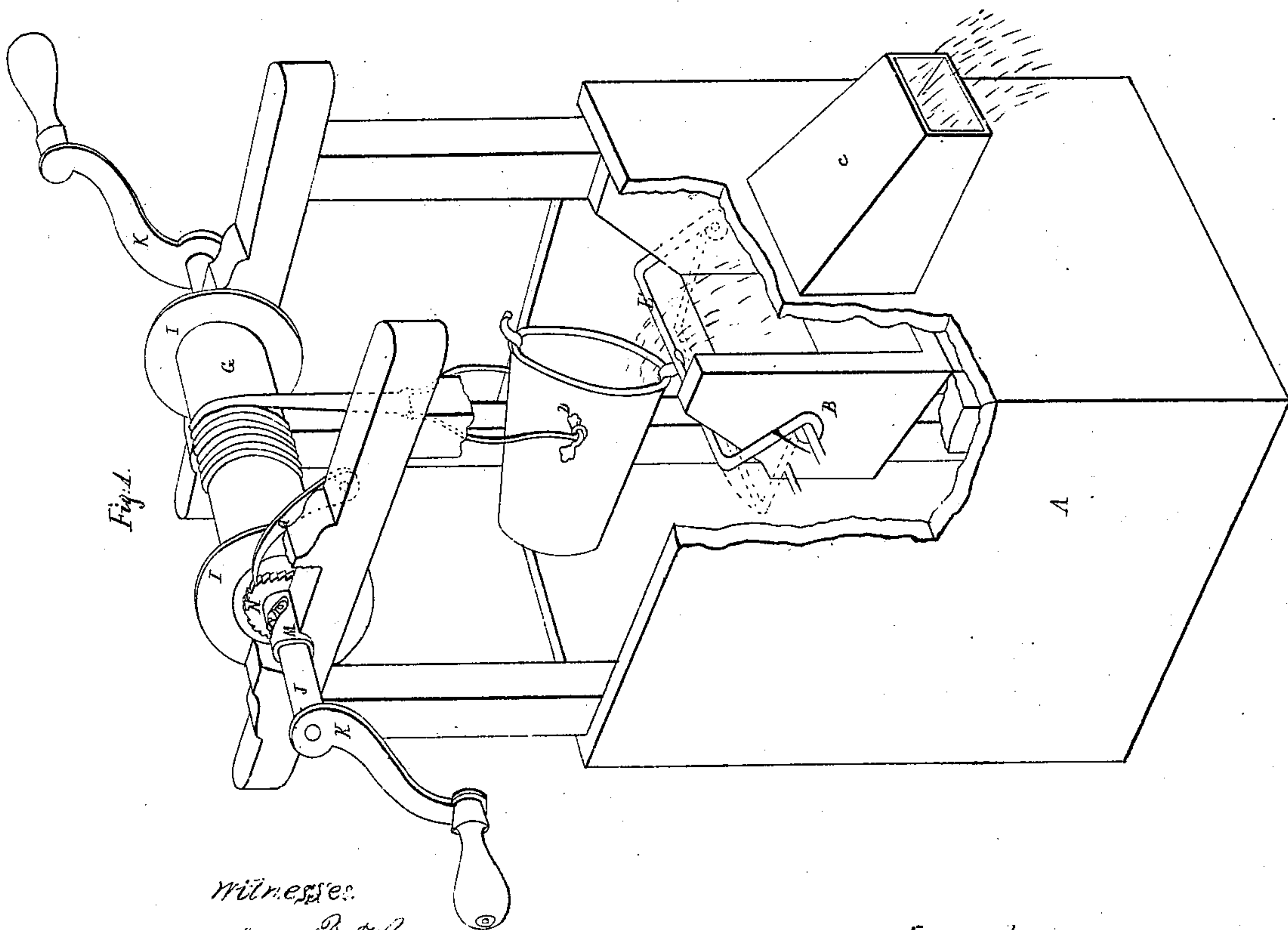
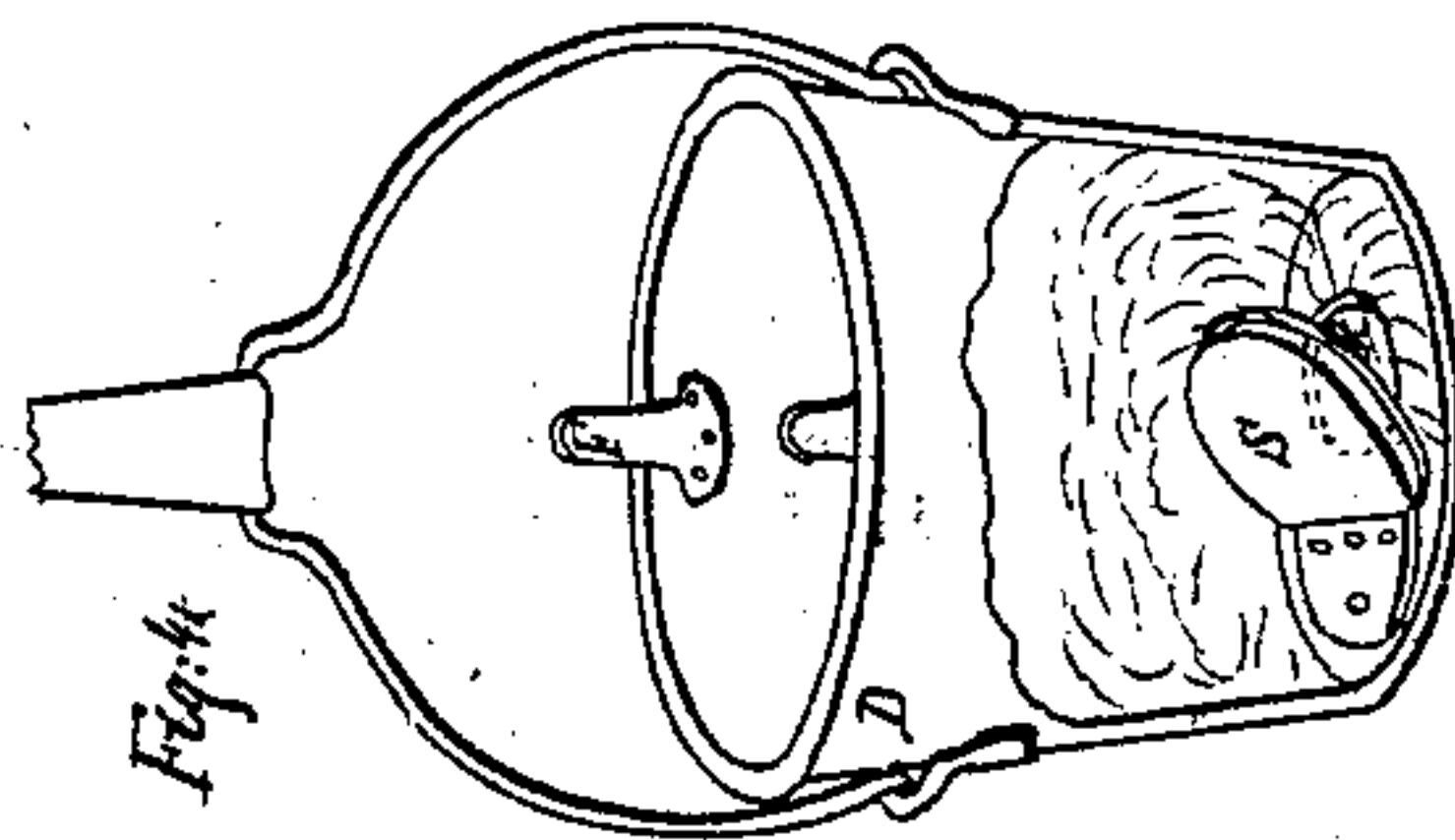
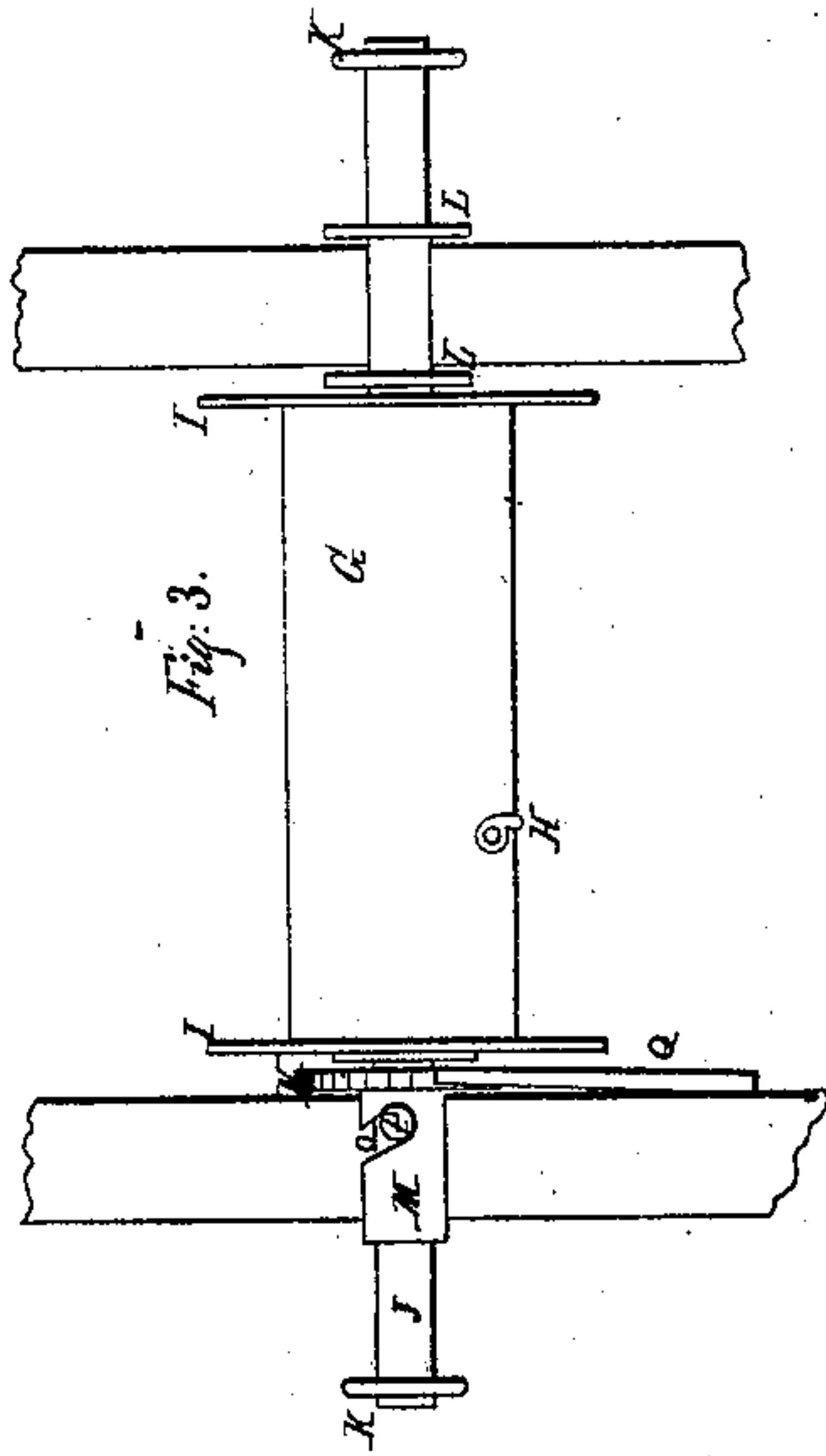
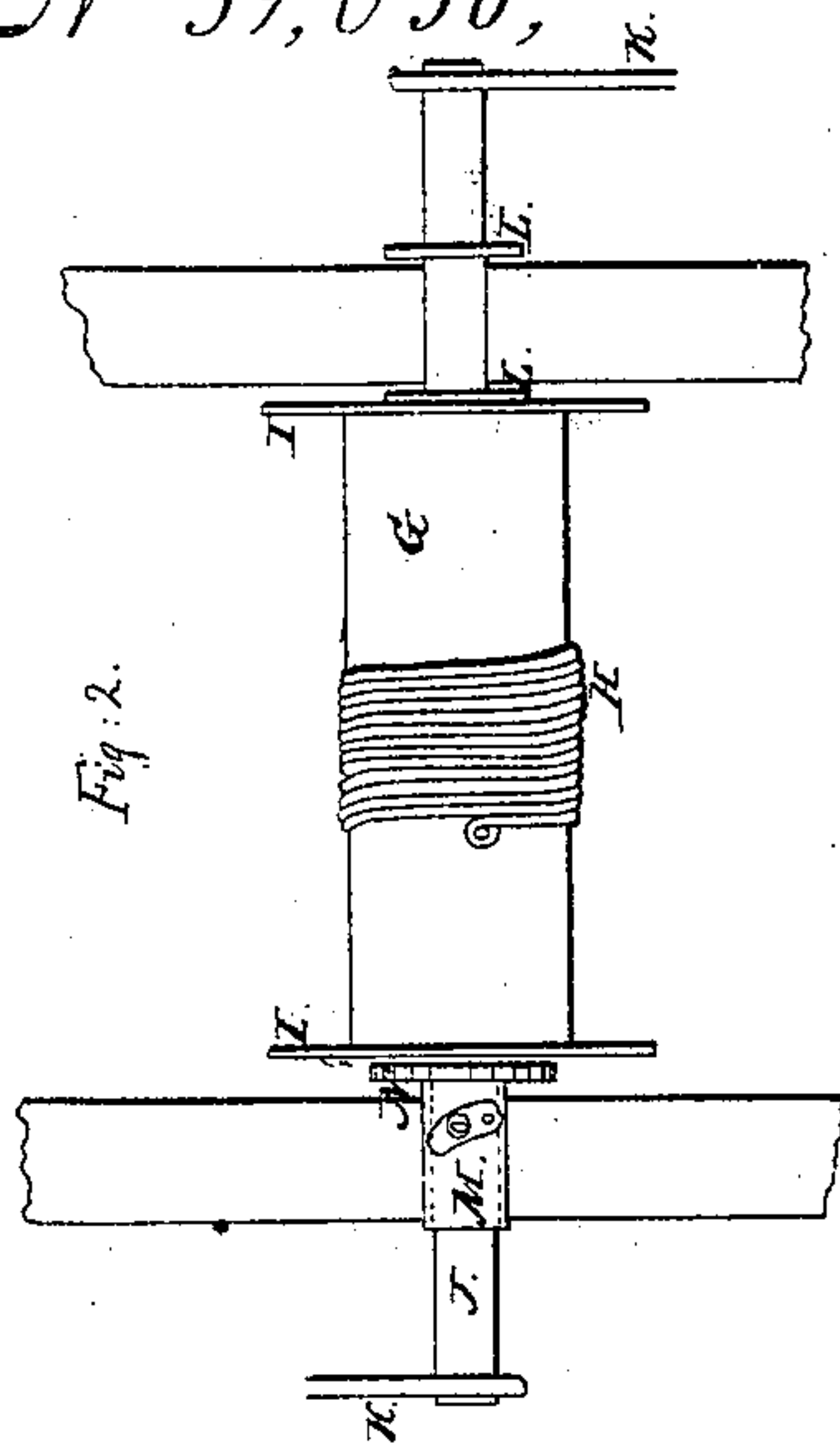


J. E. Cronk,

Windlass Water Elevator,

N^o 39,036,

Patented June 30, 1863.



Witnesses:
James B. Way
Charles B. Mober

Inventor
James E. Cronk,

UNITED STATES PATENT OFFICE.

JAMES E. CRONK, OF POUGHKEEPSIE, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 39,036, dated June 30, 1863; antedated January 10, 1863.

To all whom it may concern:

Be it known that I, JAMES E. CRONK, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Figure 1 is a perspective view of the water-elevator ready for operation. Figs. 2, 3, 4 are sectional parts of the water-elevator.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The curb A is made in any ordinary style, and has a small trough, B, inside, which has an opening that connects it with the spout C that receives the discharge-water from the bucket D. The rod E extends the length of said trough B, and is also bent around the ends of said trough B, with pin-holes in each end and pins therein, for the purpose of having it move freely, so that, when the bucket D ascends, the hook F on the top of the bucket D hooks under the rod E and causes the bucket D to discharge its contents into said trough B; but the curb, bucket, and filling and tilting apparatus may be of any other desired construction. Said bucket D is connected to loose roller G by a rope, H. Said roller G may be made of wood, with iron flanges I I screwed against the ends of said roller G and projecting a little above the roller G. A hole is made through the entire length of the roller G and flanges I I. An iron shaft, J, is then made a sufficient length to reach across the curb A, with cranks K K secured thereto, and the loose roller G placed thereon. On said shaft J are two collars, L L, which serve to hold the shaft J from moving endwise, and also form a shoulder for one end of the loose roller G to bear against. The collars can only be seen in the sectional drawings of Figs. 2 and 3, one end bearing against one of the said collars of L L, while the other end has a short sliding tube, M, with a ratchet, N, made fast on the end of said tube M. Said tube M and ratchet

N are then slipped on the shaft J, and close against the end of the loose roller G. Said tube M has also a slot O made through one side of it. A pin-hole is made in said shaft J, and a pin, P, inserted therein through the slot O, one end of the slot O being made nearer than the other to the side of the ratchet N. A dog, Q, is secured to the cross-piece, on which the said shaft J rests to prevent the backward movement of the ratchet N. Collars L L are fastened on the shaft J, and are about two inches apart—one being outside of said cross-piece and the other inside. Thus it forms a shoulder for the loose roller G to bear against, and prevents said shaft J from sliding endwise, the said short sliding tube M, with ratchet N, being at the opposite end of the loose roller G, and showing the position of said slot O, the pin P being moved forward in the slot O by revolving the shaft J, and thus it causes the said tube M and ratchet N to slide on the shaft J and come in contact with the end of loose roller G, and by this means it will engage the loose roller G to the shaft J by being forced against one of the said collars of L L by the short sliding tube M and ratchet N.

In Fig. 3 the slot O and the position of pin P are shown at the lower end of slot O when the loose roller G is disengaged from the action of the shaft J, thereby leaving an open space between the end of loose roller G and one of the collars at L L.

Fig. 4 shows the bucket D with a hole in the bottom, and a common valve placed thereon, for the purpose of being filled from the bottom, R being the hole in the bottom, and S the valve, and F the hooks on the top of the bucket D, for the purpose of hooking under said rod E and causing the bucket D to discharge its contents.

The operation is thus: By revolving the shaft J from you, the pin P moves in the slot O and causes the short sliding tube M and ratchet N to slide against the end of loose roller G, thus forcing it against one of the said collars of L L. It engages the loose roller G with the shaft J, and thus makes it ready for elevating the bucket D. To disengage the roller G from the shaft J, you reverse the motion of shaft J, and thus cause the pin P to

move backward in slot O, the dog Q preventing the backward revolution of the short sliding tube M and ratchet N, and causing said tube M and ratchet N to slide away from the end of roller G, to a greater or less extent, as may be required for the easy descent of the bucket D into the well.

I claim—

The combination and arrangement of the shaft J, loose roller G, ratchet N, or its equivalent, and sliding tube M, substantially as described.

JAMES E. CRONK.

Witnesses:

JAMES B. WAY,

CHARLES C. MALLEY.