

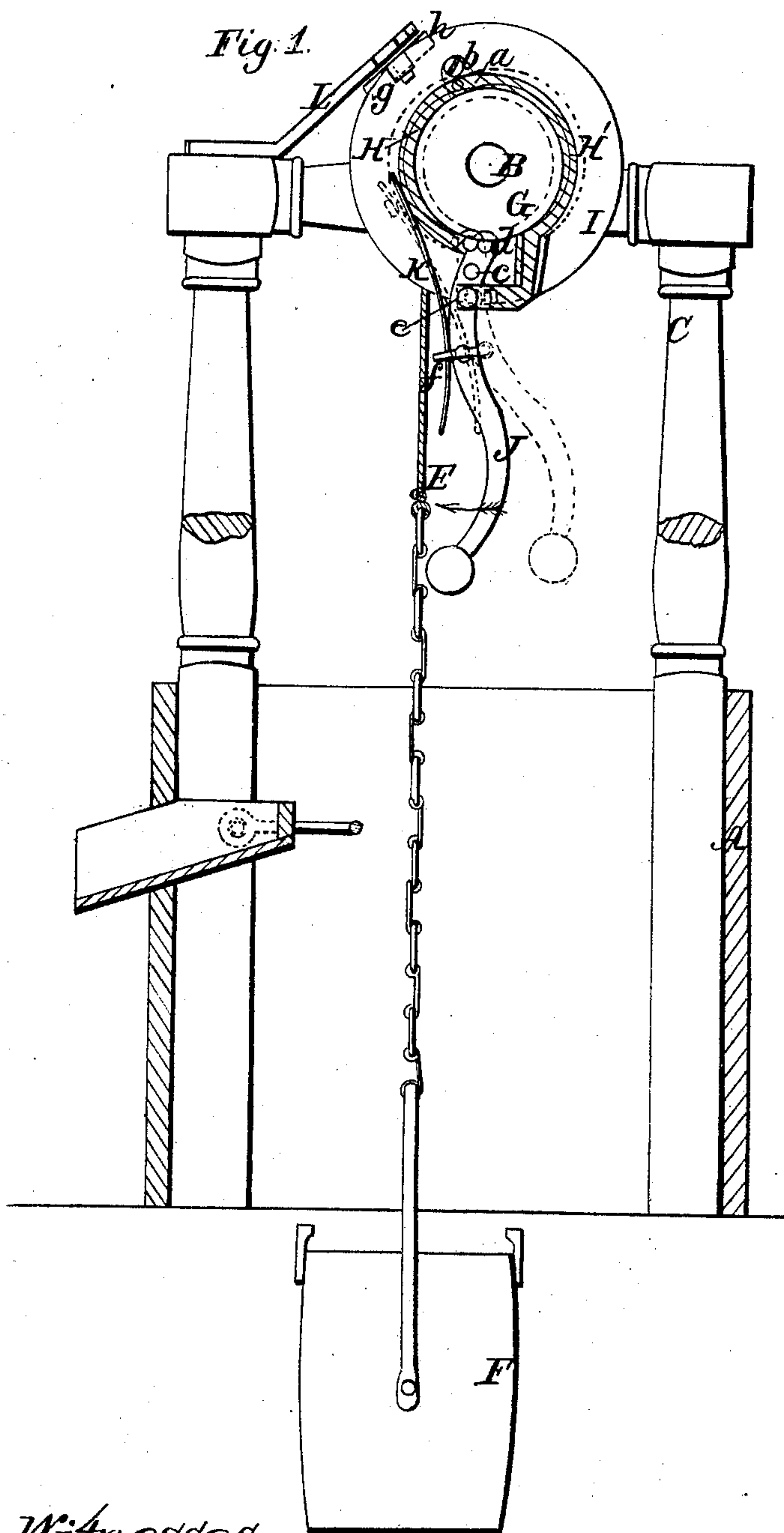
J. C. Barrett.

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Sheet. 1

Water Elevator.

No. 41,410.

Patented Jan. 26. 1864.



Witnesses;
Thos. D. Mearns
Geo. W. Reed

Inventor;
Jas. C. Barrett

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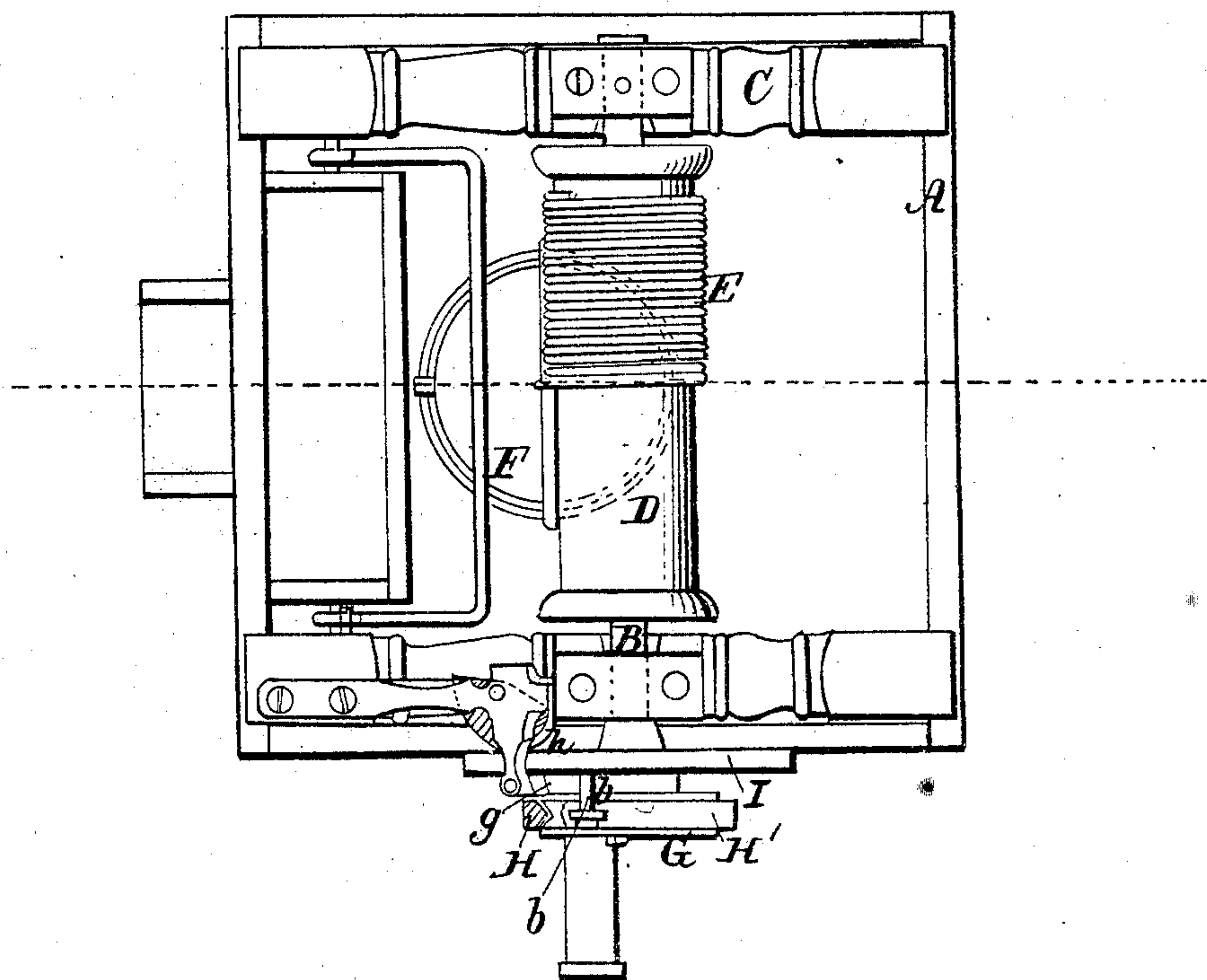
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Fig. 2.



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JAMES C. BARRETT, OF STAMFORD, CONNECTICUT, ASSIGNOR TO JOSEPH R. VAN MARTER, OF LYONS, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 41,410, dated January 26, 1864.

To all whom it may concern:

Be it known that I, JAMES C. BARRETT, of Stamford, in the county of Fairfield and State of Connecticut, have invented a new and Improved Windlass; 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 side view of my invention, the framing being in section; Fig. 2, a plan or top view of the same.

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

This invention relates to certain improvements in windlasses for raising light weights, designed more especially for raising water from wells in buckets.

The object of the invention is to obtain a windlass of simple construction which will admit of the bucket being lowered by its own gravity by a very simple manipulation of the crank and without having the latter turned with the drum of the windlass as the bucket descends, the filled bucket at the same time being held at any desired point when the crank is free from the hand of the operator.

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 the usual or in any proper way, and B is a windlass-shaft, the bearings of which are on the upper part of the framing C of the curb.

On the shaft B a drum, D, is permanently secured, and to which the bucket chain or rope E is attached, F being the bucket, which is secured to the lower end of the chain or rope.

The shaft B extends some distance beyond one end of the drum D, and has a pulley, G, firmly keyed upon it, said pulley having a grooved periphery to receive two semicircular clamps, H H', which are connected at one end by a pivot, a, and are fitted near the pivot a on the pin b, which is attached to a circular disk, I, the latter being fitted loosely on the shaft B.

J represents a crank, which is fitted or works on a pin, c, attached to the disk I. The inner end of the crank J is connected to the

clamp H by a pivot, d, and the other clamp, H', is connected to the crank by a pivot, e, the two pivots d e being at opposite sides of the pin c, on which the crank J is fitted, as shown clearly in Fig. 1.

K is a spring, which is attached to the clamp H, and extends through an eye, f, attached to the crank J. This spring K has a tendency to keep the clamps H H' in contact with the pulley G, and to hug or bind against it sufficiently hard to prevent said pulley turning within the clamps.

L is an inclined bar attached to the upper part of the framing C, said bar L having a friction-roller, g, connected to it and which bears against the outer side of the disk I, and also having an eccentric, h, attached to it, which bears against the inner side of the disk I. (See more particularly Fig. 2.)

From the above description it will be seen that by turning the crank J in the direction indicated by arrow 1 the drum D will also be turned in consequence of the clamps H H' bending upon the pulley G, the crank as it is thus turned having a tendency to press the clamps snugly to the pulley, and the chain or rope E will consequently be wound upon the drum D and the bucket F elevated. In case the operator should release the crank J at any time during the ascent of the bucket, the latter is prevented from descending in consequence of the disk I being held by the clamp formed of the roller g and eccentric h, said disk, it will be understood, being connected with the crank J and clamps H H', and the spring K causing said clamps to bind or press sufficiently upon the pulley G to permit the latter turning under the gravity of the bucket and its contents. In order to allow the bucket to descend, the operator presses the crank J in a direction opposite to that in which it was turned to elevate the bucket, and the clamps H H' are thereby forced apart, so as to release the pulley G, as shown in red in Fig. 1, and the drum D is consequently allowed to turn freely under the weight of the bucket, the latter descending into the well in order to be filled.

The whole arrangement, it will be seen, is extremely simple and efficient, there are no parts liable to get out of repair, and the device may be constructed at a reasonable cost.

Having thus described my invention, what

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

1. The pulley G, attached to the shaft B of the windlass, in connection with the disk I, placed loosely on the shaft B, the clamps H H', and crank J, all arranged to operate substantially as and for the purpose specified.
2. The eccentric *h* and the friction-roller *g*,

or an equivalent bearing, when used in combination with the disk I and applied to a windlass to operate as and for the purpose set forth.

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