

(No Model.)

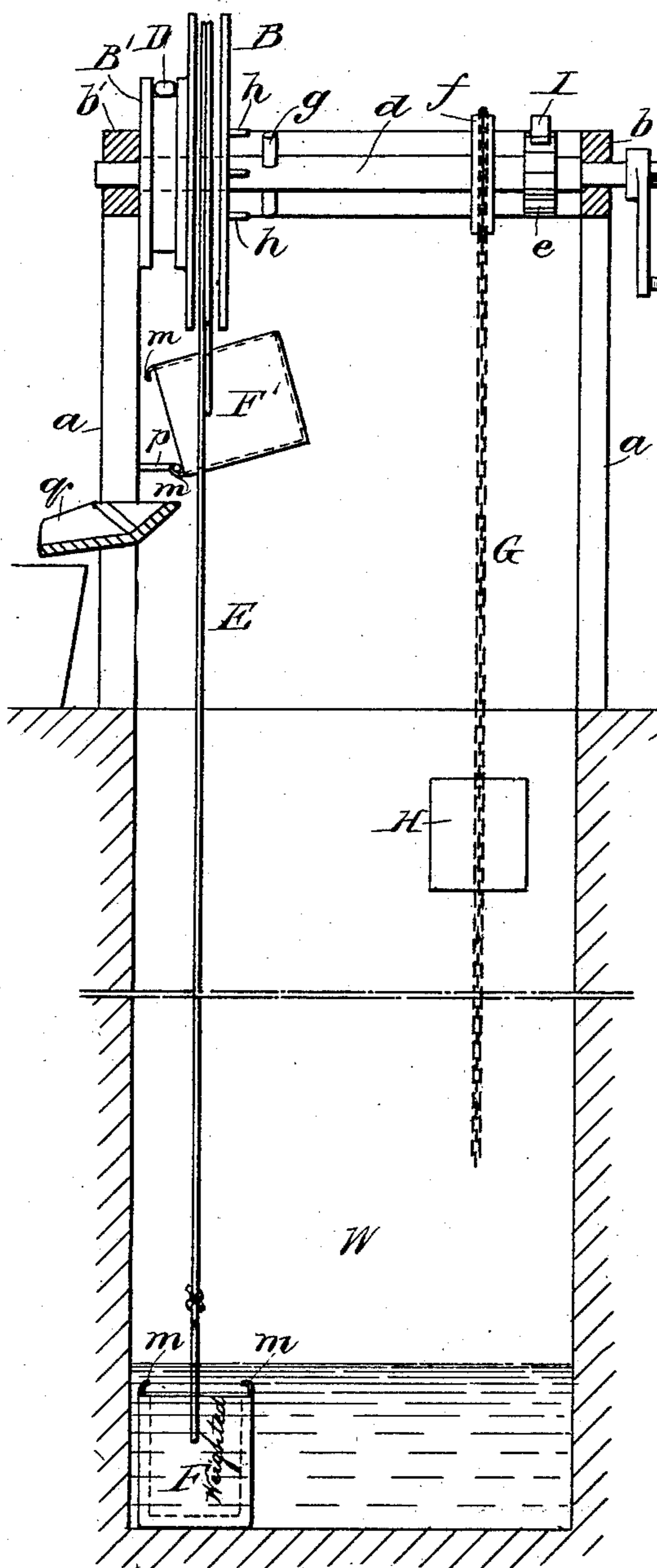
B. J. HEWITT.

WATER ELEVATOR.

No. 327,167.

Patented Sept. 29, 1885.

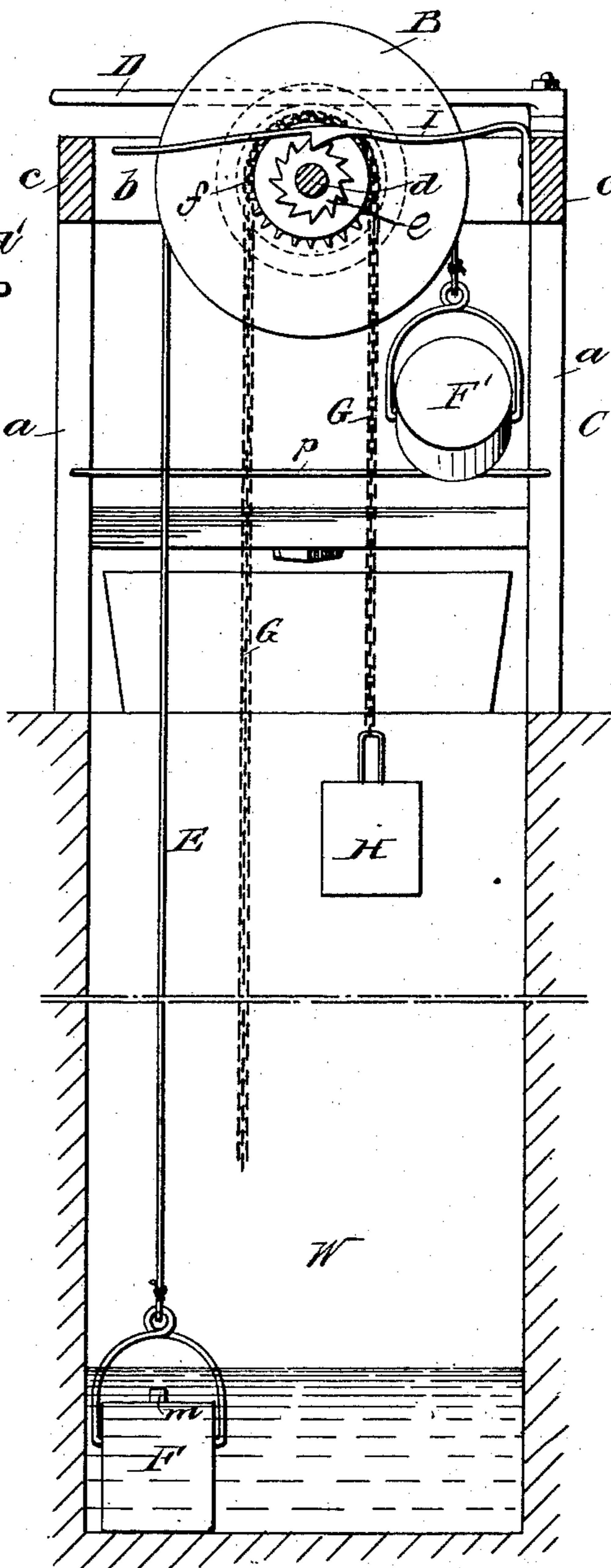
Fig. 1.



WITNESSES:

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Fig. 2.



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BENJAMIN J. HEWITT, OF MANTON, MICHIGAN, ASSIGNOR TO HIMSELF AND JOHN BENSON, OF SAME PLACE.

WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 327,167, dated September 29, 1885.

Application filed May 15, 1885. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN J. HEWITT, of Manton, in the county of Wexford and State of Michigan, have invented a new and Improved Water-Elevator, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional elevation of a well and well-curb having my invention applied thereto, and Fig. 2 is a transverse sectional elevation of the same.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

Placed over well W is the curb C, composed of uprights *a a* and cross-pieces *b b'* and *c c'*. In cross-pieces *b b'* is journaled the crank-shaft *d*. On this is secured the ratchet-wheel *e* and sprocket-wheel *f*, and through it is passed the pin *g*.

Between the pin *g* and the cross-piece *b'* of the curb is placed loosely upon the shaft *d* the large grooved pulley B. To one side of this pulley is secured the grooved flanges *B'*, in the circumferential groove of which the lever D is placed, which acts as a brake to pulley B, and also as a means for sliding the pulley B upon the shaft *d* to cause it to clutch with pin *g* or to be released therefrom.

The lever D is pivoted upon the cross-piece *c'* of the curb, as shown in Fig. 2, and the pulley B is provided at one side with the pins *h*, adapted to engage with the pin *g* for clutching or locking the pulley to the shaft *d*, as will be understood from Fig. 1.

A rope, E, is passed once around the pulley B, and to each of its ends is attached a water-bucket, F F'.

Over sprocket-wheel *f* is placed the chain G, and to one end of this is attached the heavy weight H.

A locking dog or pawl, I, is attached to cross-piece *c'* of the curb, and reaches over shaft *f* to come in contact with the ratchet-wheel *e*, for holding the shaft from being revolved by weight H, except when the pawl or dog I is raised out of engagement with the ratchet *e*.

In operation the pulley B will be moved to the left on shaft *d* to disengage pins *h* from pin *g*. Then the shaft *d* will be turned by crank *d'* to wind up the weight H, which will be held by pawl I and ratchet *e*. The bucket F will be heavier than the bucket F'—enough heavier to lift the latter when filled with water—and when the pulley B runs loose on shaft *d*, the bucket F will be raised by weight H. While bucket F' is being raised the bucket F will at the same time be lowered and filled, as shown in Fig. 1. Now to lift bucket F the pulley B must be moved to the right on shaft *d* by lever D, to engage pins *h* with pin *g*, and then the pawl I must be raised out of engagement with ratchet *e*, which permits weight H to turn shaft *d* and pulley B, and thus lift the bucket F. This bucket being raised and emptied, pulley B will again be moved on shaft *d* to disengage pin *h* from pin *g*, which will permit pulley B to again run loose on shaft *d*, so that the superior weight of bucket F will raise filled bucket F'. In this manner much time may be saved in the labor of elevating water from wells.

For convenience in emptying the buckets F F', I form or provide them with hooks *m m*, and provide the curb with the rod *p* above the spout *q*, so that as the buckets reach the rod *p* the hooks *m* may be caught upon the rod and the buckets tipped over the spout, as illustrated in the drawings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a water-elevator, the shaft having the loosely-mounted shifting pulley, around which pulley is coiled a rope with buckets connected to its ends, one bucket being enough heavier than the other bucket to overbalance the latter bucket and its contents, substantially as and for the purpose set forth.

2. In a water-elevator, the shaft having transverse pins, and the loosely-mounted shifting pulley having pins to engage the pins of the shaft, in combination with the rope coiled around said pulley and having buckets connected to its ends, one bucket being enough heavier than the other bucket, including its contents, to overbalance the latter filled bucket, and the chain passed over a pulley on said

shaft, and having a weight at one end to elevate the heavier filled bucket as the bucket-rope pulley is shifted into engagement with the shaft, substantially as and for the purpose set forth.

3. In a water-elevator, the shaft having the loosely-mounted shifting pulley, around which pulley is coiled a rope, to the ends of which rope are connected buckets, one bucket being

enough heavier than the other bucket to overbalance the latter bucket filled, said buckets also having hooks to engage with a bail, substantially as and for the purpose set forth.

BENJAMIN J. HEWITT.

Witnesses:

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