W. WALTER.

Water-Elevator.

No. 161,079. Patented March 23, 1875.

Fig 1

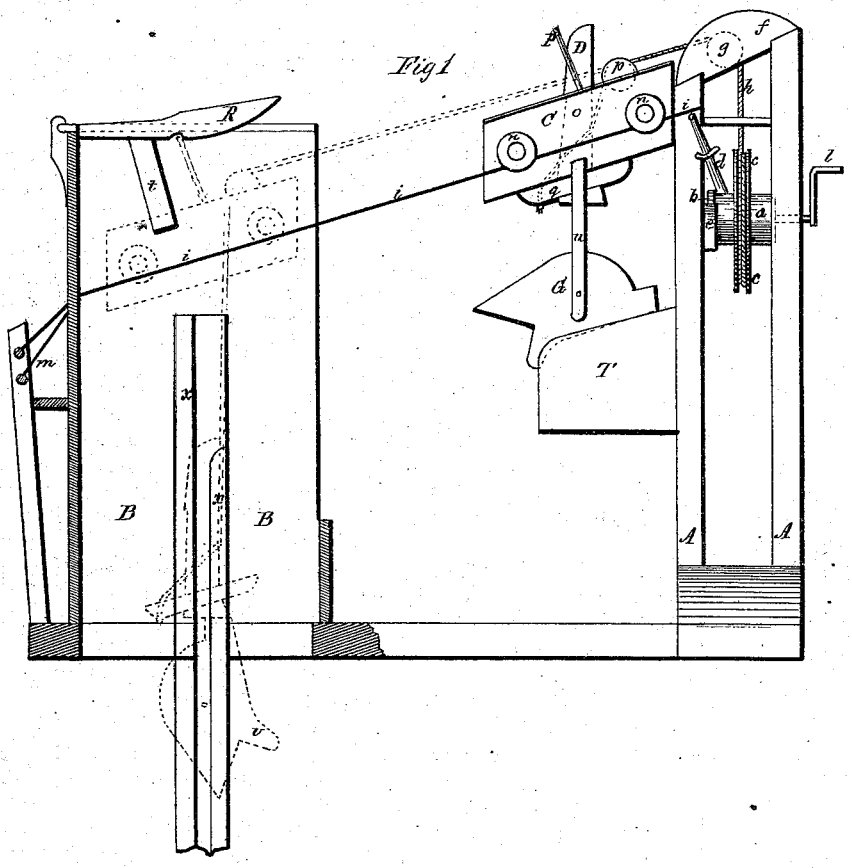
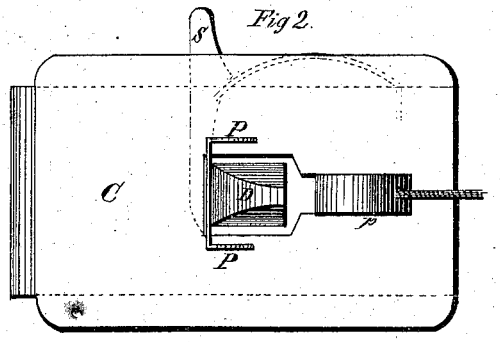


Fig 2.



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UNITED STATES PATENT OFFICE.

WILLIAM WALTER, OF DERRY STATION, PENNSYLVANIA.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **161,079**, dated March 23, 1875; application filed February 1, 1875.

To all whom it may concern:

Be it known that I, WILLIAM WALTER, of Derry Station, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in water-elevators; and consists in an arrangement of parts by means of which water can be drawn from wells, springs, and reservoirs, and delivered at a place distant from the source from which it is derived, as will be more fully described hereafter.

The accompanying drawings represent my invention.

A represents a frame, consisting of two uprights, far enough apart to leave room for a hoisting apparatus, composed of a shaft, *a*, with a ratchet, *b*, around one end of it; a hoisting-wheel, *c;* lever *d*, to check the velocity of the wheel; and the dog *e*, to hold the wheel in any desired position by catching in the ratchet. Between the upper ends of these uprights, and inclining inward, is a brace, *f*, holding a pulley, *g*, over which the cord *h* from the hoisting-wheel passes. Attached at the outside of the inner upright is a box or trough, T, of suitable width and depth for the water to be emptied into by the bucket carrying the water from the reservoir or well.

The frame A, with its hoisting apparatus, is placed where the water is to be conveyed, and the crank *l*, by which the wheel is turned, is at a height to be of easy reach. Around the well, spring, or reservoir from which the water is to be drawn, is constructed a frame, B, inclosed on three sides to the top. The fourth side, which is toward the hoisting apparatus, and also the top of the frame, are left open. Wire-ropes or chains *i*, extending from the top of the frame A into the open side of the frame B, pass through the latter to the outside *m*, and may there be stretched or tightened over rollers, or in any other manner. These wire-ropes *i* are inclining from the top of the frame A downward to the point of their attachment *m* behind the frame B, at a suitable distance the one from the other, for the purpose of supporting the wheels *n* of a carrier, C, which runs down the inclined ropes into the frame B, and is drawn up by means of the hoisting apparatus.

The carrier C consists of an oblong block, provided with flanged wheels *n*, having in the middle a square hole, *o*, cut in such a manner as to be vertical when the carrier is placed obliquely on the ropes. In front of this hole is a pulley, *p*, over which the cord *h* from the pulley *g* in the top of the frame A passes, and enters the hole *o*. A tapering shaft, D, to which a suitable frame, *q*, for upholding the bucket G, is attached, enters the hole *o* from underneath, and has a notch cut into its side, into which the spring-catch S enters, and is there held until the catch S, by coming in contact with a stop, *t*, on the inside of the frame B, is drawn out, and the shaft, with its load, allowed to unwind the rope and descend into the well or spring. The cord *h*, after passing from the hoisting-wheel over the pulleys *g* and *p* into the hole *o*, is attached to the frame *q*, with which the shaft D is connected, so that when the cord *h* is wound around the hoisting-wheel the shaft D, with the frame *q* and bucket G is drawn upward. Over the square hole, *o*, and on the upper side of the carrier C, is a loop, P, which is caught by a catch, R, pivoted in the top of the rear side of the frame B, when the carrier has run down against that side. The catch R holds the carrier firmly until the shaft D, with its load, has been drawn up by the cord *h*, when the upper end of the shaft, in its upward motion, pushes up the catch R, and the spring S enters at the same time the notch in the shaft, holding it until, on its return downward, the spring-catch is made to lose its hold by the stop *t*, and the shaft is dropped down again, and the bucket lowered into the well.

The sides *u* of the frame *q*, in which the bucket G is journaled, serve to guide the bucket down and up in the slides *x* in the inside of the frame B. The bucket is so balanced in its journals that when filled with water the opening is turned upward; but when drawn up against the trough two projections,

v, catch against a rod in the front of the trough, whereby the bucket is tilted over and the water emptied into the trough.

Having thus described my invention, I claim—

The combination of the carrier C, having the loop P attached thereto, shaft D, spring-catch S, catch R, stop *t*, and a hoisting apparatus, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1875.

WILLIAM WALTER.

Witnesses:
JOS. FISHER,
WILLIAM IRWIN.