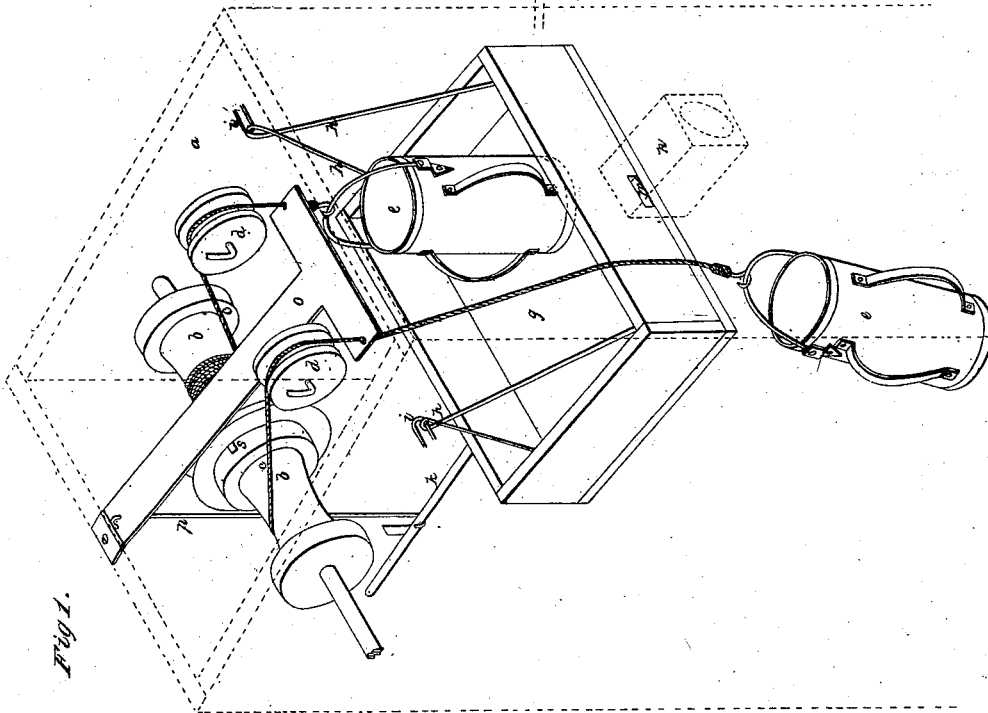
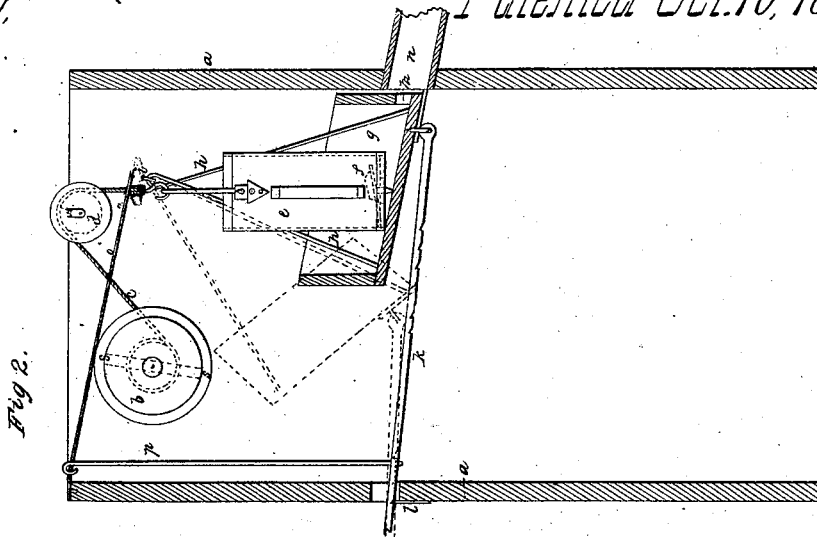


H. W. Sabin

Windlass Water Elevator,

N^o 4,810.

Patented Oct. 10, 1846.



UNITED STATES PATENT OFFICE.

HARVEY W. SABIN, OF RUSHVILLE, NEW YORK.

WINDLASS.

Specification of Letters Patent No. 4,810, dated October 10, 1846.

To all whom it may concern:

Be it known that I, HARVEY W. SABIN, of Rushville, in the county of Ontario and State of New York, have invented new and useful Improvements in Machinery for Drawing Water from Wells and Raising Heavy Weights, and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an isometrical view of the machinery with the sides of the curb removed; Fig. 2, is a vertical section of the same.

The same letters indicate like parts in all the figures.

The nature of my invention consists in raising weights and in raising and discharging water from a well by two alternating buckets, and regulating the height to which they are raised by a double windlass, or windlass in two parts which can be clutched together so as to allow the weights to balance each other for any distance required. In raising water by this method it is not necessary to touch the buckets with the hand, the object being accomplished by a crank, endless cord, or any of the usual ways.

The construction of one modification (as shown in the drawings) is as follows: A well house or curb (*a*) is formed over a well, and near the top thereof a horizontal double windlass (*b*) is placed, or a windlass in two parts one of which can be coupled to or disconnected from the other at pleasure by any ordinary clutch as shown at (*s*.) On said windlass two cords (*c*) are wound, one on each part but in contrary directions so that when one cord is wound up by turning the windlass the other shall be unwound; by disconnecting the two windlasses the cords can be so arranged as to raise the buckets attached to the ends thereof to any height and then by connecting them they will balance to any required height; these cords pass up over two pulleys (*d*) at the top of the house or double derrick, and thence descend down into the

well or to the ground; their lower ends being attached to the buckets (*e*). These buckets are similarly formed to those now in use but to their sides there are fastened guard pieces of iron or wood to prevent their striking the sides when used in wells and also to facilitate pushing back the movable spout to be hereafter described. The bottoms of the buckets may be furnished with valves (*f*) the stems of which project below the bottom so that when the bucket rests on a flat surface its contents will be discharged as shown in Fig. 2; below the pulleys above named an oblong trough or movable spout (*g*) is suspended on arms (*h*) that extend up and are attached to the sides of the house on pivots at (*i*); this spout is as wide as the space occupied by both buckets when suspended and can be swung back by means of the rod (*k*) which has notches on its underside to hitch onto a catch (*l*) in the house and hold back the spout as shown by the dotted lines in Fig. 2.

A hole is made in the center of the front rim of the spout at (*m*), which is opposite a stationary spout (*n*) in front against which it swings to deliver the water through. The bucket ropes pass down through what I denominate a trigger which is a T shaped pin (*o*) the leg of which extends back over the windlass and is jointed to the back of the house; from this in front of its fulcrum a rod (*p*) descends with a hook on the end thereof that hooks around the rod (*k*); thus when the movable spout is drawn back into the position shown by the dotted lines in Fig. 2 and the bucket is full of water it is raised above the movable spout till the bail strikes the trigger and throws off rod (*k*) by raising it and the spout swings forward under the bucket which is then allowed to descend into it and discharge the water through the valve in the bottom into the spout (*g*) and thence through spout (*n*). This occurs at the raising of each bucket which are both alternately discharged into the movable spout. It will be obvious that by means of the double windlass the distance to which the buckets will balance each other in raising can be varied as the water or other material rises or falls.

What I claim as my invention and desire to secure by Letters Patent is—

Arranging the two ropes to wind on the drums or windlasses in opposite directions,
5 when this is combined with one of the drums made to clutch and unclutch for the purpose of regulating the length of the ropes

to suit the depth to which the buckets, &c., are to descend, substantially as described.

HARVEY W. SABIN.

Witnesses:

A. P. BROWN,
CHS. M. KELLER.