C. H. Dunbrack,

Windlass Water Elevator,

No. 31,377. Patented Feb. 12, 1861.

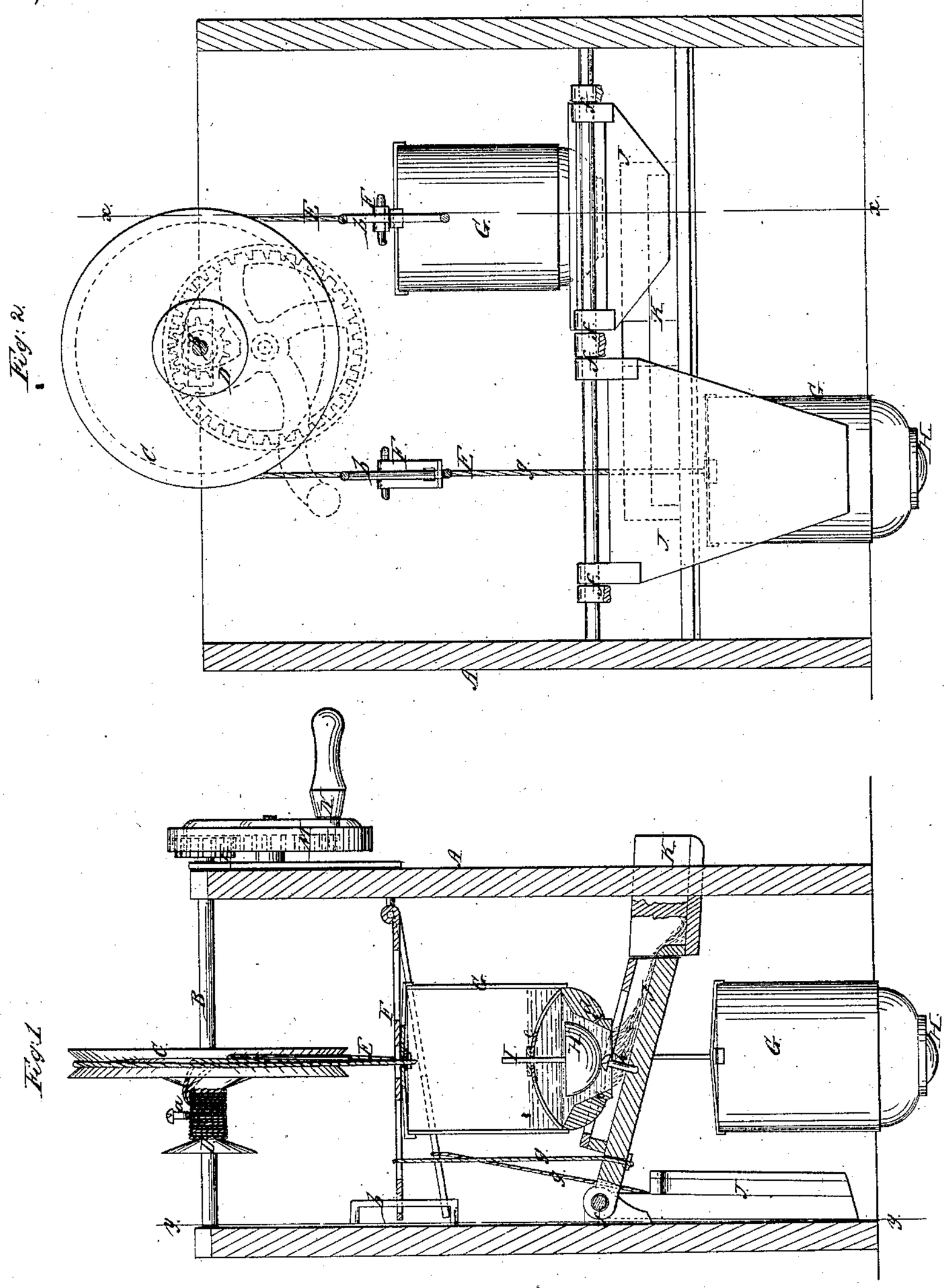

Fig: 2.

Fig: 1.

Witnesses:
J. W. Coombs.
R. S. Spencer.

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UNITED STATES PATENT OFFICE.

C. H. DUNBRACK, OF JACKSONVILLE, ILLINOIS.

WATER-ELEVATOR.

Specification of Letters Patent No. 31,377, dated February 12, 1861.

To all whom it may concern:

Be it known that I, C. H. DUNBRACK, of Jacksonville, in the county of Morgan and State of Illinois, have invented a new and Improved Water-Elevating Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x*, *x*, Fig. 2. Fig. 2 a vertical section of the same, taken in the line *y*, *y*, Fig. 1.

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

The object of this invention is to obtain a simple and efficient machine for elevating water from wells for domestic purposes, one that may be manipulated with facility and not liable to get out of repair.

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 of rectangular or other proper form, and B is a shaft which is placed on the upper part of the curb, said shaft having a wheel C, upon it and a small drum D, the latter being adjustable on its shaft B, and secured thereto by a set screw *a*, as shown clearly in Fig. 1. From the wheel C, a rope E passes. This rope extends through the side of the wheel and is wound on or attached to the drum D, as clearly shown in Fig. 1.

The rope E passes through two bars F, F, which are connected at one end by joints to the side of the well-curb. The opposite ends of said bars F are fitted on guides *b*, *b*, attached to the side of the curb, as shown clearly in Fig. 1.

To each end of the rope E there is attached a bucket G. These buckets are each provided with a valve H, of semi-spherical form, said valves opening upward and being provided with stems I, which work in suitable guides *c*. Through the valve-seats *d*, at the bottoms of the buckets G, holes *e*, are made, as shown in Fig. 1.

J, J, are two troughs or spouts which are connected at one end to the curb by joints *f*. These spouts are allowed to rise and fall or work freely on their joints and each spout is connected by a rope or chain *g*, to the bar F, immediately above it. Each spout J, has a screw *h*, in it at such a point that it may strike the valve H, of its bucket G, when the latter is elevated.

K, is a discharge spout which is fitted in the curb A, at the side opposite to that where the spouts J, J, are attached.

To one end of the shaft B, there is attached a pinion L, which gears into the inner toothed periphery of a wheel M, to which a crank N, is secured.

The operation is as follows: By turning the wheel M, the shaft B, is rotated and one bucket G, is elevated while the other is lowered. The rising bucket, which is the filled one, on reaching the bar F, above it, raises said bar and the latter in consequence of being connected by a rope or chain *g*, to the spout J, below it, raises said spout so that it will communicate with the discharge spout K, and the screw *h*, of the spout strikes the valve H, of the bucket above it and the contents of the bucket pass down through spout J, and out through spout K.

From the above description it will be seen that each bucket G, has a spout J, and bar F, in line with the path of its movement. In case of a bucket being left in a partially filled state the water will escape through the holes *e*. By this means the buckets will be kept free from ice in winter, and it will also insure cool fresh water being drawn in summer, as the contents of a previously filled bucket cannot be obtained. The adjustable drum D, enables the rope E, to be very readily lengthened or shortened to suit the depth of water in the well. This is an important feature of the invention, for it completely obviates the difficulty attending the fluctuation in the height of water, which is considerable in some sections of the country.

This invention may be used with but a single bucket, but in this case a weight or counterpoise should be used at one end of the rope. When the contents of the upper bucket are discharged the movement of wheel C, is reversed and the empty bucket descends to be filled, while the filled one rises to be emptied.

I do not claim the employment or use of valvular buckets for they have been pre-

viously used, nor do I claim a swinging trough separately; but

I do claim as new and desire to secure by Letters Patent:

The adjustable drum D, arranged with the permanent wheel C, substantially as shown to admit of the facile adjustment of the rope E, to suit the height of the water in the well.

C. H. DUNBRACK.

Witnesses:
WM. B. RAPP,
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