J. F. LONG.

WATER ELEVATOR.

No. 185,685. Patented Dec. 26, 1876.

Fig. 1.

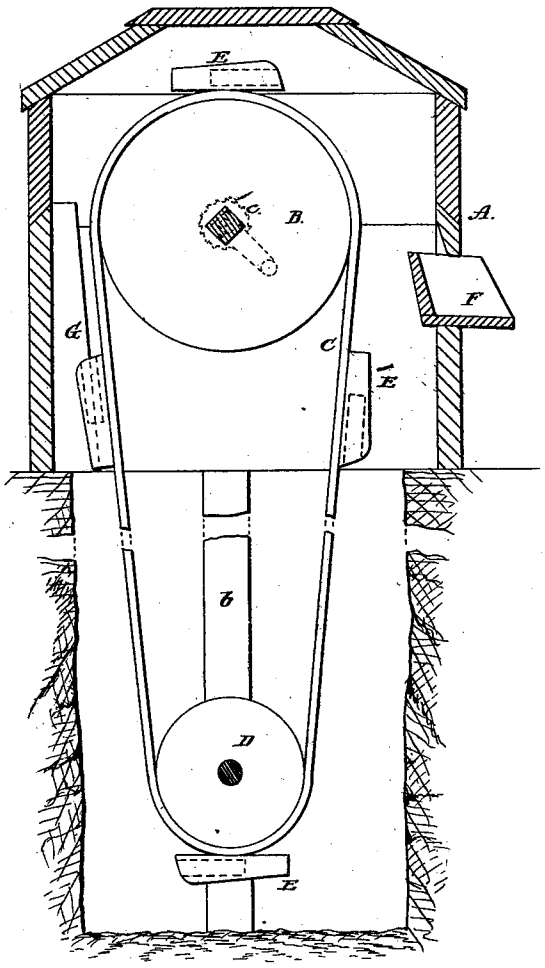
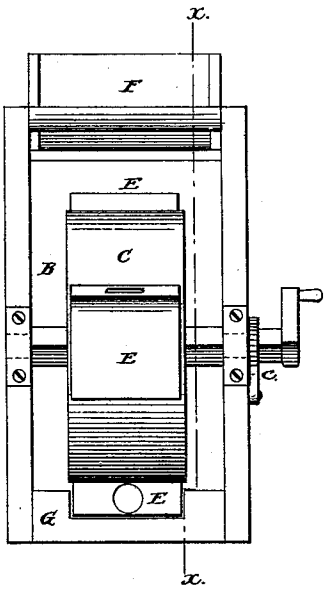


Fig. 2.



WITNESSES:

Geo. H. Graham.

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INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN F. LONG, OF BRIDGEWATER, VIRGINIA.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **185,685**, dated December 26, 1876; application filed November 18, 1876.

To all whom it may concern:

Be it known that I, JOHN F. LONG, of Bridgewater, Rockingham county, Virginia, have invented a new and Improved Water-Elevator, of which the following is a specification:

Figure 1 is a vertical section on line *x x*, Fig. 2; and Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

My invention consists in the arrangement of two pulleys, one placed in a curb over a well, and the other at the bottom of the well, over which runs an endless belt carrying buckets that dip up water and deliver it to the spout in the curb.

The object of my invention is to provide a simple and inexpensive elevator that may be used in elevating water from wells and cisterns.

Referring to the drawing, A is the curb that sets over the well, and is provided with the pulley B that is supported by the shaft *a*, which is journaled in the sides of the curb. Two vertical supports, *b*, are attached to the sides of the curb and extend to the bottom of the well. D is a pulley placed near the bottom of the well upon a shaft that is journaled in the supports *b*. C is an endless belt of cotton ducking or webbing that runs over the pulleys B and D, and is provided with buckets E, which consist of blocks of wood bored, as indicated in dotted lines, and attached to the belt C by means of nails or screws. The buckets are provided with a guide, G, which prevents them from swaying as they are drawn up by the rotation of the pulley B. F is a spout arranged in the side of the curb to receive the water discharged from the buckets and deliver it outside of the curb. The shaft *a* is provided with a ratchet and pawl, *c*, which prevents the buckets from running backward.

When the belt C is wide and the buckets are large, and the quantity of water raised is such that it is difficult to raise it by means of the crank on the shaft *a*, back gearing may be employed to increase the leverage, so that the same power may be made to raise an increased quantity of water.

The advantages claimed for my invention are its simplicity and effectiveness and the cheapness with which it may be manufactured.

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

The combination of the curb A, pulleys B and D, support *b*, belt C, buckets E, guide G, and spout F, substantially as and for the purpose herein shown and described.

JOHN F. LONG.

Witnesses:

G. W. BEVLIN,

S. M. DICKSON.