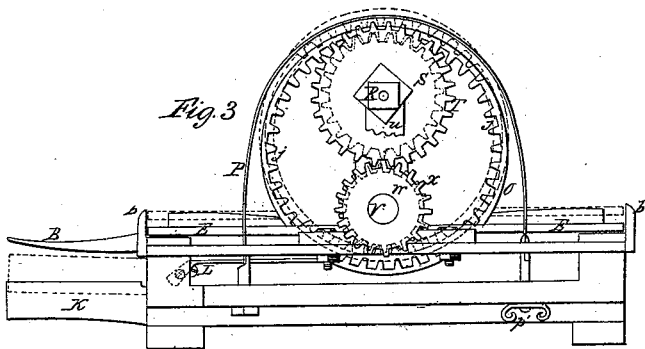
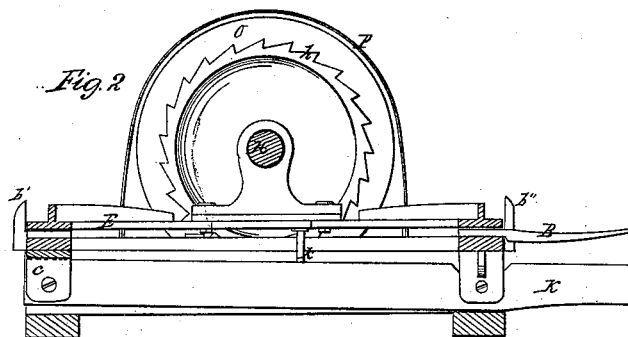
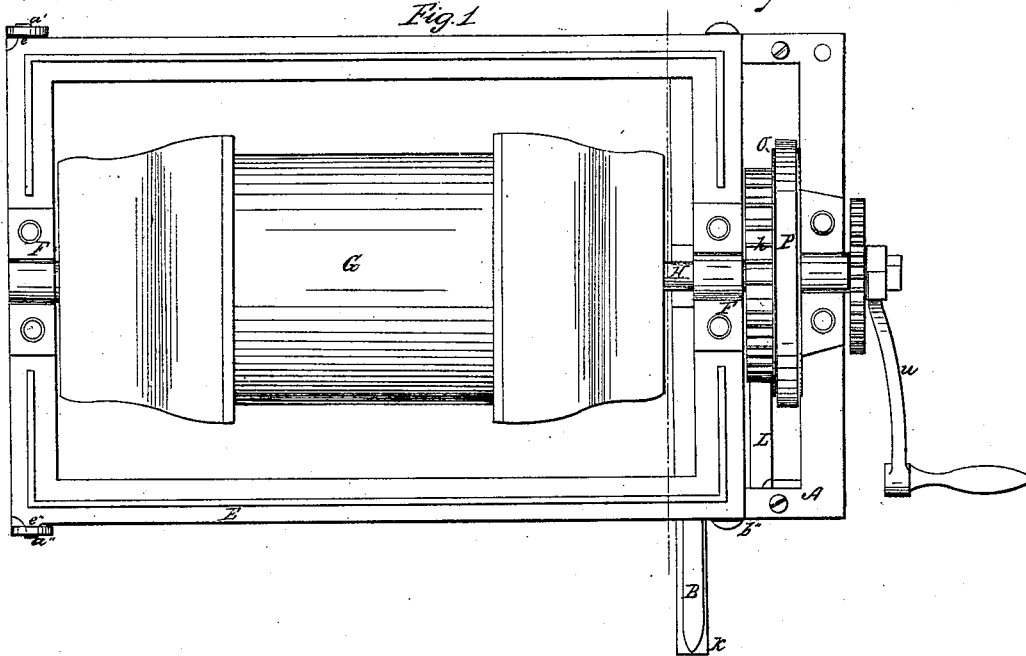


G. Race,

Windlass Water Elevator,

N^o 53676.

Patented Apr. 3, 1866.



Witnesses;
John H. Cunningham
John D. Bloor

Inventor;
George Race

UNITED STATES PATENT OFFICE.

GEORGE RACE, OF NORWICH, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 53,676, dated April , 1866.

To all whom it may concern:

Be it known that I, GEORGE RACE, of Norwich, Chenango county, New York, have invented a new and Improved Water-Elevator; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Upon the curb of a well constructed in the ordinary manner I place a frame, A, having eyes *a' a''* at the one end and lugs *b' b''* at the other, and extending a short distance beyond the lugs which are at the edge of the curb, for the purpose of allowing room outside of the curb for the appliances for operating the drum. On one side of the frame A, I cast the hand-rest B, and on the other or opposite side I cast the lug C for the purpose of attaching the brake-bar. I then make a supplemental frame, E, having projections *e' e''*, which fit into the eyes *a' a''* and form a hinge. Upon this frame E, I place the bearings F F', in which the shaft of the drum can revolve. I construct the drum G in the ordinary manner, and on its shaft H, I attach a wheel, O, having on its inner side a ratchet, as shown at *h*, and on the outer side are cogs arranged within the disk, as shown at *j*. Under the hand-rest B, I place the brake K, having a bolt or other projection, *k*, on its upper side, which comes in contact with the frame E, which at this side has free motion. I then attach at any convenient point a spring-clutch, L, the office of which is to hold into the ratchet *h*. Over the wheel O, I pass a strap, P, which may be fastened to the frame at any suitable point, and which serves at a proper time as a brake for the wheel O, and which strap can be regulated by means of the thumb-screw *p*. I then make a shaft, R, to which I rigidly attach the cog-wheels S T and also the crank U. Immediately under the shaft R, I place another shaft, V, to which is fastened the cog-wheels W and X.

From the foregoing description the method of operating my elevator can be readily under-

stood. For example, when the crank U is turned the cog-wheel T connects with the cogs *j* of the wheel O, and in this manner the windlass or drum is operated, and when it is necessary to lower the bucket the hand can be placed upon the rest B in such manner as to grasp with ease the lever K and cause it to approximate the rest B, which presses the bolt *k*, as seen at Fig. 2, against the movable frame E, which causes said frame to be elevated, as shown in red lines in Fig. 3, and which at the same time releases the spring-clutch L from the ratchet *h*, and at the same time throws the wheel O or its cogs *j* out of gear with the wheel T, and, carrying the said wheel upward, forces it into gear with pinions on shaft V, which pinions, being smaller and matching into the cog-wheels of large size on the shaft R, will give it a more rapid motion; and it will be seen that by rotating the shaft R in the same direction as when elevating the water the bucket is rapidly lowered, while the periphery of the wheel O is brought in contact with strap P as firmly as may be required, all of which is shown in Fig. 3.

Having thus described my invention, what I claim, and for which I desire to procure Letters Patent of the United States, is—

1. A water-elevator having a supplementary frame, operated and constructed as shown and described.

2. In combination with the supplemental frame, the system of gearing, as shown, and so arranged and operated that the bucket can be lowered rapidly by a forward movement of the crank.

3. In combination with the supplemental frame, the brake-lever, the hand-rest, the spring-pawl, and the adjustable friction-band, all constructed and arranged as described, and for the purposes set forth.

GEORGE RACE.

Witnesses:

JOHN S. HOLLINGSHEAD,
JOHN D. BLOOR.