H. B. Barber,

Windlass Water Elevator,

No. 27,027, Patented Jan. 31, 1860.

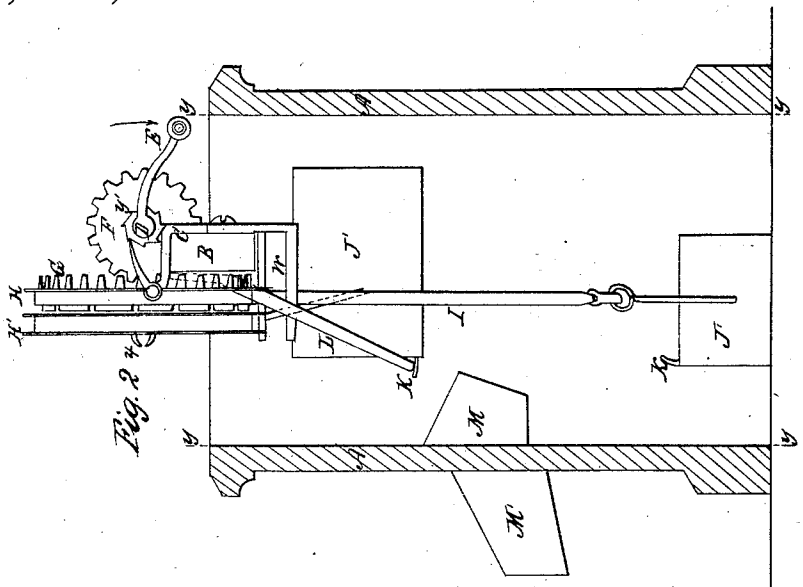


Fig. 2

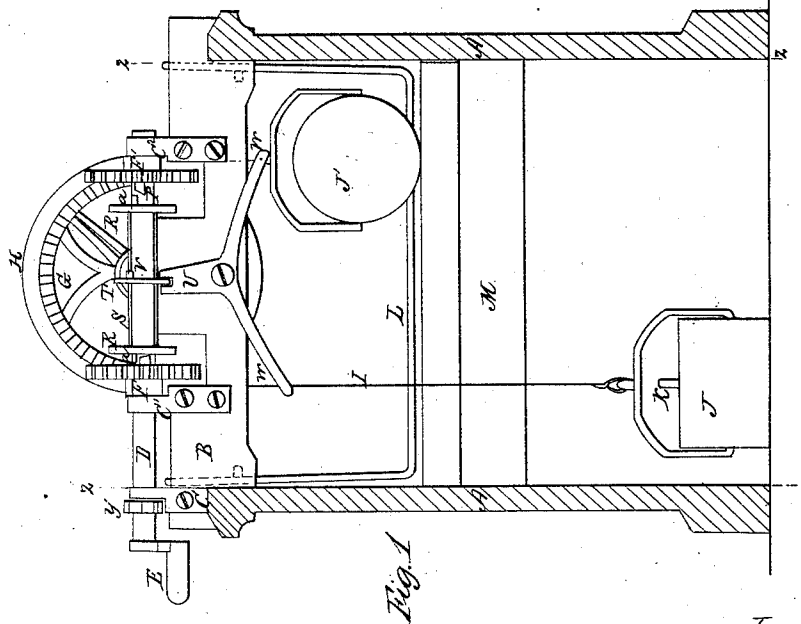


Fig. 1

Witnesses;
Wm. L. Yeatman
S. H. Lawrence

Inventor:
Henry B. Barber
By his Attys. J. Dennis

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UNITED STATES PATENT OFFICE.

HENRY B. BARBER, OF SCOTT, NEW YORK.

DEVICE FOR RAISING WATER.

Specification of Letters Patent No. 27,027, dated January 31, 1860.

To all whom it may concern:

Be it known that I, HENRY B. BARBER, of Scott, in the county of Cortland, and State of New York, have invented a new, useful, and Improved Apparatus for Drawing Water from Wells; and I do hereby declare that the same is described and represented in the following specifications and drawings.

To enable others skilled in the art to make and use invention I will proceed to describe its construction and operation referring to the drawings in which the same letters indicate like parts in each of the figures.

Figure 1, is an elevation of one side of my apparatus the side of the curb between the lines Z Z being omitted. Fig. 2, is an elevation of one end, the curb being omitted between the lines Y, Y.

The nature of my invention consists in improvements in devices for raising water which will be described in the following specification.

In the accompanying drawings, A, A, is the curb which may be made in the common form or otherwise and placed over or around the well, and provided with a bar B, across the top to support the machinery for raising and lowering the buckets which draw the water.

C, C′, C², are stands fastened to the bar B, to support the shaft D, which is provided with a crank E, and fitted to turn freely in the stands and may have a gear, or pulley applied to it to turn it by wind, animal or other power as it is turned always in the same direction indicated by the arrow in Fig. 2.

F, F′ are two gears fitted to turn freely on the shaft D, and drive the gear G, which turns on a stud fastened to the bar B, for that purpose. This gear G, carries two grooved pulleys H, H′ for the metal straps I, I, to wind on; which straps carry the buckets J, J′, to draw the water from the well. Each of these buckets is provided with a hook K, which catches under the swinging bar L, every time the bucket is drawn up, so as to turn the bucket and empty the water into the trough M, fastened in the curb A, to receive the water which runs from the buckets and conduct it to the spout M′, which may have a bucket or trough placed under it to receive the water.

The swinging bar L, is hung in two staples in the bar B, so that as the buckets are drawn against it, it will swing toward or over the trough, so as to cause the water emptied from the buckets to run into the trough M.

In order to turn the pulleys H, H′, alternately in each direction, the gears F, F′, are alternately locked to, and released from the shaft D, by means of the clutch pins P, P, in the wheels F, F′, and the pins *a a*, in the disks R, R, which disks are connected together by the semicircular bar S, which partly surrounds the shaft D, and has the disk T, fastened to it, fitted to a score in the upper arm of the lever U, so that as the lever is vibrated the disks R, R, are traversed between the gears F, F′, so as to make them turn with the shaft alternately; the disks being arranged to traverse on the shaft and are prevented from turning on the shaft by the pin V, acting against the edge of the semicircular bar S.

The lever U, vibrates on a screw in the bar B, and is provided with two lower arms W, W, which spread off like an inverted Y, and are bent under the bar B, so as to come over the bails of the buckets J, J′, so that when one of the buckets is hoisted and emptied into the trough M, the bail of the bucket raises the arm of the lever, and traverses the disks R, R, on clutch from the gear F, to release it, and to the gear F′, to fasten or lock it to the shaft, so as to turn the gear G, in the opposite direction and the pulleys H, H′, also, to lower the bucket just emptied and draw up the full one, the bail of which when it is emptied will raise the opposite arm W, and traverse the clutch from the gear F′ toward the gear F, to reverse the motion of the gear G, and pulleys H, H′.

In order to insure the traverse of the clutch from the gear released, so as to lock the opposite one, the ends of the pins P, P, are beveled off so that when the gear ceases to be turned by the clutch, the beveled or inclined end of the pin will push the clutch toward the opposite wheel so as to insure it to lock and turn it.

To vary the working length of the straps I, I′, and adapt them to the height of the water in the well, the pulleys are made to separate, by unscrewing the nut *x*, that holds them on the stud on which they turn, and the edge of the pulley H, has scores in its edge which edge passes into the inside of the

pulley H′, which has a pin in it to catch into one of said scores, so that when the pulleys are pressed together they are locked to one another; but when separated either of them may be turned while the other is held, so as to let out or take up the working length of the straps, as may be required to suit the height of the water in the well.

To prevent the shaft from being turned in the wrong direction the ratchet wheel Y′ is fastened to it and provided with a pawl so as to prevent it from being turned backward.

I believe I have described and represented my inproved apparatus for drawing water, so as to enable any person skilled in the art to make and use it. I will now state what I desire to secure by Letters Patent.

I claim—

The gears in combination with the clutch, two armed lever and beveled or cam shaped pins P, P, substantially as described for the purpose of automatically changing the motion of the pulleys H, H′, when the buckets are emptied; the whole being constructed to operate substantially as described for the purposes set forth.

HENRY B. BARBER.

Witnesses:
A. W. CLARKE,
W. H. CLARKE.