

J. N. DENNISON.
PORTABLE WATER-WORKS.

No. 170,532.

Patented Nov. 30, 1875.

Fig 1

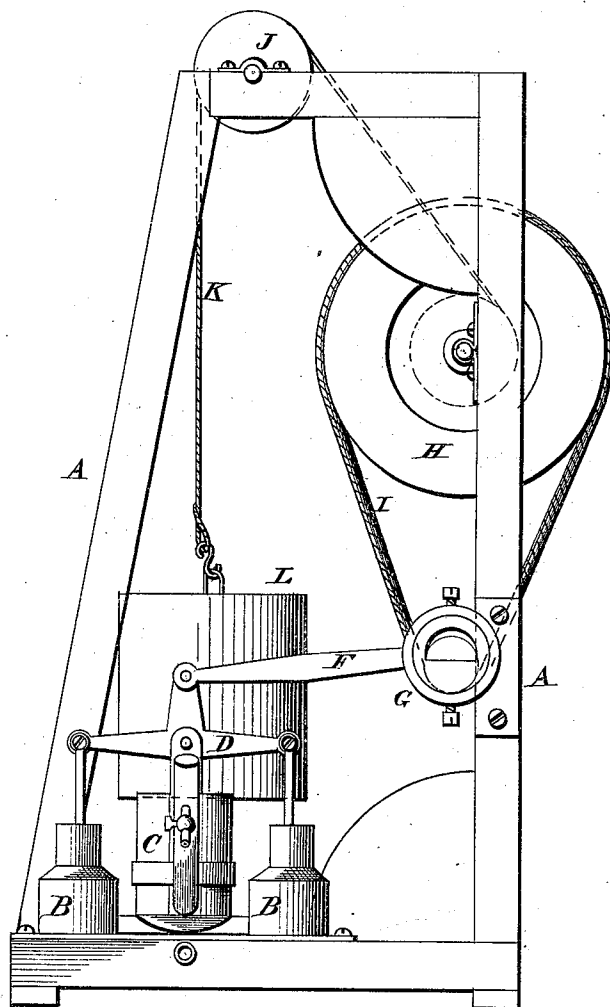
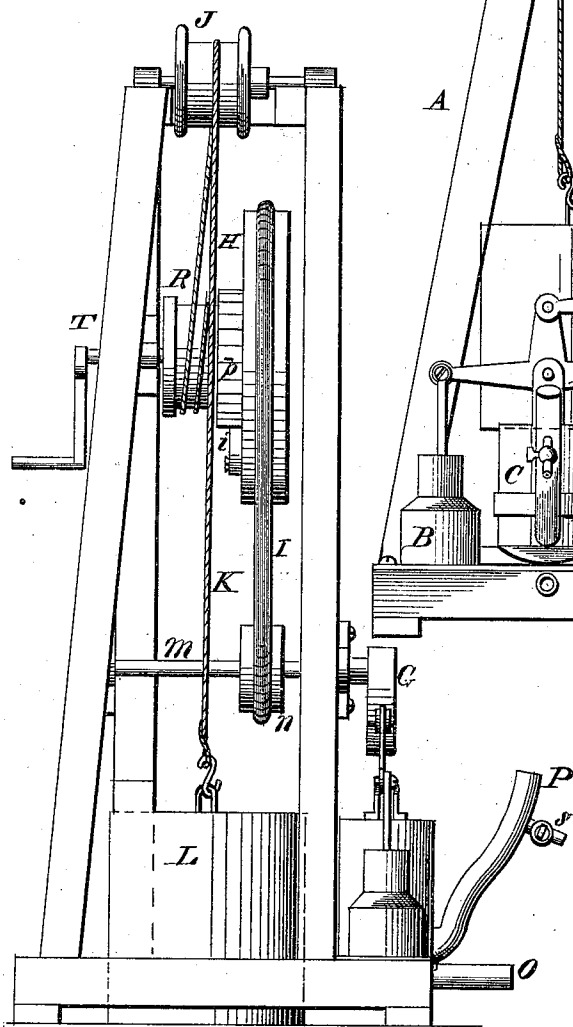


Fig 2



WITNESSES
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JOHN N. DENNISON, OF NEWARK, N. J., ASSIGNOR OF THREE-FOURTHS
HIS RIGHT TO J. DENNISON, R. H. JOHNSON, AND WILLIAM W.
RUSSELL.

IMPROVEMENT IN PORTABLE WATER-WORKS.

Specification forming part of Letters Patent No. **170,532**, dated November 30, 1875; application filed
October 9, 1875.

To all whom it may concern:

Be it known that I, JOHN N. DENNISON, of Newark, in the county of Essex and in the State of New Jersey, have invented certain new and useful Improvements in Portable Water Works; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the combination and arrangement of a spring or weight power, a pump or pumps, and an induction and eduction pipe, with suitable stop-cock for supplying water from wells and cisterns, &c., as will be hereinafter described.

In the accompanying drawings, making part of this specification, Figure 1 represents a side, and Fig. 2 an edge, view of my machine.

In the figures, A represents a frame of suitable dimensions, upon the bottom of which are erected two pumps, B B. These pumps are of any ordinary construction, and between them is located a water tank or chamber, C. The pump-rods are operated by an oscillating lever, D, said rods being connected to the ends of the lever. This lever D has an arm, *e*, projecting above it, to which a cam or crank rod, F, is connected. The rod F is operated by a cam, G, upon a shaft, *m*. The shaft *m* has its bearings in the frame A, and has secured upon it a pulley, *n*. T represents a shaft, which also has its bearings in the frame A, and which is provided with a band-wheel, H, and a windlass-wheel, R. The band-wheel H is free upon the shaft, unless stationed by a pawl and ratchet wheel, the pawl *i* being secured to the band-wheel, and the ratchet-wheel *p* to the windlass-wheel. K represents a cord, which passes over a pulley, J, and which has one end connected to the windlass R. To the other end of the cord is connected a weight, which is made sufficiently heavy to run the pumps with ease. A suitable band connects the two wheels H and *n*.

In winding the weight L up the wheel H is stationary, but the moment it is wound up, the pawl, catching into the ratchet-wheel, connects the working parts together, and the weight through wheels H and *n*, band I, rod F, and lever D, causes the pumps to work.

O represents a pipe, which leads to the well or cistern from chamber C, and P represents a pipe, which leads from said chamber to the point where it is designed to convey the water. S represents a stop-cock in pipe P, for the purpose of cutting off the flow of water, when desirable.

Of course, suitable valves of any desired construction will be used in the pumps and in chamber C, so that a constant stream of water will be maintained, both into and out of said chamber C, when the pumps are working.

It will be readily seen that, so long as the stop-cock S is allowed to remain open, and the weight allowed to operate the pumps, water will flow until the weight is run down. It will also be seen that the weight may be stopped at any instant by turning the stop-cock, so as to cut off the flow of water. The stop-cock thus answers to stop the pumps and weight, as well as to stop the flow of water.

I do not confine myself to this particular construction of wheels and levers, as I may use gearing and a different arrangement of levers; nor do I confine myself to any particular construction of pumps.

This frame may be placed near the bottom of the well or cistern, and force the water to any desired point without danger of being stopped by freezing.

I do not claim the use of weights for running pumps, nor any peculiar construction of pumps, or weight, or spring machinery connected therewith; but

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

In combination with a pump or pumps, and a spring or weight power, a chamber, connected to the pumps, which is provided with an induction and an eduction pipe, the eduction-pipe being provided with a regulating stop-cock, substantially as herein set forth, for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of October, 1875.

J. N. DENNISON.

Witnesses:

J. M. MASON,

C. M. ALEXANDER.