(No Model.)

G. R. MOORE, Jr.

VALVE MECHANISM FOR WATER CLOSET CISTERNS.

No. 329,934. Patented Nov. 10, 1885.

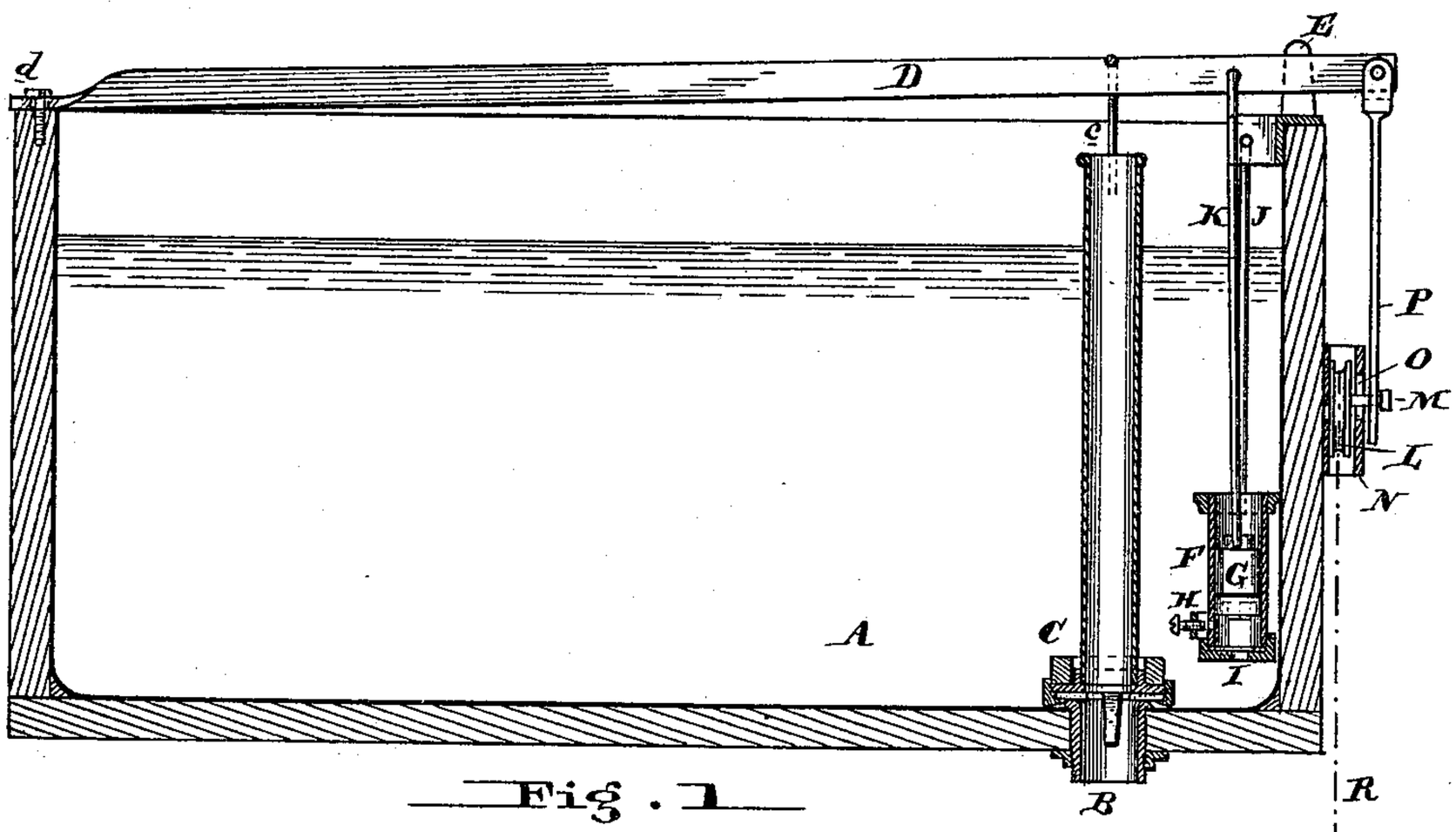

Fig. 1

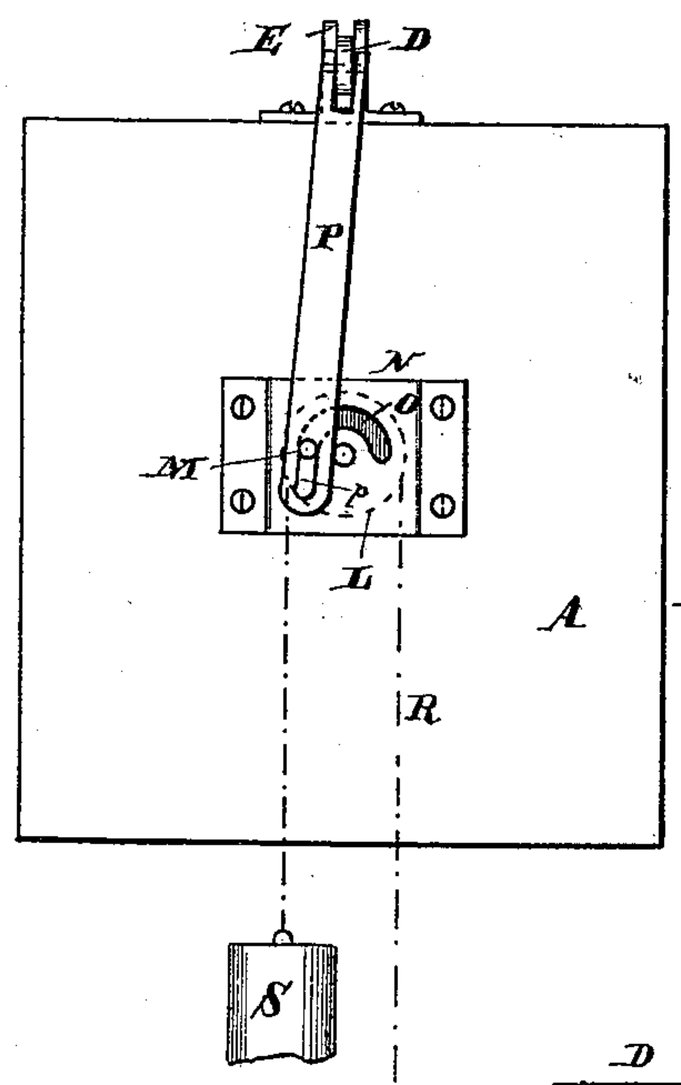

Fig. 2

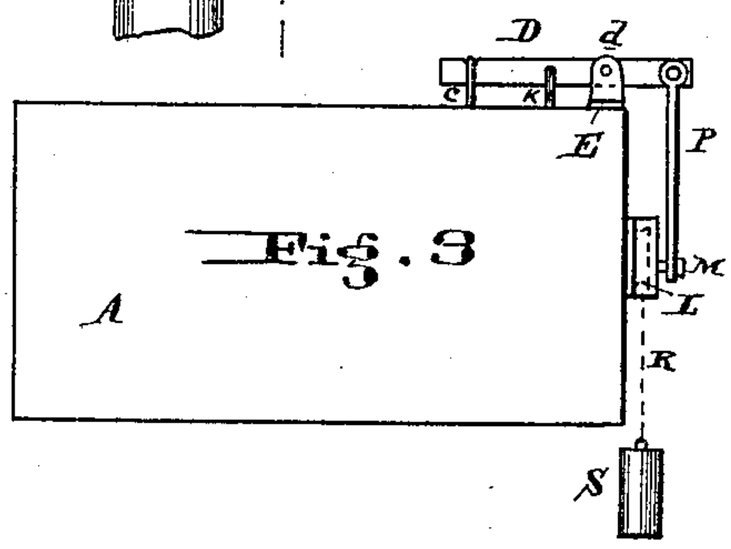

Fig. 3

Attest

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VALVE MECHANISM FOR WATER-CLOSET CISTERNS.

SPECIFICATION forming part of Letters Patent No. 329,934, dated November 10, 1885.

Application filed August 1, 1885. Serial No. 173,277. (No model.)

To all whom it may concern:

Be it known that I, GEO. RODNEY MOORE, Jr., a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Valve Mechanisms for Water-Closet Cisterns, of which the following is a specification.

The object of my invention is to provide a suitable and inexpensive mechanism for controlling the movements of the cistern-valve automatically, so that all the desired wash or flush of the closet shall be obtained at each time of its use without any waste of water. I use a wheel combined with a lever for lifting the valve. The wheel is operated by a chain fastened at one point on its periphery and its two ends hanging down. One is to be connected with the seat of the closet or to be pulled by hand, and the other is connected with a weight, which brings the wheel back to its resting place after being half-revolved by the closet-seat or by hand. At each half-revolution of the wheel, either forward or back, the valve is opened, because the lifting-lever is attached by a gudgeon from its side at a predetermined distance from its center of motion.

The invention will be readily understood by the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical transverse section of an ordinary cistern with its valve so connected as to be operated by my invention. Fig. 2 is an end view of the same, and Fig. 3 is a small side view of an optional top lever and its connections.

A is a common water-closet cistern, to be supplied with water in the usual way. B is the pipe-connection of the outlet from the cistern to the water-closet or other places of discharge. C is the cistern-valve. D is a horizontal lever jointed loosely at *d*, and extending to the front through the guides E, and jointed to the vertical lever P. F is a pump-cylinder, and G is the plunger. H is a regulating-screw, controlling the leakage from the pump-cylinder, by which the valve-closing is regulated. I is a valve at the bottom of the cylinder for feeding the same in the usual manner. J is the hanger which holds the cylinder in place. K is the piston-rod. L is a wheel hung upon a central pin. M is a gudgeon extending out from the side of the wheel and coupling it with the vertical lever P. N is a plate inclosing the wheel and holding it firmly to the cistern. O is an open space through the plate to allow the gudgeon M to move freely. P is the vertical lever connecting the wheel through D to the valve C. R is a pulley-chain. S is a counterbalance-weight.

The operation is as follows: When the chain R is drawn down, so as to turn the wheel L and carry up the weight S, the lever P is first carried up for half the distance in the course of the wheel's half-revolution, and then lowered down again at the right as low as it was at the start, and thus while the seat of the closet is used or the chain is held down the valve, after being opened, is allowed to close and remain closed until the seat is relieved or the chain released, when the counterbalance-weight S turns the wheel back again to its first position, and in doing so opens the valve in like manner as it was done before. To open the valve by a reverse motion of the lever P requires only a change in the position of the opening O in the plate N, as seen in the optional Fig. 3.

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

In combination, cistern A, the wheel L, with pulley-chain R, weight S, front plate, N, with aperture O, side gudgeon, M, levers P and D, and valve C, substantially as and for the purpose herein set forth.

GEO. R. MOORE, JR.

Witnesses:
HARRY E. GREAVES,
CHARLES W. SPARHAWK.