G. W. McKENZIE.

Pump.

No. 216,877. Patented June 24, 1879.

Fig. 1.

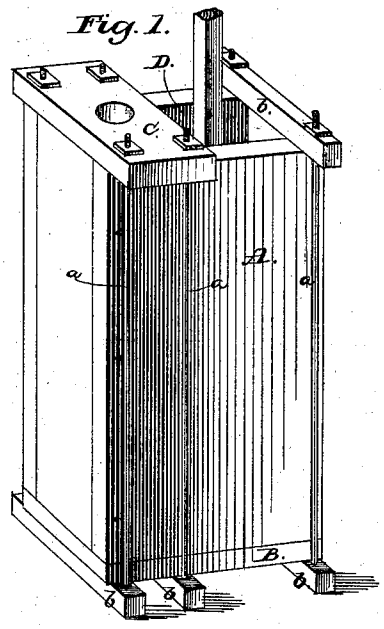


Fig. 2.

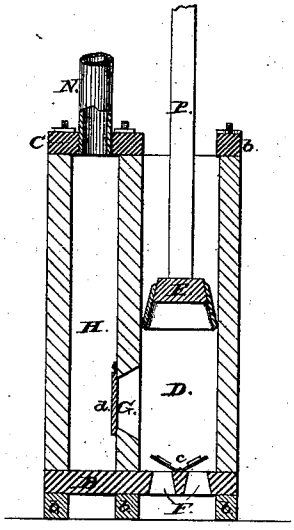


Fig. 3.

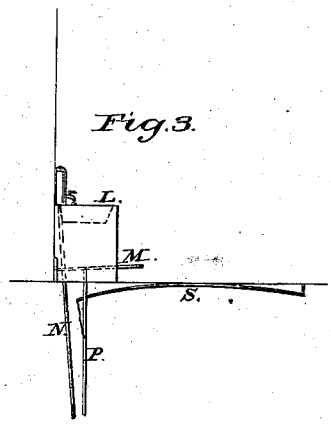


Fig. 4.

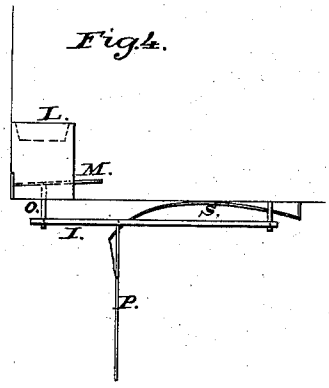
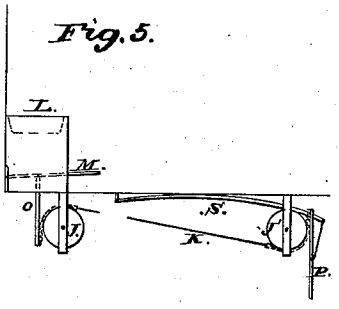


Fig. 5.



Attest:

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UNITED STATES PATENT OFFICE.

GEORGE W. McKENZIE, OF HARRINGTON, MAINE.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **216,877**, dated June 24, 1879; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, GEO. W. McKENZIE, of Harrington, in the county of Washington and State of Maine, have invented a new and Improved Pump for Cisterns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a vertical section; and Figs. 3, 4, and 5 are different forms of levers for operating said pump.

I make the pump case or cylinder, A, Fig. 1, preferably, in rectangular form, of plank or boards firmly bolted together. The bottom B and top C are held firmly in place by the screw-rods *a*, which pass through the projecting cross-pieces *b* and the top C.

In Fig. 2, D is the cylinder; E, the piston; F, the induction-port, and G the discharge-port. The ports F and G each consist of two narrow openings, with valves *c* and *d*, the valve *d* being hinged vertically.

H is the discharge-chamber, with which the discharge-pipe N is connected.

In Fig. 3, L is the sink; M, the treadle or foot-lever, the inner end of which is pivoted to the base-board beneath the sink, and the outer end projects several inches beyond the front of sink, and works up and down in a slot therein.

P is the piston-rod, which passes through the floor and is connected with the treadle M. S is a spring, which may be of any shape or material, secured beneath the floor, and one end of which is attached to the piston-rod.

When it is required to place the pump several feet away from the sink the lever I, Fig. 4, may be added, and connected to the treadle M by the link *o*, passing through the floor.

The pump may be placed any distance from the sink by the use of the pulleys J and J′, Fig. 5, connected by the wire K, which passes over the pulley J and under J′, one end being attached to the link *o*, and the other to the piston-rod.

The operation of the pump, as thus described, is as follows: The foot is placed on the lever M and pressure applied, when the piston E descends, the pressure of water closing the induction-port F and opening the discharge-port G, allowing the water to escape into the chamber H and up through the discharge-pipe N. On relieving pressure of foot from lever, the piston is raised by the action of the spring S, port G closes and port F opens, allowing a new supply to be drawn into the cylinder.

It is evident the above-described pump is particularly adapted to cisterns; but I do not confine the invention to that use, for it may be used for any purpose for which ordinary pumps are used.

I am aware that the general principle on which this pump works is not new. Therefore I confine my invention to the particular construction and arrangement of parts as here shown and described.

What I claim as new is—

In a pump, the combination, with a piston-rod, of a foot-lever to depress and a spring attached to the piston-rod adapted to retract it, as shown and described.

GEORGE W. McKENZIE.

Witnesses:
DANIEL W. DINSMORE,
FRANK H. TUPPER.