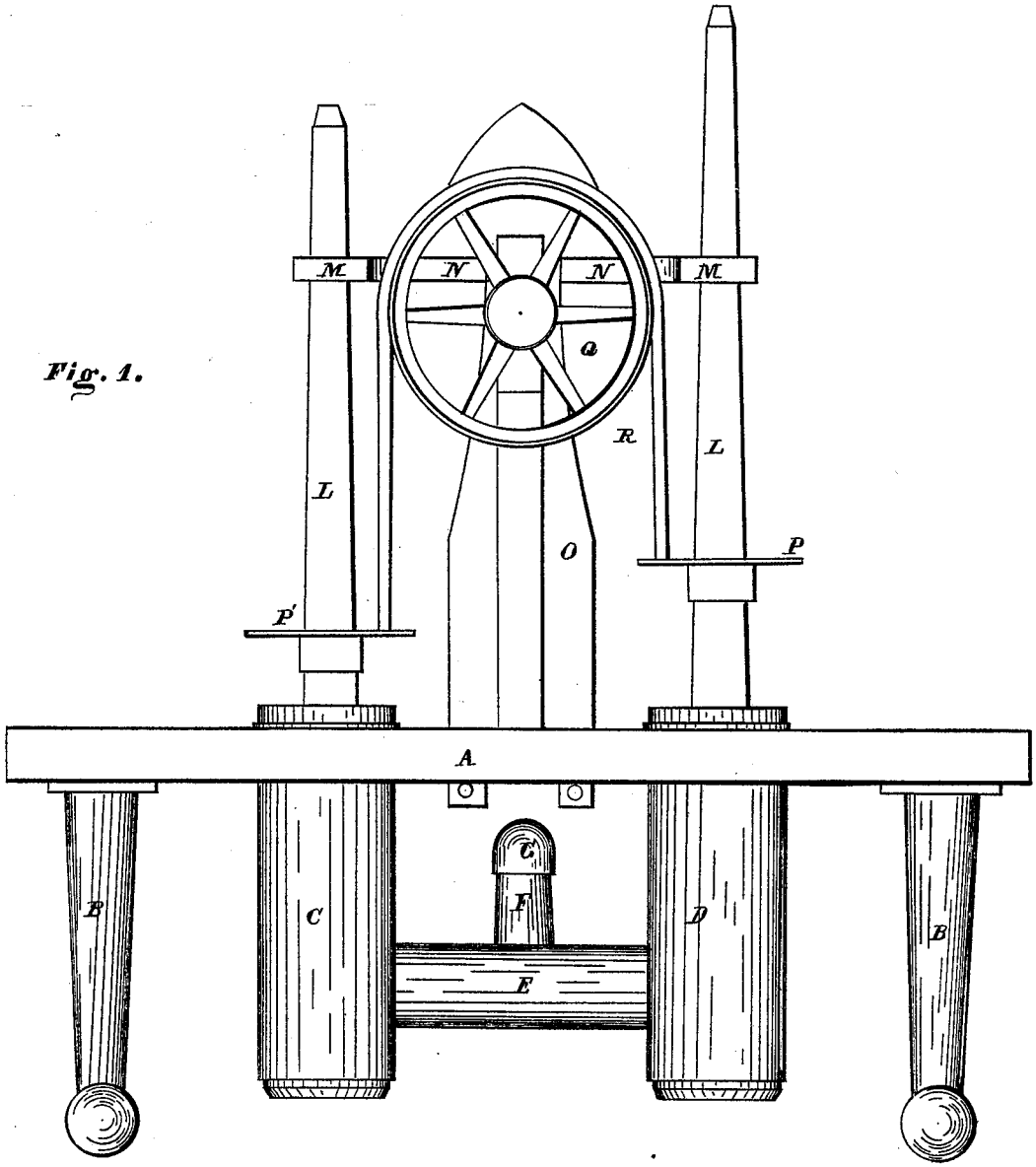
2 Sheets—Sheet 1.

I. G. WHEELER.

PUMP.

No. 182,876. Patented Oct. 3, 1876.

Fig. 1.



Witnesses.
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2 Sheets—Sheet 2

I. G. WHEELER.

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Fig. 2.

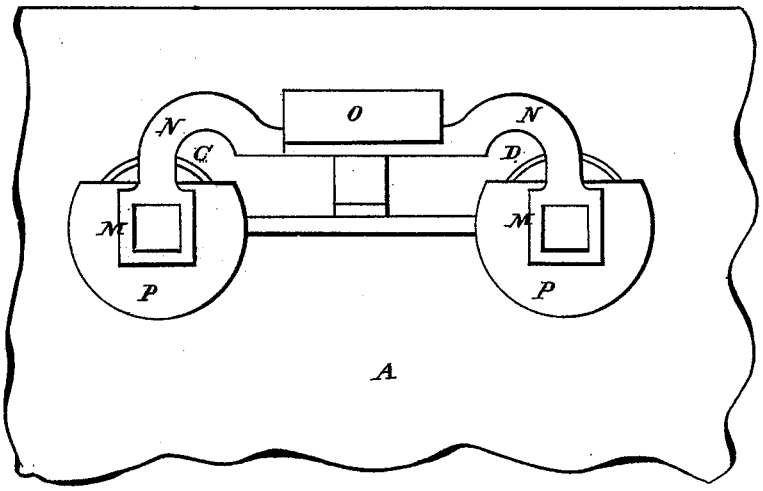


Fig. 3.

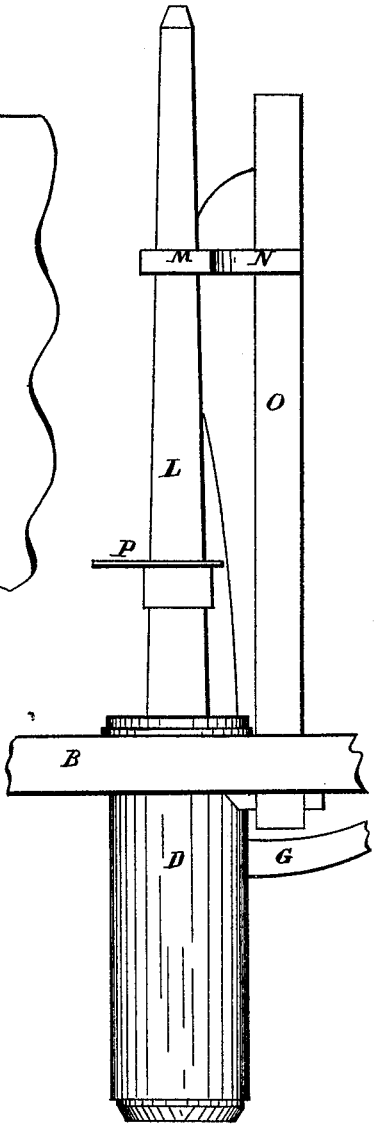
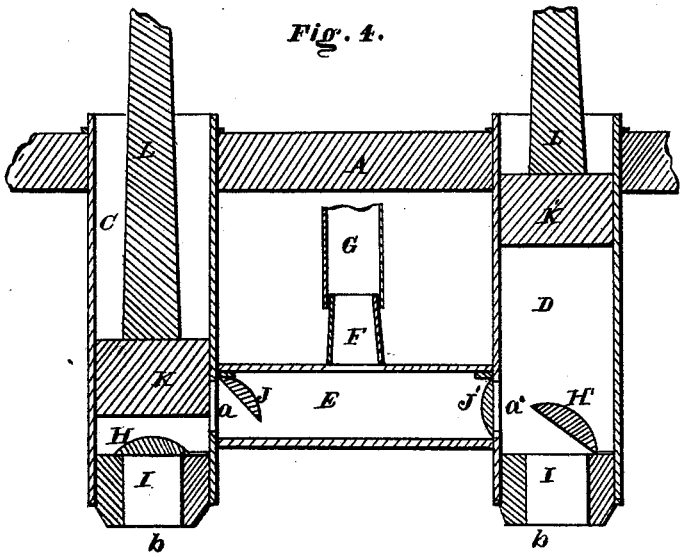


Fig. 4.



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UNITED STATES PATENT OFFICE.

IRA G. WHEELER, OF CODDINGVILLE, OHIO.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **182,876**, dated October 3, 1876; application filed June 17, 1876.

To all whom it may concern:

Be it known that I, IRA G. WHEELER, of Coddingville, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Water-Engines; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation of the engine. Fig. 2 is a plan view. Fig. 3 is a side elevation. Fig. 4 is a transverse vertical section of a detached section of the engine.

Like letters refer to like parts in the several views.

This invention consists of a pump, the object of which is to provide a simple, inexpensive, and efficient means for the elevation and projection of water for various domestic uses, as, for instance, the washing of windows, the sprinkling of lawns, flower-beds, and for the elevation of water into the upper stories of a dwelling for lavatory purposes, or, in the event of fire, a ready means of supplying water to extinguish the same, the pump being worked by one or more persons by the feet, as hereinafter more fully described.

In the drawing, A represents a platform, mounted upon the legs B. In the platform is arranged and secured a pair of cylinders or pumps, C D, connected to each other by a pipe or main, E, from which projects a nozzle, F, to which is attached a hose, G.

In the lower end of each of the cylinders of the pumps is a valve, H H′, opening upward into the cylinders, as will be seen in Fig. 4, and whereby the openings I are closed and opened. At each junction of the pipe E with the cylinders is a valve, J J′, respectively covering the openings *a a′* of the cylinders.

K K′ are the pistons of the pump, and L the rods or stems, the upper ends of which are retained in an erect position by the guides M, terminating the arms N, the arms being secured in position by a standard, O, planted in the platform, as shown in Figs. 1 and 2. To each of the rods or stems L of the pistons is secured a step, P, whereby the pistons are operated, as presently described.

Q is a wheel, secured to the standard referred to. Over said wheel passes a cord or belt, R, the ends of which are, respectively, attached to the steps P, as will be seen in Fig. 1.

The practical operation of the engine is as follows: The machine is placed near a well, cistern, or other water, and in connection therewith by a pair of suction-pipes, attached, respectively, to the cylinders at *b* by any appropriate means. The pumps are worked by the operator, who takes his place upon the steps P, one foot on each, and facing the wheel. For convenience, a bar may be arranged in front of him, above the wheel Q, whereby he may hold, in order to steady himself while operating the pumps, which he does by first lifting one foot, thereby throwing the weight of the body upon one step—as, for instance, on step P′, Fig. 1—which, by his weight, forces downward the piston K into the cylinder C, as shown in Fig. 4, at the same time elevating the piston K′. Now, on lifting the foot from the step P′ and throwing the weight on the step P, the piston K′ will be forced downward and the piston K elevated, and so on alternately. On lifting the feet the pistons are operated, thereby drawing water from the well or other place into the cylinders of the pump. Thus, on the ascent of piston K′ the valve H′ opens, as shown in Fig. 4, allowing the water to follow the piston, filling the cylinder D, which, on the descent of the piston, the water closes the valve H′ and opens the valve J′, thereby forcing water into the pipe E. At the same time the pressure of the water closes the valve J. The water thus forced into the pipe E escapes therefrom through the nozzle F, and which may be directed by the hose G to any particular place or in any special direction. On the ascent of piston K valve H opens, allowing water to follow after the piston. The pressure on the water in the pipe E, caused by the descent of piston K, closes the valve J.

It will be obvious that by this alternating and combined action of the two pumps a stream of water issues from the end of the hose G with more or less force, according to the activity of the pumps, or to the power applied

thereto, and which may be actuated by two persons, one at each pump. To this end, the operators stand on the platform, with one foot on the step, each working a pump, co-operating, but alternately, in respect to each other.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the two pumping-cylinders, connecting-chamber, the piston-rods, connected by the strap working over a pulley and operated by the treadles attached to the rods, all constructed substantially as and for the purpose described.

IRA G. WHEELER.

Witnesses:
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E. W. CROSS.