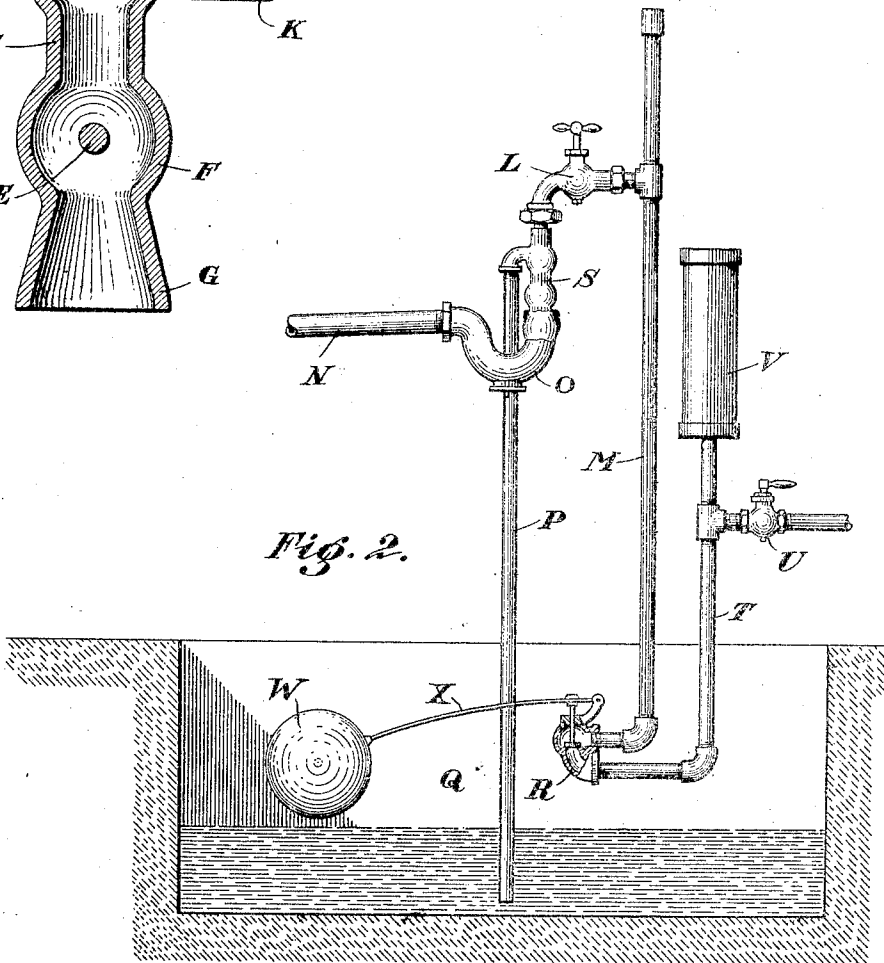
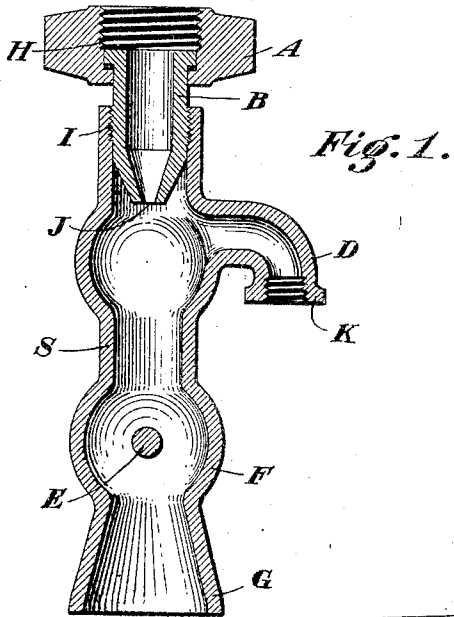


A. ROSENBERG.
EJECTOR.
APPLICATION FILED AUG. 10, 1910.

997,584.

Patented July 11, 1911.



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UNITED STATES PATENT OFFICE.

ALBERT ROSENBERG, OF BALTIMORE, MARYLAND.

EJECTOR.

997,584.

Specification of Letters Patent.

Patented July 11, 1911.

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To all whom it may concern:

Be it known that I, ALBERT ROSENBERG, a citizen of the United States of America, and resident of Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Ejectors, of which the following is a specification.

My invention relates to improvements in ejectors or siphons in which the well known principle of using a jet of water to create a vacuum in order to utilize atmospheric pressure to raise water different from that which operates the jet; and the objects of my invention are,—first to provide a new and useful siphon or vacuum pump; second to provide a detachable siphon or vacuum pump; third to provide an instantaneous starting vacuum pump or siphon; fourth, to provide an economically operated siphon or vacuum pump; fifth to provide a vacuum pump or siphon with a starting device cast integral with said vacuum pump or siphon, seventh, to provide a siphon or vacuum pump, with an offset or enlarged chamber around the starting device; eighth, to provide an automatically operated vacuum pump or siphon with a detachable siphon or ejector. I attain these objects by the mechanism illustrated in the accompanying drawings in which;—

Figure 1 is a vertical section of my detachable siphon or vacuum pump. Fig. 2 is a side elevation of my siphon or vacuum pump attached to a hose bib and ball cock to operate it automatically when the water rises in the well or tank.

Similar letters refer to similar parts throughout the views.

"II" is the coupling for detachably securing the siphon or drainer to any convenient water supply pipe and which swivels around the nipple B which is screwed into the siphon S by the threads I and the force of the water passing through the jet J splashes against the starting bridge E to create a vacuum in the chamber F and flows out at the outlet G and causes a suction at the inlet K carrying the water, dust or dirt through the suction inlet and out with the operating water at G. The starting bridge is preferably cast integral with the siphon casting S and is simply a bar located centrally in the chamber F of the siphon. The chamber F is expanded to a greater diameter than the siphon proper to provide a

greater egress for the water and to avoid impeding the flow of water as much as possible.

Instead of water, any fluid or gas may be used to operate my siphon.

Fig. 2 represents the detachable siphon S, connected to a hose bib L, with its outlet in a trap O connected to a soil pipe N, the suction pipe P reaching to the bottom of a well or tank Q.

The supply valve U is provided with an air chamber V and supplies the water to operate the siphon S by means of the automatic valve R connected by the rod X to its ball W.

The pipe P may be a flexible piece of hose or a metal pipe.

When the water in the tank is high enough to raise the ball W, it lifts the rod X and the valve R starting the water to flow up the pipe M to the siphon S which sucks the water, in the well, up through the pipe P emptying the tank Q thereby causing the ball W to fall and close off the water by the valve R.

Having described my invention, what I claim is:—

1. In an ejector, the combination with a suction chamber provided with an inlet and an inlet for the motive fluid, of a discharge arm at the end of the suction chamber provided with a bar made integral with said discharge arm, substantially as described.

2. In an ejector, the combination with a suction chamber provided with an inlet and an inlet for the motive fluid, of a discharge arm at the end of the suction chamber and means made integral with said discharge arm for obstructing the path of the motive fluid, substantially as described.

3. In an ejector, the combination with a suction chamber provided with an inlet and an inlet nozzle surrounded by the suction chamber, a discharge arm at the end of the suction chamber provided with a starting device made integral with the discharge arm, of a means for adjustably securing the ejector to the motive fluid, substantially as described.

4. In an ejector, the combination with a suction chamber provided with an inlet and an inlet nozzle surrounded by the suction chamber, a discharge arm at the end of the suction chamber provided with a starting device made integral with the discharge arm,

of a means for detachably securing the ejector to the motive fluid, substantially as described.

5 In an ejector, the combination with a suction chamber provided with an inlet and an inlet nozzle surrounded by the suction chamber, a discharge arm provided with a bar made integral with it, and a swivel secured to the inlet nozzle, substantially as described.

10 6. In an ejector, the combination with a suction chamber provided with an inlet and inlet nozzle surrounded by the suction chamber, a discharge arm provided with a bar made integral with said discharge arm, and a swivel nut secured to the inlet nozzle, substantially as described.

15 7. In an ejector, the combination with a suction chamber provided with an inlet and an inlet nozzle for the motive fluid surrounded by the suction chamber, of a discharge arm at the end of the suction chamber provided with an enlargement in a portion of its length and a bar extending within said enlargement across the path of the motive fluid, substantially as described.

20 8. An ejector, comprising a suction chamber and a connection for the motive fluid, an inlet to the suction chamber, and means for obstructing the path of the motive fluid made integral with the ejector, substantially as described.

25 9. In an ejector, the combination with a

suction chamber provided with an inlet, and an inlet nozzle for the motive fluid, of a discharge arm at the end of the suction chamber provided with an enlargement in a portion of its length, and a bar fixed diametrically across the interior of said enlargement, substantially as described.

30 10. In an ejector, the combination with a suction chamber provided with an inlet, and an outlet arm provided with an enlargement in a portion of its length, of a bar diametrically across the interior of said enlargement and made integral with said outlet arm, substantially as described.

35 11. In an ejector, the combination with the suction chamber having an inlet and an inlet nozzle for the motive fluid surrounded by the suction chamber, of a discharge arm at the end of the suction chamber in alignment with the nozzle and provided with an enlargement communicating with the suction chamber through a short portion of the discharge arm and a bar extending diametrically within the enlargement at right angles to the discharge arm, substantially as described.

40 Signed by me at Baltimore, Maryland, this first day of June nineteen hundred and ten.

ALBERT ROSENBERG.

Witnesses:

J. D. ROSENBERG,
JOHN V. FOELLER.