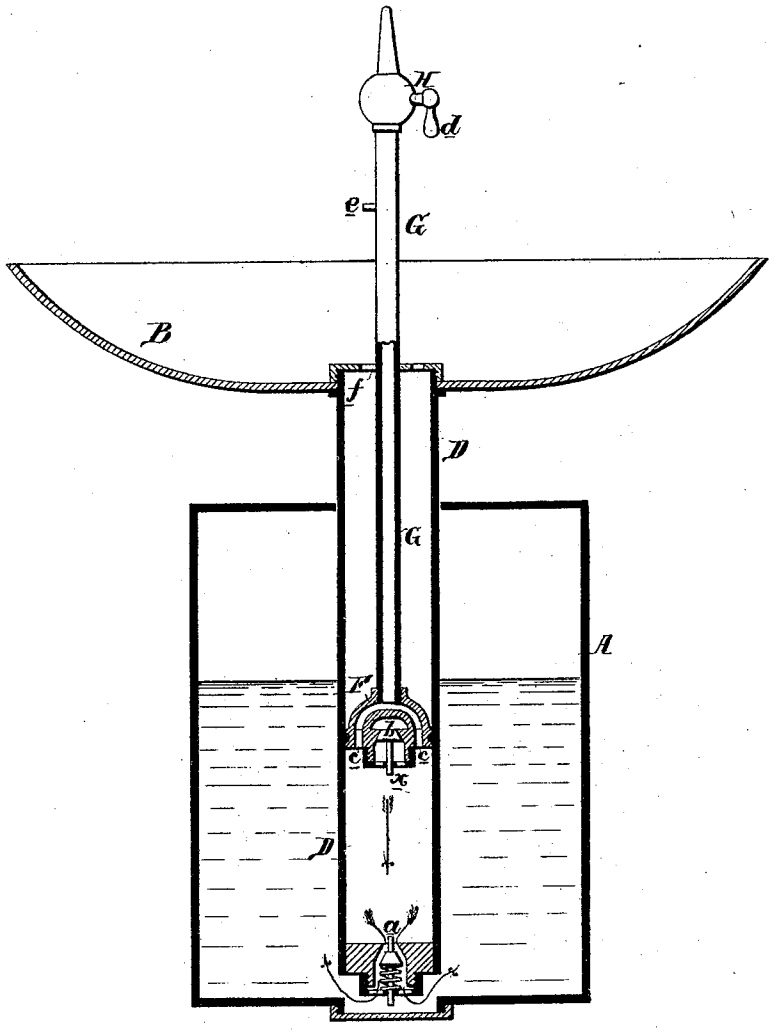
J. J. SINK.

**Combined Fountains and Pumps.**

No. 141,600. Patented August 5, 1873.




Witnesses, Harry Smith
Thomas McIlvaine

Joseph J. Sink
by his Attys
Howson and Son

# UNITED STATES PATENT OFFICE.

JOSEPH J. SINK, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN COMBINED FOUNTAINS AND PUMPS.

Specification forming part of Letters Patent No. **141,600**, dated August 5, 1873; application filed November 16, 1872.

*To all whom it may concern:*

Be it known that I, JOSEPH J. SINK, of Philadelphia, Pennsylvania, have invented an Improved Combined Fountain and Pump, of which the following is a specification:

The object of my invention is to enable the reservoir of a portable fountain to be readily filled with perfumed water or other fluid, and the required pressure to be created and maintained in the said reservoir; and I accomplish this object in the manner and through the medium of the devices illustrated by the figure in the accompanying drawing, which represents a sectional elevation of the complete apparatus.

The reservoir A communicates with the basin B, which receives the falling water through a pump-barrel, D, furnished at its lower end with a valve, *a*, opening downward and retained in its seat by a spring. The piston F of the pump has a valve, *b*, opening downward, and free communication is established between the space below the piston and the interior of the hollow piston-rod G, through a passage or passages, *c*, without forming any communication between the spaces above or below the piston or interfering with the operation of the valve *b*. The nozzle H, through which the perfumed water or other fluid is forced, is situated at the upper end of the hollow piston-rod, through which the fluid passes, as hereafter described, and is furnished with a stop-cock, *d*.

When it is desired to fill the reservoir, the cock *d* is closed, water is poured into the basin B, and the pump is then operated, the valve *a* being closed and the valve *b* opened, when the piston is raised, in order to permit the passage of the water into the space beneath the latter, and this water being forced into the reservoir on the downward stroke of the rod and piston. As soon as the supply of water in the basin is exhausted, which should occur when the reservoir is about two-thirds full, air will be forced into the reservoir, and the pumping is continued until the required pressure is obtained. The hollow rod with its piston is then forced downward until the stem *x* of the valve *b* strikes and opens the valve *a*, when the piston-rod is turned part way round in order to lock its projection *e* beneath the flange *f* of the pump-barrel, and thus prevent the raising of the piston and the consequent closing of the valve *a*.

The parts having been thus adjusted, the cock *d* is opened, when the water, owing to the pressure of air in the reservoir, will be forced into the pump-barrel around the valve *a*, and thence through the passages *c* and the hollow piston-rod G to the nozzle H, from which it will be projected to fall back again into the basin.

From the basin the water can be forced back again into the reservoir at any time by a few strokes of the pump, and the requisite pressure can be maintained in the reservoir in the same way.

By arranging a valve in the hollow piston-rod, air can be conveyed through the latter into the pump, and thence to the reservoir when the basin is partly filled with water which it is not desired to return at once to the reservoir. In this modification, however, the valve *b* would have to be maintained in its seat by a light spring.

I claim as my invention—

1. A combined fountain and pump in which a hollow rod, G, is made to serve the twofold purpose of a piston-rod and a pipe for conveying fluid under pressure from the supply-reservoir to the discharge-nozzle, substantially as described.

2. The combination of the piston, its valve *b* opening downward, the hollow tube G, and openings furnishing a continuous communication of the tube with the space below the piston.

3. The reservoir A, barrel D, and valve *a*, in combination with the piston F and its valve *b*, so arranged as to open downward and to strike and operate the valve *a*, as set forth.

4. The barrel D, communicating with a reservoir for containing water and air under pressure, and provided with a flange, *f*, in combination with the piston-rod and its pin *e*, arranged as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH J. SINK.

Witnesses:

WM. A. STEEL,

HUBERT HOWSON.