

UNITED STATES PATENT OFFICE.

JOSEPH STORER, OF HAMMERSMITH, ENGLAND.

IMPROVEMENT IN FOUNTAINS.

Specification forming part of Letters Patent No. 111,697, dated February 7, 1871.

To all whom it may concern:

Be it known that I, JOSEPH STORER, of Hammersmith, in the county of Middlesex, a subject of the Queen of Great Britain, have invented or discovered new and useful Improvements in Fountains; and I, the said JOSEPH STORER, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof—that is to say:

The invention has for its object improvements in that class of self-acting fountains known as "Hero's fountain," and relates to the application of means whereby the repeated filling and emptying of the cisterns or reservoirs are obviated.

For this purpose I connect the cisterns or reservoirs by pipes or tubes carried by a suitable axis of motion, so that when all the water has passed from the upper to the lower cistern or reservoir, the cisterns or reservoirs can readily be turned or reversed on their axis of motion, and the action of the apparatus thereby renewed. The pipes or tubes connecting the two cisterns or reservoirs are arranged so as to afford proper air and water passages, while the axis is provided with suitable air and water passages to communicate with the pipes or tubes connecting the two cisterns or reservoirs, and with the passages connecting the basin with the two cisterns or reservoirs.

The tubes or pipes connecting the two cisterns or reservoirs alternately act as air or water passages, that acting for the time being as an air-passage being carried to the top of the upper cistern, and passing through a suitable way or passage in the axis to the air-tube, ending at the top of the lower cistern or reservoir, while that acting for the time being as the water-passage from the upper cistern or reservoir communicates by a way or passage in the axis with a tube passing to the jet-pipe, the water from the basin passing by a suitable tube or pipe through a passage in the axis to one of the tubes connecting the two cisterns or reservoirs, and passing to near the bottom of the lowermost cistern or reservoir.

The air and water pipes connecting the two cisterns or reservoirs are arranged so as to act alternately as the one or the other by simply

turning the cisterns or reservoirs on their axis.

And in order that my invention may be more clearly understood and readily carried into effect, I will proceed, aided by the accompanying drawing, more fully to describe the same.

Description of the Drawing,

which represents a vertical sectional elevation of a self-acting fountain, having my improvements applied thereto.

a a' are two cisterns or reservoirs, which are connected together by pipes or tubes *b b' c c'*, mounted on a hollow axis of motion, *d*, surrounding a fixed conical plug, *e*, having suitable passages *f g h* therein, communicating with the pipes or tubes *b b'*, *c c'*, and *i*, and with the jet-pipe *j*.

To put the fountain in operation, water is poured into the dish or basin *k* until the lower reservoir is filled and the opening *i* is covered. The cisterns or reservoirs *a a'* are then turned on their axis of motion, so as to place the filled cistern or reservoir *a* at the top, when the water therefrom will flow to a level in the jet-pipe *j*, and the water in the basin or disk *k*, by passing down the pipes or tubes *i* and *b'* into the lower cistern or reservoir, *a'*, rises in such lower cistern or reservoir *a'* and forces the air out therefrom through the pipe or tube *c'*, passage *f*, and tube *b* into the upper part of the cistern or reservoir *a*, where it presses upon the surface of the water therein and forces it out therefrom through the tube *c*, passage *h*, and jet-pipe *j*, until all the water in the upper cistern or reservoir, *a*, has passed through the jet-pipe *j* and into the lower cistern or reservoir, *a'*, by the pipe *i*, passage *g*, and pipe *b'*, when, by turning the cisterns or reservoirs *a a'* on their axis of motion until the cistern or reservoir *a'* is at the top, the action of the fountain will be continued; the pipes or tubes *b c'*, which had previously been air-passages, now becoming water-passages, and the pipes or tubes *b' c* now becoming air-passages, which had previously served for the passage of water.

By these improvements the necessity for alternately filling and emptying the cisterns or reservoirs *a a'* is obviated.

A spring stop or catch, *l*, is employed to retain the cisterns or reservoirs *a a'* in the desired position.

Having thus described the nature of my said invention, and the mode in which I carry the same into effect, I would have it understood that what I claim is—

A self-acting fountain, of the character herein described, with the cisterns or reservoirs capable of being turned on an axis of motion, and provided with suitable tubes, and within

the axis with valves or passages, so that by simply reversing the position of the cisterns or reservoirs *a a'* the action of the fountain may be continued, substantially as herein shown and described.

JOSEPH STORER.

Witnesses:

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