

Polyblank & Parkins.
Automatic Fountain.

2 Plates

Plate 1. 119,046.

Patented Sep. 19, 1871.

Fig. 1.

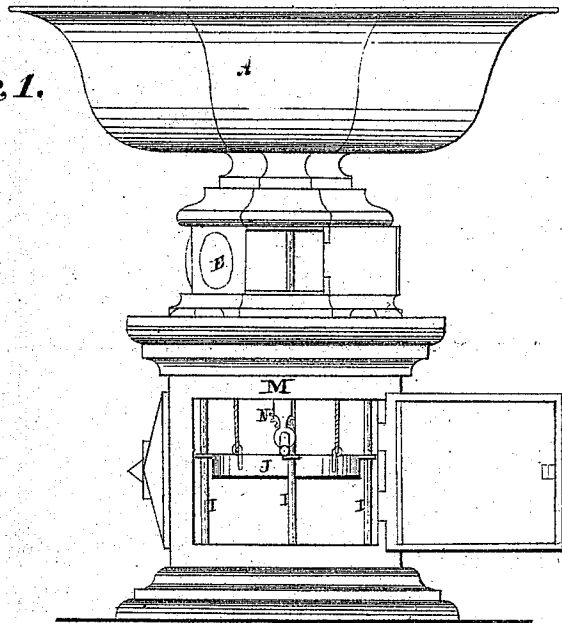
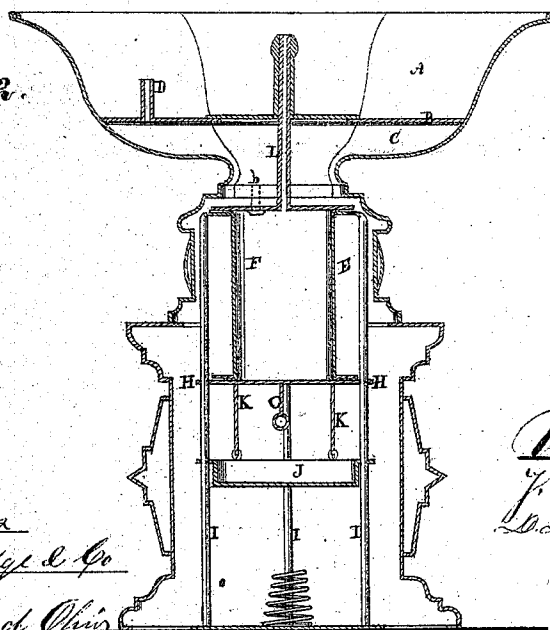


Fig. 2.



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Fig. 3.

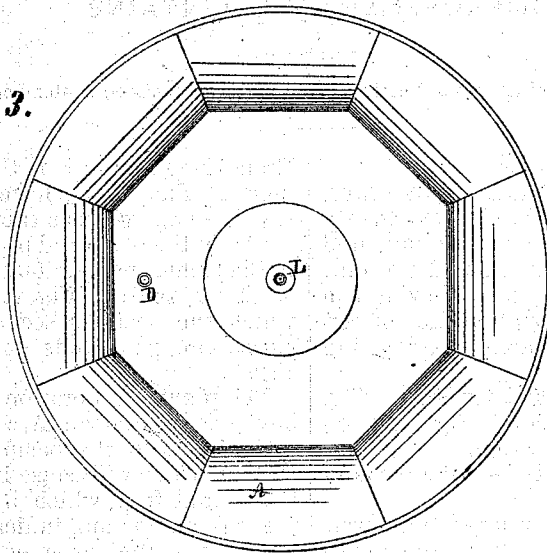
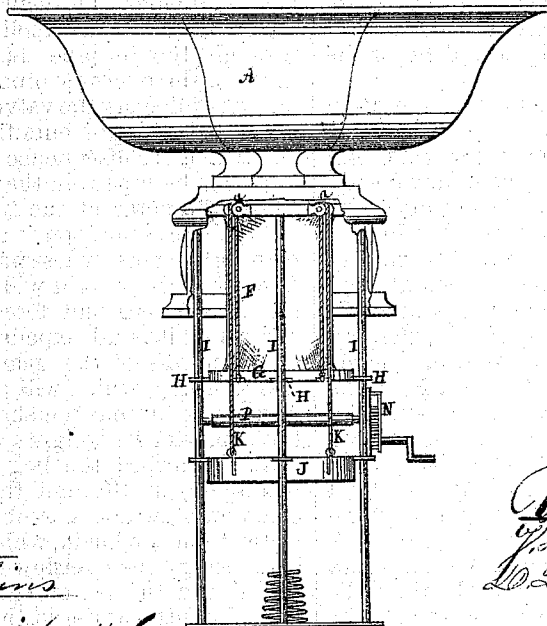


Fig. 4.

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UNITED STATES PATENT OFFICE.

GEORGE POLYBLANK AND JOSEPH PARKIN, OF CLEVELAND, OHIO.

IMPROVEMENT IN FOUNTAINS.

Specification forming part of Letters Patent No. 119,046, dated September 19, 1871.

To all whom it may concern:

Be it known that we, GEORGE POLYBLANK and JOSEPH PARKIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Automatic Fountain; and we do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing making part of the same.

Figure 1 is a side elevation of the fountain. Fig. 2 is a transverse vertical section. Fig. 3 is a top view. Fig. 4 is a detached section.

Like letters of reference denote like parts in the different views.

The nature of this invention relates to a water-fountain, and the special object of the same is to produce a jet of water by the application of a weight to a flexible bag containing the water, thereby causing an external pressure upon said bag, so that a jet therefrom will be thrown upward to a greater or less height, according to the size of the jet and the weight applied for the compression of the bag.

The construction, arrangement, and operation of the fountain are as follows:

In the drawing, Fig. 1, A represents the basin of the fountain, and which may be of any desirable capacity and design. Near the bottom of the basin is a midriff or supplementary bottom, B, Fig. 2, whereby is formed, between said midriff and the bottom of the basin, a chamber, C, having a communication with the upper part of the basin by means of an overflow-pipe, D, the purpose of which will presently be shown. Immediately below the basin is a chamber, E, to the ceiling of which is attached the upper end of a flexible bag, F, whereas the lower end is secured to a circular plate or bottom, G, from the periphery of which project lugs H, having in the end thereof a rounded notch, whereby the lugs are made to fit and clasp the guide-rods I, by which means the lower end of the bag is held in place and guided in its vertical movement by the rods. J is a dish, in which is placed the weights for compressing the bag. Said dish is suspended from the ceiling of the chamber E by the ropes K, each of which is run over a pulley, a, Fig. 4, one end of the ropes being attached to the dish, whereas the other is secured to the lower end of the bag, as shown in said Fig. 4, the practical operation of which will hereinafter be shown.

From the upper end of the bag proceeds a jet-pipe, L, Fig. 2, the lower end of which opens into the bag, whereas the upper end opens in the center of the basin and projects above the bottom of the same, and terminates in a very fine orifice, as shown in said Fig. 4. M is a pedestal, on which the basin is secured, and which also incloses the guide-rods and weight, as shown in Fig. 1.

The practical operation of the above-described device is as follows: A certain amount of water is thrown into the basin until it overflows the pipe D, which will cause it to run into the chamber C, and from which it will run into the bag through an opening indicated by the dotted line b, Fig. 2, at the lower end of which is a valve opening inwardly. The position of the bag and the weight-pan, as shown in Figs. 2 and 4, are such as when the bag is filled with water. It will be obvious that on pressing the bag the water therein will be compelled to escape therefrom through the jet-pipe L, as it cannot repass through the overflow-pipe D, through which the bag was filled, as the valve referred to closes the lower end and prevents the water from passing out, which in consequence is compelled to escape through the pipe L in the form of a jet or spray, as the character of the nozzle of the pipe may be. The pressure applied to the bag is obtained by weights more or less put into the dish J. The descent of the weight will draw upward the bottom of the bag and force the water therefrom, and, when it is all expelled, the weight is drawn up by means of the gearing N, operated by a crank or key, which will cause the rope O, Fig. 2, to wind around the shaft P and pull upward the dish with its weights, and, at the same time, draw downward the bag, into which the water will again run through the feed-pipe b from the chamber C, which chamber is kept full of the water from the basin, which runs into the chamber through the overflow-pipe D, as above said. As most of the jet or spray falls back into the basin but little water is, therefore, wasted; hence the basin will require supplying with water only occasionally to cause an overflow into the chamber for charging the bag, as it may be distended by the raising of the weight.

To produce a uniformity in the strength of the jet, so that it shall continue at a uniform height from the beginning of the descent of the weight

to the end thereof, a spring, Q, is placed below the dish. As the water from the bag is forced out the pressure is the greatest when the bag is nearly exhausted; hence the intensity of the jet will be increased by the small amount of water being subjected to the same pressure that the whole was at the beginning of the descent of the weight. To decrease the pressure of the weight upon the water when nearly spent, the dish or weight is sustained by the spring referred to, thereby lessening the pressure upon the small quantity of water in the bag, and which is so graduated as to continue the jet at the same height.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The flexible bag F for holding water, when arranged in relation to the chamber C, jet-pipe L, and charging-pipe b, substantially in the manner as described, and for the purpose set forth.

2. The arrangement of the basin A, midriff B, chamber C, overflow-pipe D, and jet-pipe L, in combination with the flexible bag F, in the manner substantially as and for the purpose specified.

3. The combination and arrangement of the weight-dish J, guide-rods I, ropes K, and flexible bag F, in the manner as described, and for the purpose specified.

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Witnesses:

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