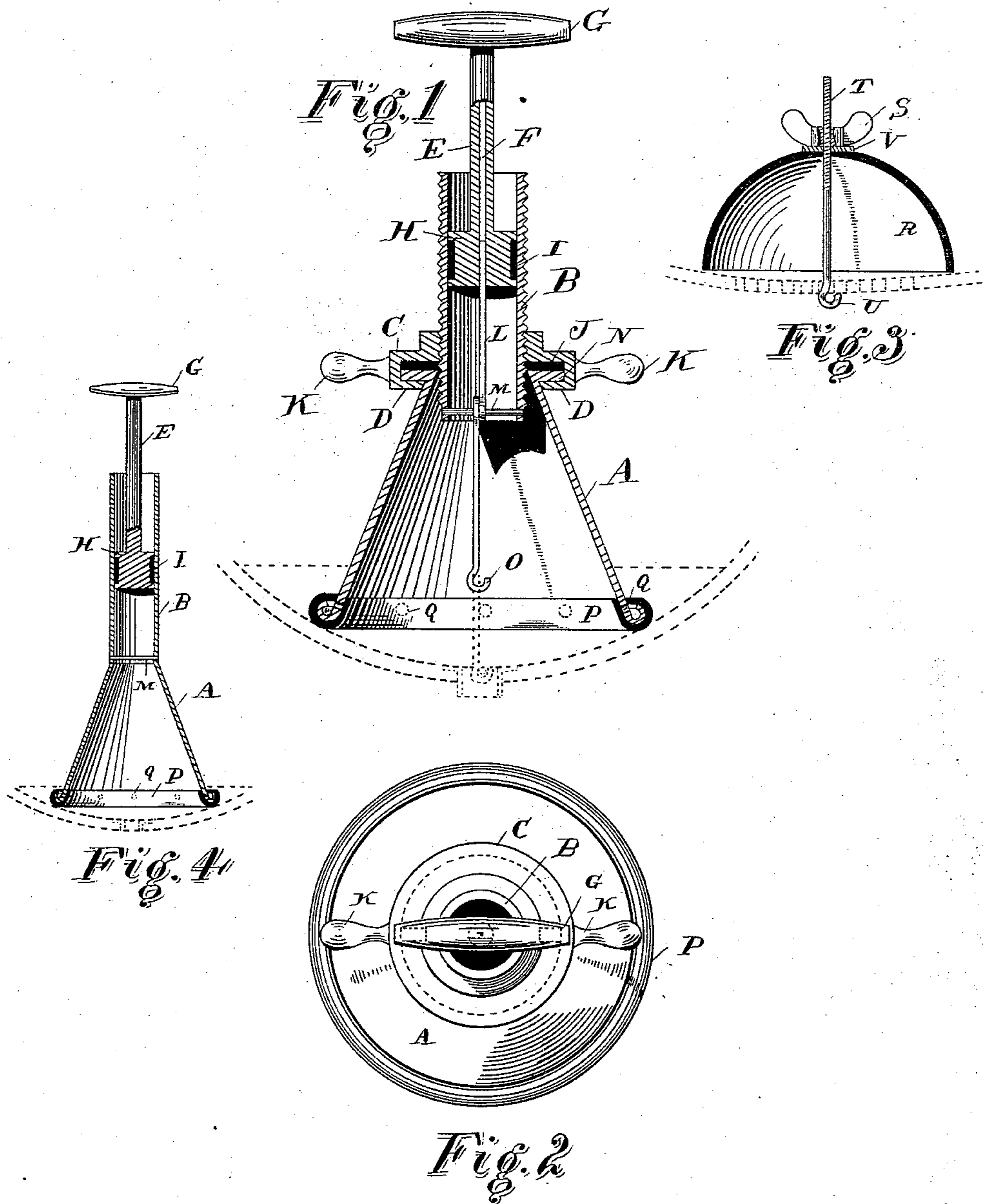


(No Model.)

J. P. CAHILL.  
FLUSHING PUMP.

No. 532,527.

Patented Jan. 15, 1895.



*Witnesses.*  
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# UNITED STATES PATENT OFFICE.

JOHN P. CAHILL, OF OAKLAND, CALIFORNIA.

## FLUSHING-PUMP.

SPECIFICATION forming part of Letters Patent No. 532,527, dated January 15, 1895.

Application filed March 19, 1894. Serial No. 504,334. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. CAHILL, a citizen of the United States, residing in Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Flushing-Pumps; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mechanism for flushing or clearing the outlet pipes of wash basins, bath tubs, sinks, or other similar fixtures or reservoirs and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, portability and lightness of construction, and inexpensiveness and general efficiency as well as adaptableness to all forms of basins, tubs or sinks. The novelty resides in the peculiarities of construction and the combinations, arrangements and adaptation of parts all as more fully hereinafter described and then particularly pointed out in the appended claims.

There are various forms which particular parts of this device may take on, and some minor details may be entirely omitted without destroying the operativeness, but such changes and omissions would be within the spirit of my invention, and I therefore do not desire to confine myself to the exact, construction, number and location of parts herein shown and described.

The invention is clearly illustrated in the accompanying drawings, which with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a longitudinal vertical section of my pump. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section of a device employed in connection with the pump, and Fig. 4 is a longitudinal vertical section of a modified form of the pump.

My invention consists essentially of a bell or conical shaped cap (A) to the upper or smaller end of which extends a vertical cylinder (B) in which acts a piston (E) and piston head (H) and one or more valve closed openings (Q) through which water is drawn within the bell shaped cap (A) at every upward

stroke of the piston head (H); the cap (A) being adapted to form an air tight seal around the outlet of the fixture whose outlet pipe it is desired to flush.

In order to render the simple mechanism described above more efficient and at the same time having in view economy in the manner of construction I have provided the several minor details and additions which I will now describe.

Extending outward from the upper or smaller end of the cap (A) is a lip or flange (N) above which is situated the thimble (C) the latter being held firmly on the flange (N) by means of the inwardly projecting jaws (D) which are shown in dotted lines in Fig. 2. Passing through this thimble (C) is the cylindrical tube (B) the outer surface of which is threaded, the latter engaging with corresponding threads on the thimble (C).

Passing downward through the center of the cylinder (B) and held therein by means of the cross wire (M) about which it is coiled, is the wire (L) the lower extremity of which terminates in the hook (O). The upper portion of the wire (L) above the cross rod (M) enters a vertical cavity (F) in the piston head (H) and piston (E) and is adapted to guide them as they reciprocate in the cylinder (B). The piston (E) terminates at its upper portion in the operating handle (G).

The lower rim of the cup shaped cap (A) is curled outward in order to more securely retain in position the rubber rim (P), which encircles the lower rim of the cap (A) and extends upward on the inner surface thereof sufficient to cover a series of perforations (Q) about the lower portion of the cap (A). In order to form a close contact between the piston head (H) and the cylinder (B) I have provided the washer (I) which encircles the piston head (H) and fits into a depressed portion thereof.

The manner of positioning and operating the devices above described is as follows: The cup shaped cap (A) being placed directly over the outlet of the basin, the latter being shown in dotted lines in Fig. 1, the thimble (C) is revolved in the proper direction by means of the projecting handles or arms (K) thus causing the cylinder (B) to travel downward until the hook (O) engages with one of the cross

bars of the strainer or sieve at the bottom of the basin (its position being shown in dotted lines) when the thimble (C) is revolved in the opposite direction, thereby forcing the lower rim of the cup shaped cap (A) down firmly against the bottom of the basin. Water is then admitted into the basin until it rises above the level of the perforations Q, when the piston (E) is caused to reciprocate within the cylinder (B). It is manifest that at each upward stroke of the piston (E) the flexible rubber washer (P) is drawn inward away from the perforations (Q) thus allowing water to enter the cap (A) and as the piston is forced downward the rubber washer (P) closes the perforations (Q) and the water contained in the cap (A) is forced downward through the outlet to the basin. The object of the hook (O) and mechanism for adjusting the elevation of the cylinder (B) is for the purpose of enabling the operator to use both hands on the handle (G); but for small fixtures I may find that this mechanism may be entirely dispensed with and it is then my intention to employ the construction shown in Fig. 4, when one hand is employed in holding the cap (A) firmly down on the bottom of the basin and the other in operating the piston (E).

In the case of stationary wash basins and other similar fixtures there is a series of openings near the top of the basin as an overflow drain, and to prevent water forced into the discharge pipe, from entering through these openings into the basin, I have provided the device shown in Fig. 3 which consists of a bell or semicircular shaped cap (R) adapted to fit over the overflow opening, shown in dotted lines, and held in position by means of the hook (U), on the rod (T) the upper portion of the latter being threaded and passes through the cap (R) and washer (V) and bearing at its end the thumb nut (S). It is manifest from the drawings that as the nut (S) is screwed down, the cap (R) is pressed firmly against the basin, thus preventing the escape of water through the overflow openings.

It will be readily seen from the foregoing description that I have provided a very simple, compact and inexpensive pump by the use of which the outlet pipes of basins, tubs and similar fixtures can be effectively flushed and further that the water necessary in the

operation of the pump is supplied directly from the fixture to be flushed thereby obviating the necessity of buckets or other reservoirs.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein described flushing pump consisting of a bell shaped cap adapted to encircle the discharge opening of an ordinary wash basin, tub or other similar fixture, a cylinder secured to said cap and containing a piston and piston head, and a flexible washer encircling the open or flaring edge of said cap, said washer extending upward on the inner surface of said cap and closing one or more perforations in said cap, and means for firmly holding said cap in the required position relative to said fixture, substantially as shown and for the purpose set forth.

2. A flushing pump consisting of a cylinder open at both ends and terminating at its lower extremity in a flaring conical cap, in combination with a piston and piston head in said cylinder, and one or more valve closed openings in said cap, substantially as shown and for the purpose set forth.

3. A flushing pump consisting of a bell or conical shaped cap, provided with one or more perforations about its lower edge a cylinder secured to said cap and containing a piston and piston head, in combination with a flexible washer encircling the open or flaring edge of said cap and extending upward on the inner surface of the cap and covering said perforations therein, substantially as shown and for the purpose set forth.

4. A flushing pump consisting of a bell or conical shaped cap, a cylinder secured to said cap and containing a piston and piston head, said cap bearing one or more valve closed openings, and means for firmly holding said cap in the required position relative to the fixture operated on, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand and seal in presence of two witnesses.

JOHN P. CAHILL. [L. S.]

Witnesses:

J. A. GOODWIN,  
W. E. LUTZ.