J. H. ASHTON.

SANITARY DRINKING FOUNTAIN.

APPLICATION FILED AUG. 30, 1911.

1,038,817. Patented Sept. 17, 1912.

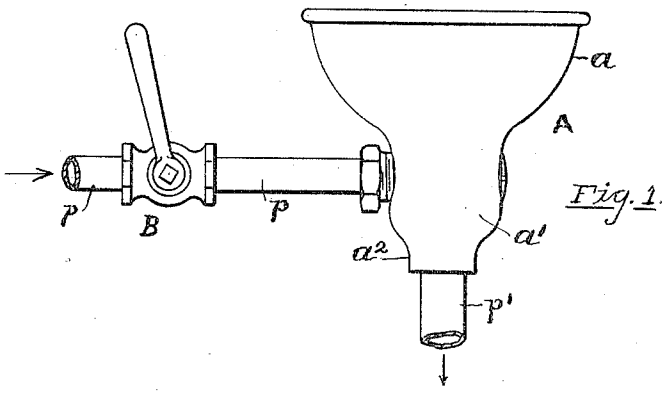

Fig. 1.

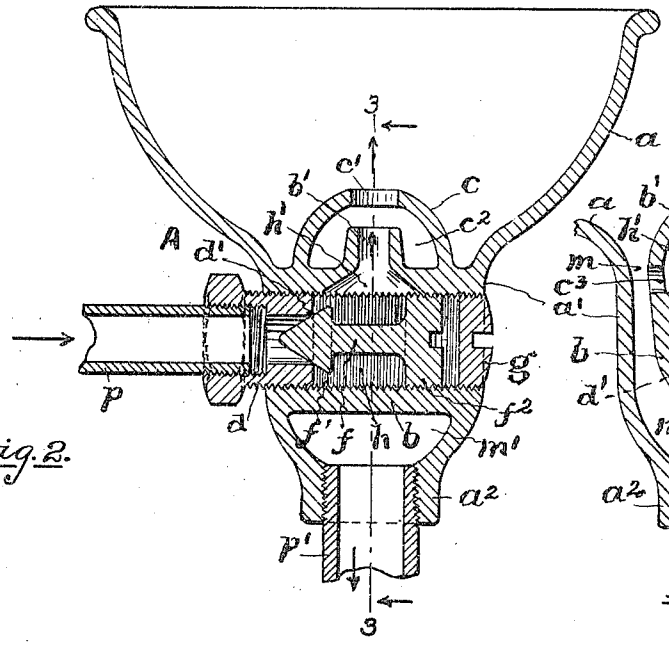

Fig. 2.

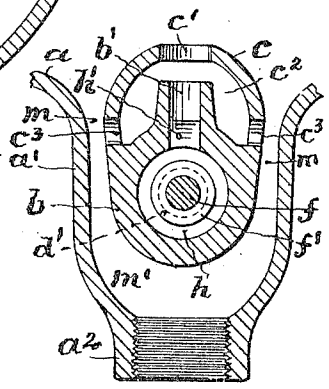

Fig. 3.

WITNESSES.

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SANITARY DRINKING-FOUNTAIN.

1,038,817. Specification of Letters Patent. Patented Sept. 17, 1912.

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To all whom it may concern:

Be it known that I, JOHN H. ASHTON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Sanitary Drinking-Fountains, of which the following is a specification.

My invention relates to improvements in sanitary drinking fountains, so-called, and it consists in the novel interior construction of the fountain, all as more fully hereinafter set forth and claimed.

Fountains of the class referred to, and embodying my invention, can be manufactured more cheaply, they are less wasteful of water, they are capable of being readily adjusted, even under pressure, they may be more accurately or finely adjusted or set so as to control the volume of upflowing water, while at the same time the construction is such that, in the event of tampering with or closing the outlet or jet passage, as is sometimes done by a mischievous person in an attempt to spurt the water or to produce a spraying effect, the full volume of water then automatically flows into an auxiliary chamber in continuous open communication with the waste outlet.

In the accompanying sheet of drawings, Figure 1 represents a side elevation of a drinking fountain embodying my improvement, and also means, including a shut-off, for conducting water to and from the fountain; Fig. 2 is a vertical central sectional view of the fountain proper, in enlarged scale, the jet controlling member or valve being shown in the fully closed position and against the inner end of the fitting adapted to connect with the usual water inlet pipe; and Fig. 3 is a partial vertical sectional view, taken on line 3—3 of Fig. 2.

The following is a more detailed description of my improved sanitary drinking fountain, including the manner of its operation.

The device as a whole, except the means for conducting water to and from the fountain, is designated by the letter A. It consists essentially of the members a; a^1, a^2 b, b^1 and c, all preferably integral or combined in one main casting or body, the fitting d, adjustable inner valve or member f, and the cap plug g. The said main casting or hollow body part comprises the cylindrical portion a^1, terminating at its lower end in the nozzle a^2, tapped to receive the waste water pipe p^1. The upper portion a is substantially bowl-shaped or outwardly flaring, its top edge being peripherally beaded or rounded and forming a guard adapted, when the fountain is in place, to prevent the lips of the user from extending to and engaging the apertured smaller central convex protector or hood part c below. A horizontal or lateral cylindrical hub or tie member b connects the inner sides of said portion a^1 and is tapped throughout its length to receive the fitting d, adjustable valve f, and cap-plug g, shown most clearly in Fig. 2. The top side of said internal member b has a short central outlet nozzle b^1 extending upwardly from it, the same being inclosed within the auxiliary chamber c^2 formed by the protector c. The upper wall of the latter is comparatively thin and dome-shaped, and is provided at the top with the central outlet aperture c^1. The upper end of nozzle b^1 is located a short distance below and in alinement with the aperture c^1, and having the net open area of the latter somewhat exceeding that of b^1, as shown. The opposite sides of the jet protector or dome c may be extended downward to the hub b and provided with side openings c^3 in continuous open communication with the chamber c^2 and side passages m, as clearly shown in Fig. 3.

The fitting d (Fig. 2) is adapted to be screwed into either end of the member b and is also adapted to connect with the inlet or supply pipe p; it is centrally bored, and has its inner end constructed to form a suitable seat d^1 for the valve member f. This latter member, f, has one end f^1, thereof adapted to snugly engage and close against said seat, its opposite end, f^2, being screw-threaded to fit the interior thread of the hub b. The outer end of the member f, and also that of the plug g, may, if desired, be nicked or transversely slotted to receive the blade of a screw-driver. The plug not only serves as a finish, but to some extent precludes tampering with the valve.

The manner of operation is substantially as follows: Assuming first, however, that the several members have been properly assembled and the device connected by means of pipes p and p^1 to the water supply and waste, respectively: and further assuming the valve member f to be positively adjusted, as desired, so as to admit a limited flow of

water into the space h, h^1 and b^1 of the member b; the user now, upon opening the induction pipe p, say by means of a cock B, causes the water to flow inward in the form of an annular stream, and thence upward through the reduced jet b^1 and enlarged registering orifice c^1 for use; the height and volume of the water column being determined by the load or pressure and the pre-adjusted amount of valve opening. The upflowing water does not extend beyond the limits of the bowl part a, and in returning it falls back by gravity, as waste, onto the exterior of the dome c and from the latter *via* the open inner side passages m—m and bottom chamber m^1 into the waste pipe p^1.

It may be stated that when the device is in normal service or action no water is present in the auxiliary chamber c^2, therefore no water whatever flows to waste until it has first been ejected for use from the jet or nozzle b^1 through the aperture c^1 above. It is thought that the present device or sanitary drinking fountain is the only one in which the adjustment or control of the outflowing water may be readily effected while it is in normal action, and while the main control or stop-cock is open. In lieu of the parts d, f and g, removably mounted in the screw-threaded hub b, the latter is readily adapted to receive therein any suitable automatic or self-closing valve proper.

I claim as my invention:—

1. In a sanitary drinking fountain of the character described, the combination of a hollow body having its upper portion enlarged and open at the top to produce a water receiving cup adapted to freely receive a person's mouth, a transverse hollow hub uniting the opposite walls of said body; a waste water outlet disposed below said hub in continuous open communication with said cup, a water inlet passage extending into the hub's interior having its inner end adapted to form a valve seat, a normally stationary valve member adjustably mounted in and closing the opposite end of the hub, arranged to engage said seat and also for controlling the area of discharge orifice formed between the seat and valve, a continuously open inner discharge orifice communicating with the hub's interior, and a chambered protector member having an opening in its wall directly above, alining with and larger than said discharge orifice.

2. In a sanitary drinking fountain of the character described, the combination with a vertically disposed hollow body member having an enlarged open cup at its upper end, a main waste water outlet at its lower end in continuous open communication with said cup, and a hollow transverse hub uniting the opposite side walls of the body, of a longitudinally apertured fitting mounted in one end of said hub, a normally stationary valve member adjustably mounted in and closing the other end of the hub and also capable of closing the inner end of said apertured fitting, and a central convex inner member forming an auxiliary chamber located at the base of said cup having a discharge outlet registering with an orifice formed in the upper wall of said hub.

3. In a fountain of the general character described, the combination with a chambered body part having a transversely hollow hub uniting its inner opposite side walls, a centrally apertured hollow protector member extending upwardly from said hub, through which aperture the water is discharged for use, a nozzle having an opening extending from the said hub's interior into the protector's chamber, the latter also having openings through its wall for the passage of waste water, and means for conveying water *via* said hollow hub to the said body part, and means for conducting water therefrom.

4. In a fountain of the general character described, the combination with a hollow body member having an interiorly tapped, transversely disposed hollow hub provided on its upper side with a continuously open orifice for discharging water therefrom, of a fitting member screwed into one end of the hub, adapted to connect with the main water supply, a valve member adjustably mounted in the hub, having a portion thereof reduced in diameter and adapted to engage the inner end of said fitting for controlling the volume of outflow from said open orifice, and a cap-plug removably mounted in the opposite end of the hub.

5. In a sanitary drinking fountain, the combination of an integral hollow body member open interiorly throughout its length for the escape of waste water, said body arranged to connect with the main water supply, a hollow hub uniting the opposite inner side walls of the body, said hub having an initial discharge opening formed through its upper wall, a chambered protector, integral with the hub, practically surrounding the latter's opening, having a main discharge orifice disposed above and in alinement with said initial opening, but of greater area than the latter, and valve mechanism adjustably mounted in said hollow hub for controlling the volume of water discharged from the fountain.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN H. ASHTON.

Witnesses:
GEO. H. REMINGTON,
HENRY P. STONE.