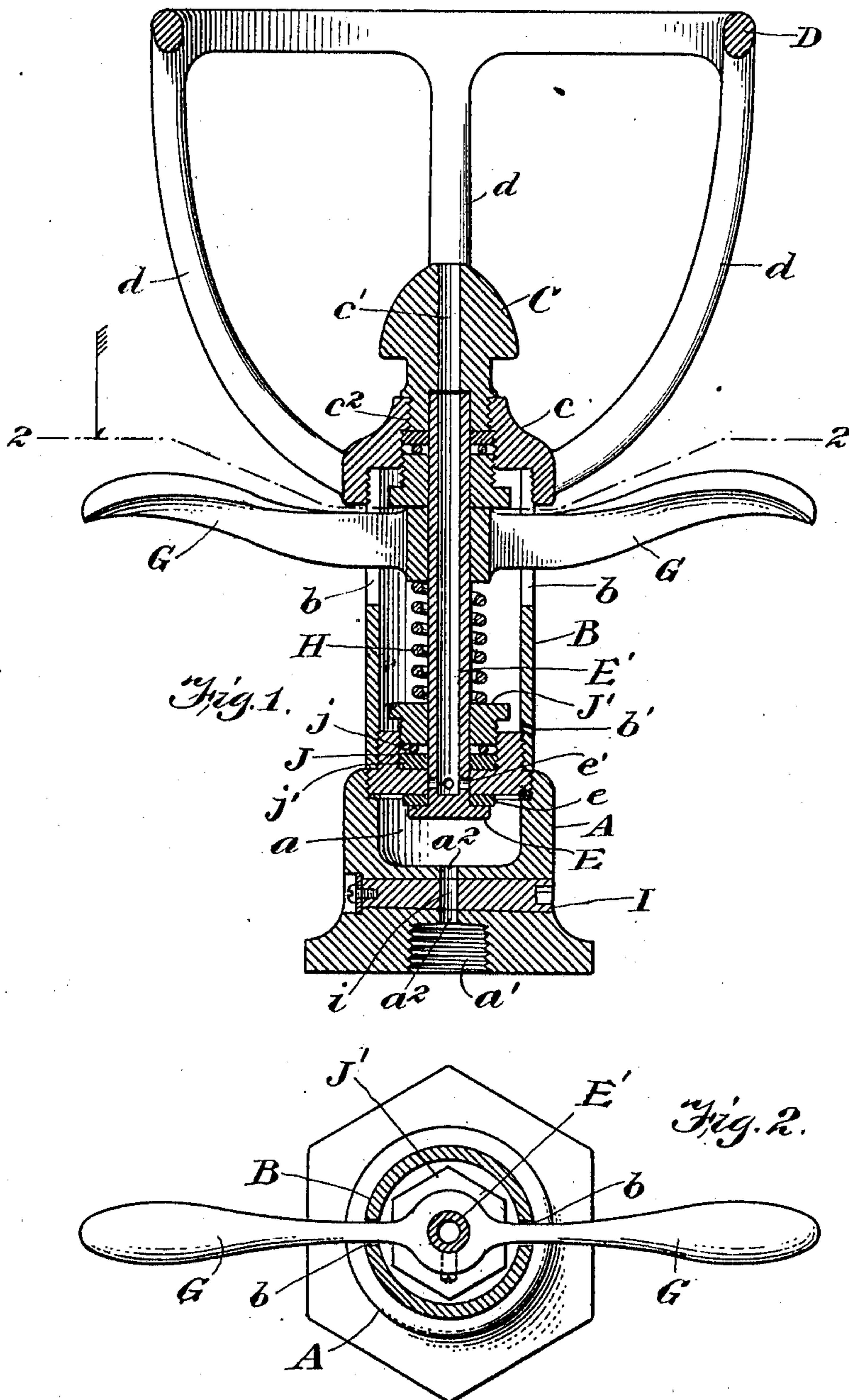


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 SANITARY DRINKING FOUNTAIN.
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UNITED STATES PATENT OFFICE.

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SANITARY DRINKING-FOUNTAIN.

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To all whom it may concern:

Be it known that I, JOHN GOEBEL, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have invented a certain new and useful Sanitary Drinking-Fountain, of which the following is a specification.

For a number of years past, and particularly since the reasons for the spread of contagious diseases has been established, numerous efforts have been made whereby the drinking of water and other potable liquids in public places might be accomplished without exposing the drinker to those forms of bacterial diseases communicable through the mouth. The ordinary drinking cup commonly used in public schools, public parks, etc., has been frequently pointed out as one of the most common sources of diseases or ailments of the character under consideration, and special efforts have been made with a view to entirely dispensing with its employment. Among the devices which have been used to quite a considerable extent is a drinking fountain involving a movable nozzle, upon the depression of which a small stream of water is allowed to flow in such manner that it may be taken directly into a person's mouth, thereby dispensing with a drinking cup. The devices of this character, however, so far as I am aware, are of such construction as to permit the lips or mouth of the user to come into contact with the nozzle from which the water issues, thereby constituting a source of contagion.

The object of the present invention is to provide a drinking fountain from which a jet of water may be directed into the mouth and yet absolutely preclude the lips or mouth of the person drinking therefrom from contacting with the nozzle from which the jet issues.

With this object in view, one important feature of the invention consists of a guard extending above the nozzle to such extent as to preclude the lips or mouth of the drinker touching or contacting therewith.

Another feature of the invention consists of means, separate from the guard, for controlling the outlet from the nozzle.

Other novel features embodied in the new type of fountain will be apparent from the hereinafter detailed description and appended claims.

In the accompanying drawings I have illustrated one practical embodiment of the invention, but the construction shown therein is to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a vertical section through a sanitary drinking fountain embodying my new invention. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

A designates a base, B a hollow column, C a nozzle, D a protecting guard, E a valve, E' a valve stem, G an operating handle, and H a coiled spring, the detailed construction of which will now be described.

Base, A, is provided with a valve chamber, *a*, in which is positioned valve, E. At the lower part of the base is a threaded opening, *a'*, whereby the fountain may be attached to a pipe adapted to convey liquid to said fountain. The base is provided, furthermore, with registering ports, *a*², one of which is in communication with valve chamber, *a*, and the other with opening, *a'*. Intermediate these ports is a cut off, I, having a port, *i*, adapted to register with ports, *a*², for the purpose of regulating the flow of liquid into valve chamber, *a*.

J designates a plug which is screwed into the male thread at the upper part of valve chamber, *a*, the lower face of said plug, J, forming a seat for a washer, *e*, of the valve, E.

Column, B, is provided at its lower end with a female thread which is screwed upon a male threaded upper part of plug, J, thus attaching the column firmly to base, A. Said column is provided with longitudinal slots, *b*, near its upper part, and upon the upper part of said column is secured a cap, *c*, to which is rigidly fastened stationary nozzle, C, the latter having a longitudinal passage, *c'*, which constitutes an inlet for the liquid jet adapted to be supplied through the drinking fountain when valve, E, is opened. Said nozzle is provided with a sleeve, *c*², which extends downwardly into the upper part of column, B, and within said extension, *c*², of the stationary nozzle is slidably fitted the upper part of valve stem, E'. Said valve stem passes loosely through plug, J, gland, *J'*, and column, B, so that the upper part of the valve stem fits slidably within extension, *c*², of the nozzle, whereby the valve stem is fitted slidably within the plug,

J, and nozzle, C. The valve stem is hollow or tubular so that its liquid passage will communicate with jet passage, c' , of the nozzle, and at the lower end of said valve stem are provided ports, e' , when open radially through the walls of the valve stem and are positioned above washer, e , of the valve, whereby said ports, e' , are adapted to communicate with valve chamber, a , when the valve stem and the valve are depressed, thus establishing a passage-way for the liquid to flow from the valve chamber, a , through ports, e' , into valve stem, E' , and through said valve stem into passage, c' , of the nozzle.

Handle, G, is shown as a substantially horizontal bar extending loosely through slots, b , of column, B, and attached rigidly to valve stem, E' , whereby said valve stem is movable with the handle, and said handle is fitted in the slotted column for sliding movement therein. The valve stem, the handle and the valve are raised by the action of coiled spring, H, which loosely encircles the tubular valve stem and is adapted to press against the underside of handle, G. The lower end of said spring is seated upon gland, J' , which is screwed into a female thread provided within plug, J, said plug having a chamber, j , within which is disposed a packing, j' . The gland is adjustable within the plug for the purpose of compressing the packing and securing a tight joint around the valve stem and within the plug, thus precluding the leakage of liquid from valve chamber, a , into hollow column, B. If desired, the upper part of the tubular valve stem may have a packing around that part of the valve stem which is slidably fitted in extension, c^2 , of the nozzle, thereby precluding leakage of the liquid from the lower part of the nozzle.

Hollow column, B, is provided at its lower part with one or more drain holes, b' , through which is adapted to escape any liquid which may accumulate within the column.

Guard, D, is represented as a ring occupying a horizontal plane some distance above the outlet from stationary nozzle, C. As shown, said guard ring is provided with downwardly curved arms, d , which converge toward cap, c , and are, preferably, made integral with said cap.

From the foregoing description it will be observed that nozzle, C, and the protecting guard occupy stationary positions on column, B; that the operating member, G, and the valve are movable independently of the nozzle and the guard, and that the tubular valve stem is fitted slidably in a part of said nozzle so that the valve stem may have movement relative to said nozzle.

In the operation of the device, valve, E, is held in a closed position against plug, J, by the action of spring, H, the latter lifting

the tubular valve stem and the handle. When it is desired to drink from the fountain, the person rests the chin upon guard ring, D, and presses downwardly upon handle, G. The downward movement of the handle compresses spring, H, and lowers valve stem, E' , and valve, E, thus opening ports, e' , whereby liquid flows from valve chamber, a , through ports, e' , valve stem, E' , and passage, c' , of nozzle, C. The liquid flows under such pressure that it spurts or jets from the outlet of nozzle, C, and the drinker is thus able to take in the liquid issuing from the nozzle without permitting the lips or mouth to come into contact with the surface of said nozzle. When the pressure is removed from the handle, G, spring, H, at once acts to lift the valve stem and the valve, thus cutting off the flow of liquid through the fountain. The pressure of the liquid may be controlled or regulated, more or less, by adjusting the cut-off valve, I, in the base of the drinking fountain.

I attach a special importance to the employment of guard ring, D, elevated a considerable distance above the outlet of nozzle, C, said outlet and the guard occupying a stationary position on the column, for the reason that when the drinker places the chin upon the guard ring, it is not possible for the lips or mouth to come into contact with the nozzle, thereby precluding dissemination of disease germs from the drinking fountain.

Having thus fully described the invention, what I claim as new, and desire to secure by Letters Patent is:

1. In a drinking fountain, a stationary nozzle, a guard positioned adjacent to the nozzle, a tubular valve stem reciprocating with respect to the nozzle and adapted to supply liquid thereto, a valve on said valve stem, and means independent of the nozzle for operating said valve stem.

2. In a drinking fountain, a stationary nozzle, a protecting guard extending around and beyond the outlet of the nozzle, a tubular valve stem reciprocating with respect to the nozzle and adapted to supply liquid thereto, a valve chamber, a valve in said chamber, and means independent of the nozzle for operating said valve and valve stem.

3. In a drinking fountain, a stationary nozzle, a protecting guard positioned adjacent to the nozzle, a valve chamber, a valve in said chamber, a tubular valve stem cooperating with the nozzle and valve and adapted to supply liquid to the nozzle, inlet ports in said valve stem, tension means independent of the nozzle for normally cutting off the flow of water by closing said valve, and separate means for actuating the stem and valve against the tension means, whereby the valve is adapted to be opened.

4. In a drinking fountain, a base, a hollow column thereon, a cap on said column, a

nozzle rigidly attached to the cap, a valve in said base, a tubular reciprocable valve stem coöperating with the valve and the fixed nozzle, and means on said valve stem
5 for controlling the flow of water through the nozzle.

5. In a drinking fountain, a base provided with a threaded opening, a valve chamber, and a port connecting said threaded opening
10 and valve chamber, a plug on said base, a hollow valve stem extending to said nozzle and slidably mounted within said plug, ports within said valve stem, a valve on said stem, and means independent of the nozzle for
15 placing said valve under tension and controlling the flow of liquid through the valve stem.

6. In a drinking fountain, a base provided with a threaded opening, a valve chamber, and a port connecting said threaded opening
20 and valve chamber, a column mounted on said base, said column supporting a stationary nozzle and a protecting guard adjacent to said nozzle, a hollow valve stem slidably
25 mounted within the column and the nozzle, and means for controlling the admission of fluid through the valve chamber and said valve stem to the nozzle.

7. In a drinking fountain, a base provided
30 with a valve chamber, a vertical column mounted on said base, said column supporting a stationary nozzle and a protecting guard, a hollow valve stem slidably mounted within said column, said valve stem having
35 a valve at its lower end positioned within

the valve chamber, the upper end of said stem being slidably mounted within said nozzle, said valve stem being provided with ports, and means mounted on said valve stem
40 for controlling the admission of fluid through the valve chamber and the valve stem to the nozzle.

8. In a drinking fountain, a base provided with a valve chamber, a vertical column
45 mounted on said base, said column supporting a stationary nozzle and a protecting guard, a hollow valve stem slidably mounted within said column and the nozzle, a valve on said valve stem and within the valve
50 chamber, a gland within said column and around the valve stem, a handle attached to said valve stem and positioned below the nozzle, and a spring on said valve stem, said
55 spring being intermediate said handle and gland.

9. In a drinking fountain, a column, a stationary nozzle thereon, a guard adjacent
60 to the nozzle, a tubular stem slidable with respect to the nozzle and adapted to supply liquid thereto, a handle fixed to the stem and adapted to depress the same, a valve
65 controllable by the movement of the stem, and means for normally closing the valve.

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

JOHN GOEBEL.

Witnesses:

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