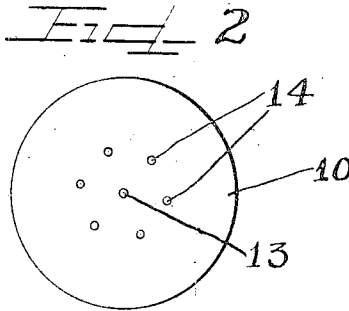
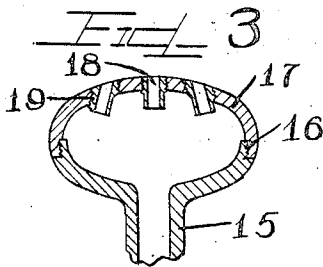


1,081,718.

Fig. 1

Technical drawing of a mechanical device, likely a pump or valve assembly, showing a cross-section of a housing with a central shaft and a flange. The drawing is labeled with numbers 1 through 14 and letters x, y, z. A title 'Fig. 1' is at the top left.



W

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UNITED STATES PATENT OFFICE.

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NOZZLE FOR DRINKING-FOUNTS.

1,081,718.

Specification of Letters Patent.

Patented Dec. 16, 1913.

Application filed August 7, 1911. Serial No. 642,355.

To all whom it may concern:

Be it known that I, ALBERT C. BROWN, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Nozzles for Drinking-Founts; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

This invention relates more particularly to that class of drinking founts known as "bubbling founts," in which the use of a cup is not required, but in which the user drinks from a jet of water as it is forced above a nozzle.

Various devices have been constructed to obviate the necessity of drinking cups in public places. Such devices as heretofore constructed have not always been sanitary, inasmuch as some part of the bowl or receptacle is sometimes of necessity contacted by the face or lips of the drinker and furthermore even in those in which the bowl is at all times washed by flowing liquids they have been objectionable, for the reasons that in drinking from the jet the user nearly always wets a large portion of his face as well as swallows large quantities of air with the water as he drinks.

The object of this invention is to afford a device for the purpose specified adapted for general use in public and private places.

It is also an object of this invention to provide a nozzle having guide passages or apertures therein adapted to deliver a vertical stream of water and a plurality of obliquely inclined streams directed toward a common point in the vertical jet to afford a central jet to be received between the lips and a continuous circular shoulder of water surrounding the same to contact the lips to prevent the intake of the air.

It is a further object of the invention to provide a nozzle having a guide passage acting to deliver a vertical stream of water and a plurality of inclined streams of water directed convergently toward a common point in the vertical stream and which are carried slightly upward at the point of contact with the vertical stream and then deflected to fall back over the upgoing in-

clined streams to wash the nozzle and to afford a continuous body of water with a relatively small raised central jet.

A preferred form of my invention is hereinafter more fully described.

In the drawings: Figure 1 is a view of a device embodying my invention, shown partly in section and partly in elevation. Fig. 2 is a top plan view of the nozzle shown in Fig. 1. Fig. 3 is a fragmentary sectional view of a modified form of the nozzle.

As shown in the drawings: 1, indicates a waste bowl having a tubular integral hub 2, in its side and a centrally apertured boss 3, in its bottom. A waste pipe 4, is threaded in said boss 3. An inlet pipe 5, having an elbow 6, threaded on its inner end, is connected by the union 7, with the inner end of said hub 2, and a supply pipe 8, is connected by means of a suitable union or other suitable connection with the outer end of said hub.

As shown in Fig. 1, the supply pipe 9, of a nozzle 10, is threaded or secured in any suitable manner in the elbow 6, and the upper end is flared outwardly and upwardly and then converges inwardly to afford an inclosed pressure chamber 11. The upper or top wall 12, of said nozzle, is provided with a central aperture or vertical passage 13, extending therethrough, and a plurality of inclined passages 14, surround said vertical passage 13, and are directed toward a common point above the central vertical passage and in the jet therefrom.

The modification of the nozzle shown in Fig. 3, is practically identical with that shown in Fig. 1. As shown, in Fig. 3, the upper end of the inlet pipe 15, is flared outwardly and upwardly and is provided with a threaded flange 16, upon which a complementally shaped apertured cap 17, is threaded or otherwise secured to provide the upper inclosing wall for the pressure chamber. In the construction shown in Fig. 3, the top wall of the chamber is not as thick as that shown in Fig. 1, and consequently guiding or directing tubes 20, are secured in the passages in said cap 17, to afford directing passages 18—19, similar to the passages 13 and 14, respectively disclosed in Fig. 1.

The operation is as follows: The water enters the pressure chamber 11, from the inlet pipe 5, and is forced directly upwardly through the vertical directing passage 13,

and obliquely upward through the inclined directing passages 14. As shown in Fig. 1, the streams directed through the inclined passages tend to meet at a common point in the stream directed from the vertical passage but are prevented from meeting by said stream and are deflected upwardly slightly outwardly and fall back over the obliquely directed streams to wash the nozzle. The stream directed through the vertical passage rises slightly above the shoulder Y, formed by the deflected oblique streams to form a central jet Z. The operation of the nozzle shown in Fig. 3, is identical with that disclosed in Fig. 1. In drinking, the lips are placed about the jet Z, and against the shoulder Y of the fountain and, owing to the construction of the nozzle, the fountain formed permits the drinking of the water without swallowing large quantities of air with the water, as heretofore with bubbling founts.

Of course, I do not purpose limiting the patent to be issued on this application otherwise than necessitated by the prior art, as numerous details of construction may, of course, be varied without departing from the principles of my invention.

I claim as my invention:

1. A fount nozzle comprising a pressure chamber apertured to afford a central jet and surrounding inclined jets converging into the central jet and affording a primary fount of water and an annular raised secondary fount surrounding the same and slightly below the top thereof.

2. In a device of the class described an inlet pipe, a globular nozzle secured thereon, a plurality of apertures therein each directed toward a common point adapted to afford a

relatively large jet with a smaller jet superposed thereon.

3. In a device of the class described, a nozzle comprising an inlet pipe flared outwardly and upwardly, a threaded flange thereon, a complementally shaped apertured top threaded on said flange, a vertical tube secured in one of said apertures and a plurality of inclined obliquely directed tubes arranged to afford a plurality of streams of water converging toward a common point in a stream directed from the vertical tube.

4. A bubbling fount comprising a source of water pressure, a nozzle connected therewith and affording jets arranged around the same and converging to afford a main or primary fount, and a smaller secondary fount of water rising centrally above the same and from which the water flows down over the primary fount affording a shoulder of water at the junction of said founts and a basin below the nozzle to catch the waste.

5. A device of the class described comprising a waste bowl provided with an integral tubular hub in the side thereof and an apertured boss in its bottom, an outlet pipe secured in said apertured boss, an inlet pipe secured in said tubular hub, and a fount nozzle connected with said inlet pipe and apertured to afford a central vertical jet and a plurality of circumferential inclined jets converging into the central jet affording abrupt change in cross sections of the flow.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

ALBERT C. BROWN.

Witnesses:

CHARLES W. HILLS, Jr.,
CHARLES W. HILLS.