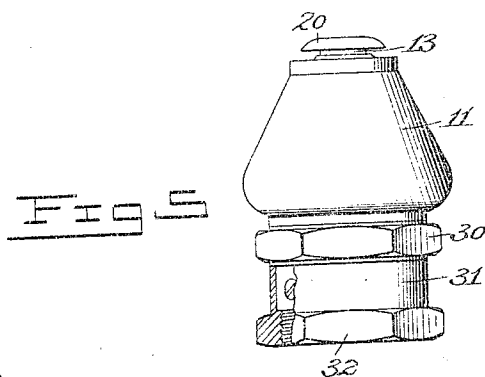
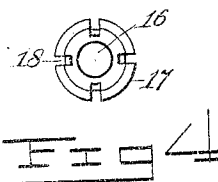
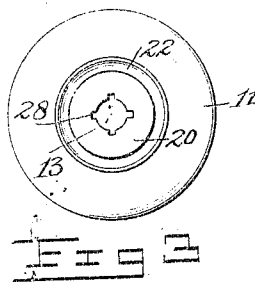
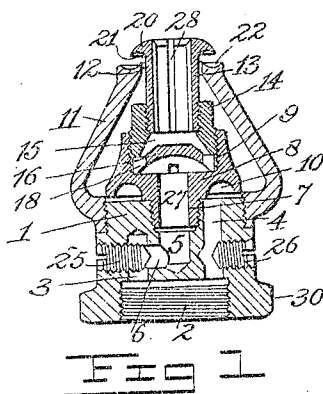
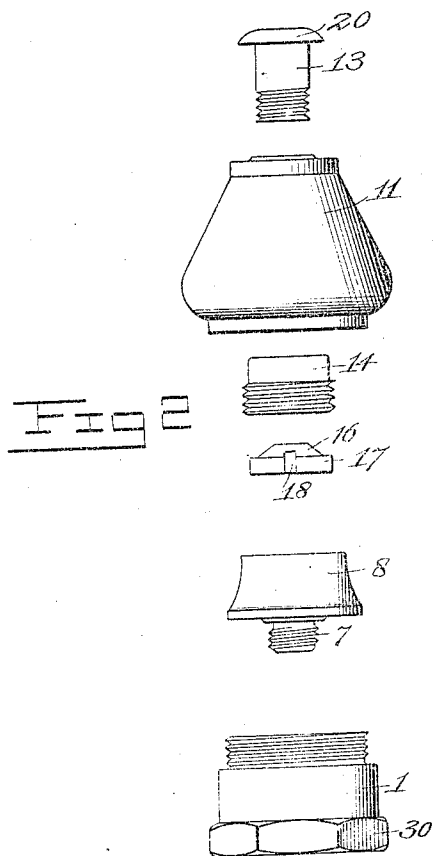


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 SANITARY DRINKING FOUNTAIN.
 APPLICATION FILED MAR. 28, 1911.

1,013,043.

Patented Dec. 26, 1911.



Witnesses

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SANITARY DRINKING-FOUNTAIN.

1,013,043.

Specification of Letters Patent.

Patented Dec. 26, 1911.

Application filed March 28, 1911. Serial No. 617,476.

To all whom it may concern:

Be it known that we, PHILIP MUELLER and ANTON C. SCHUERMANN, citizens of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Sanitary Drinking-Fountains, of which the following is a specification.

This invention relates to drinking fountains, and has for its chief object to produce a drinking fountain that is sanitary and that may be installed in schools, public buildings, hospitals, railway stations and like places where it can be attached to a regular drinking fountain bowl, to a special faucet or to any other suitable service fitting, suitable means being provided for catching the overflow water.

The basic principle of this invention is to produce an unbroken circular sheet of water flowing outwardly and upwardly or downwardly, from the center of which circular sheet there is projected in a vertical direction a stream of bubbling water for drinking purposes. This principle is reduced to practice by means of a nozzle of peculiar construction into one end of which, water enters from a single pipe or other connection, and through one of two separate passageways, the water is conducted to a nipple having a central outlet for the drinking stream, while from the other passageway water passes around said nipple and emerges in a thin unbroken sheet just beneath the cap or head of said nipple, which is made adjustable to regulate the direction, force and tenuity of said sheet of water. The outflow of water through and around the nipple is regulated by suitable independent means in each passageway so arranged as to be separately adjustable exterior of the nozzle for the purpose of regulating the pressure and quantity of water flowing from the two outlets. One of said regulating means when properly set will cause the drinking stream to bubble or flow to such a height that a person can obtain a drink therefrom without letting his lips come in contact with the nipple; the other regulating means controls the amount and force of water flowing to and forming the circular or protecting sheet. The protecting sheet of water at the base of the drinking stream is caused to flow in such direction that when a person attempts to put his lips

on the nipple, the water of the protecting sheet will splash into his face and nose and thereby cause him to withdraw his mouth from the nipple.

The shape and configuration of the invention is such as to leave no receptacles or other means for holding or catching any foreign deleterious substances, and if any should come in contact with the fountain they are readily washed away on account of the novel frusto-conical shape of the nozzle or fountain, and readily fall away from the sides thereof.

In the accompanying drawing forming a part of this specification, Figure 1 is a vertical central sectional view. Fig. 2 is a view showing in side elevation the various parts forming the nozzle disassembled and arranged in line. Fig. 3 is a top plan view of the nozzle. Fig. 4 is a top view of a detail of the invention, Fig. 5 is a side view of the invention showing a modified construction.

Like reference characters are used to designate the same parts in all the figures.

In the drawing, which shows only the nozzle used in connection with the drinking fountain, 1 represents the body portion thereof, in the base of which is an interiorly screw threaded opening 2, through which water enters the nozzle from an inlet pipe or any suitable service fitting. Two passageways 3 and 4 are bored vertically into the body 1 from the opening 2, the passageway 3 extending part way in the body and the passageway 4 passing entirely through it. A central opening 5 passes downwardly into the body 1 and is connected at its bottom by a port 6 with the passageway 3. The upper end of said opening is preferably enlarged and screw threaded to receive a threaded stem 7 projecting from the underside of a spreader 8 having a depression 9 formed in it from above, said cavity being screw threaded as shown. The underside of the baffle plate has formed therein an annular groove 10 preferably semicircular in cross-section.

The upper end of the body 1, which is of slightly greater diameter than the baffle plate 8 is exteriorly threaded to receive the threaded lower end of a hollow frusto-conical shell 11, the smaller end of said shell being directed upwardly and is provided with a central opening 12, through which the nip-

ple 13 passes inwardly and is threaded at its lower end within a nut 14 having exterior screw threads to engage the threads formed in the depression 9. The nut 14 has a cavity 15 in its underside into which enters but does not fill, a dome-shaped baffling member 16 having a flange 17 into which are cut grooves 18 as shown, said baffling member being held in the depression 9 by the nut 14, the thin outer edge of which, when the nut is screwed down, bearing on the top of the flange 17.

The nozzle 13 has a laterally extending head 20 convexly curved on its outer side, said head projecting partly over the upper edge of the frusto-conical shell 11. In the construction shown, the under-surface of the head 20 is provided with an annular groove 21. An annular groove 22 is also formed in the upper edge of the shell 11, these grooves coöperating to deflect the protecting sheet of water and direct it in the desired direction.

A screw plug 25 serves as a valve to regulate the quantity of water passing through the passageway 3, and a like valve 26 projects into the passageway 4 for a similar purpose.

The parts being constructed and assembled as described, when water is permitted to enter through the opening 2 it passes upwardly through the passage-ways 3 and 4, that in the passage-way 3 entering the opening 5 through the port 6 and from thence through a channel 27 in the stem 7 of the baffle plate or spreader 8, where it strikes against the underside of the baffling member 16 and is deflected laterally and thereby caused to pass through the slots 18 into the cavity 15 in the underside of the nut 14, and from thence through the nipple to form the drinking stream. The opening in the nipple through which said stream passes may have vertical grooves 28 to make the drinking stream a bubbling one. From the passageway 4 the water passes upwardly and strikes the groove 10 in the underside of the baffling plate or spreader 8, the shape of which groove deflects the water downwardly and outwardly, causing it to pass around the periphery of said baffle plate or spreader which is spaced but a short distance from the body of the nozzle 1. Passing upwardly through the shell 11 this water makes its exit through the opening 12 in the top of said shell, said opening by the introduction of the nozzle 13 thereinto is reduced to a narrow annular channel thereby causing the water as it passes outward to impinge against the groove in the underside of the head 20 of the nipple, which deflects it downwardly into the groove 22 in the upper end of the shell and from thence it is forced outwardly and slightly upwardly in the form of an unbroken cir-

cular sheet. The height to which said sheet rises is sufficient to cause the water thereof to enter the face and nose of a drinker who attempts to put his lips against the nozzle while drinking. The spread of the circular sheet of water and the height to which it may rise are regulated by screwing the nipple closer to and from the shell 11, its tenuity is also adjusted in the same manner.

The lower end of the body 1 in Fig. 1 is formed with a polygonal collar 30 by means of which the nozzle may be held or turned when attaching the same to a pipe or other fitting.

In Figs. 1 and 2 of the drawings the openings in the sides of the body of the nozzle through which the regulating means 25 and 26 are adjusted are shown exposed. The nozzle may, however, be provided with a shield 31 as shown in Fig. 5, by elongating the body 1 slightly and changing the position of the polygonal collar 30 from the bottom of the body to a higher position as shown in the latter figure. The shield 31 has a polygonal flange or nut 32 on its lower end for rotating the same.

Having fully described our invention what we claim as new is:

1. A drinking fountain having a nozzle provided with two independent water passageways therein, an adjustable nipple having a flaring head and a central opening, means connecting said nipple with one of said passageways through which water from the said passageway may pass only to the nipple to form the drinking stream, and an encircling shell surrounding the lower end of said nipple and the connecting means having an opening in its upper end slightly larger than said nipple and encircling the same, forming thereby an annular outlet for the water passing through the second independent passageway and through said shell around the nipple connecting means to form an encircling sheet below the head of the nipple.

2. A drinking fountain having a nozzle, provided with two independent water passageways therein, an adjustable nipple having a flaring head and a central opening, means connecting said nipple with one of said passageways, through which water from said passageway may pass only to the nipple to form a drinking stream, said connecting means having an enlarged cavity therein, a baffling member in said cavity, and an encircling shell surrounding the lower end of said nipple and the connecting means having an opening in its upper end slightly larger than said nipple and encircling the same, forming thereby an annular outlet for the water passing through the second independent passageway and through said shell around the nipple connecting means to

form an encircling sheet below the head of the nipple.

3. A drinking fountain having a nozzle provided with two independent passageways therein, means for regulating the flow of water through each passageway, an adjustable nipple having a flaring head and a central opening, a separable removable two-part means connecting said nipple with one of said passageways through which water from said passageway may pass only to the nipple to form the drinking stream, said separable removable connecting means having an enlarged cavity between them, a baffling member in said cavity, and an encircling shell surrounding the lower end of said nipple and the connecting means having an opening in its upper end slightly larger than said nipple and encircling the same, forming thereby an annular outlet for the water passing through the independent passageway, and through said shell around the nipple connecting means to form an encircling sheet below the head of the nipple.

4. A drinking fountain comprising a nozzle, the body of which has two separate passageways formed therein, a nipple having a central opening and a flaring head, the under surface of which is provided with an annular groove, means connecting said nipple with said body through which water flows from one of said passageways out through the opening in the nipple to form the drinking stream, and a shell movably attached to the body surrounding the lower end of said nipple and said connecting means, said shell being smaller at its upper end and provided with an annular groove adapted to cooperate with the groove in the

head of said nipple, whereby water passing through the second passageway and the shell, and emerging from said shell in the form of a sheet beneath the flaring head of the nipple is deflected in an outward direction.

5. A drinking fountain comprising a nozzle the body of which has two separate passageways formed therein, a regulating means in each passageway, a nipple having a flaring head grooved on its under side and a central opening for the outlet of the drinking stream, a deflector connected to the nozzle body having a cavity in its upper side connected by a central opening with one of said passageways, and an annular groove in its under side the edges of which are slightly spaced from the nozzle body, a screw connection between said deflector and the nipple, and a shell connected to the base inclosing the lower part of the nipple, the deflector and the connection between them, said shell having an opening in its end slightly larger than the nipple, through which the latter passes, the upper edge of said shell having an annular groove to cooperate with the groove in the nipple head for spreading the water in a circular sheet that flows from the second passageway to the groove in the deflector and thence through the casing and out through the space around the nozzle.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

PHILIP MUELLER.

ANTON C. SCHUERMAN.

Witnesses:

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