

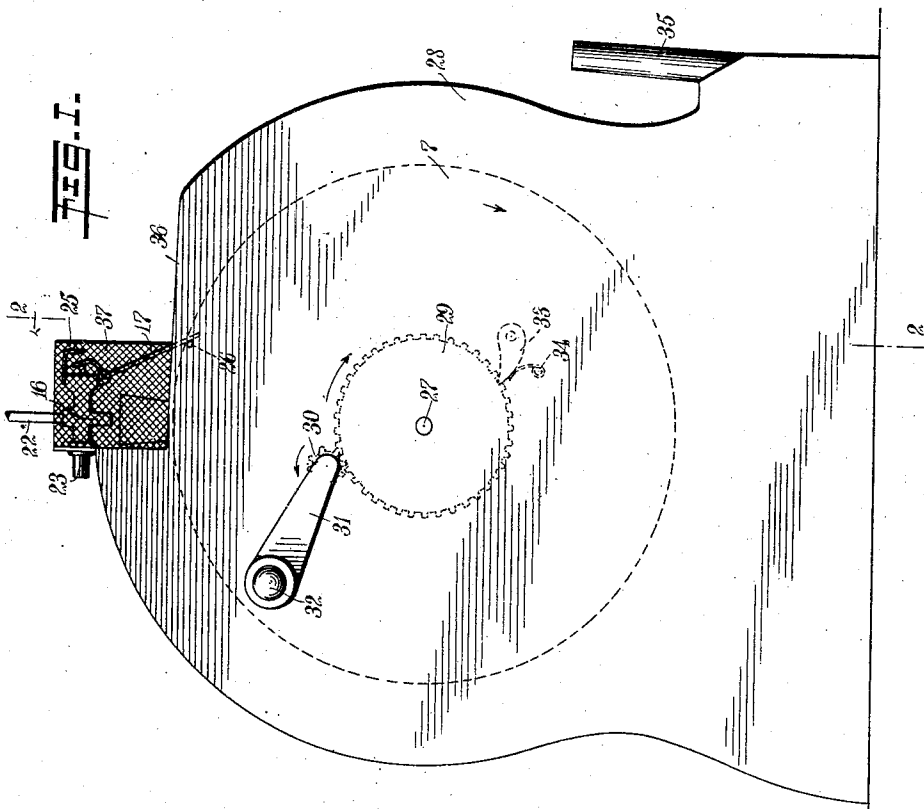
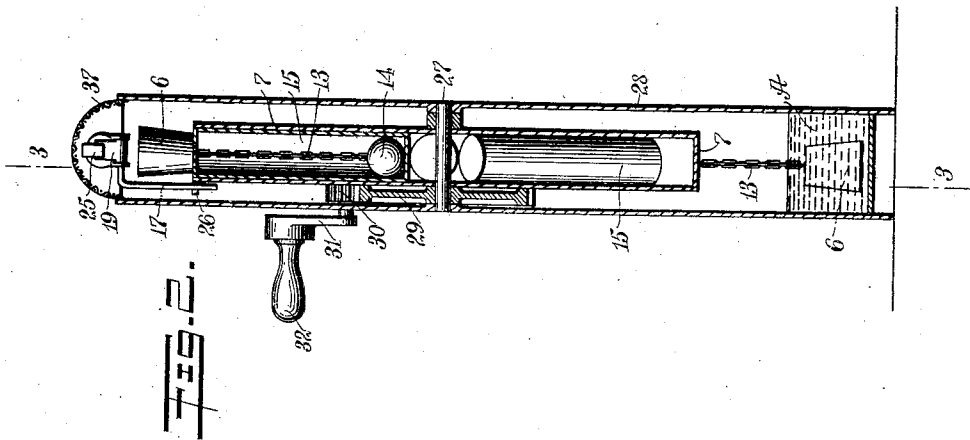
P. A. TORNWALL & R. M. BOYD.
DRINKING FOUNTAIN.

APPLICATION FILED JUNE 16, 1910.

985,861.

Patented Mar. 7, 1911.

2 SHEETS—SHEET 1.



WITNESSES:
G. Robert Thomas
G. R. Thomas

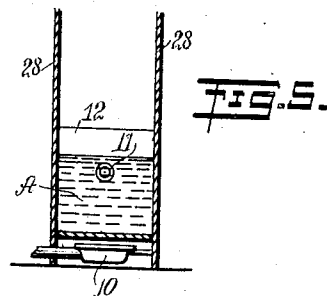
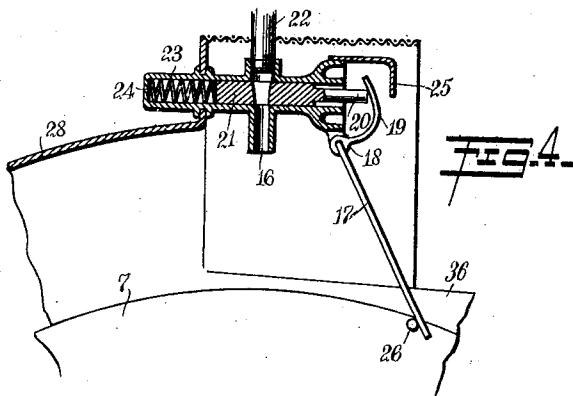
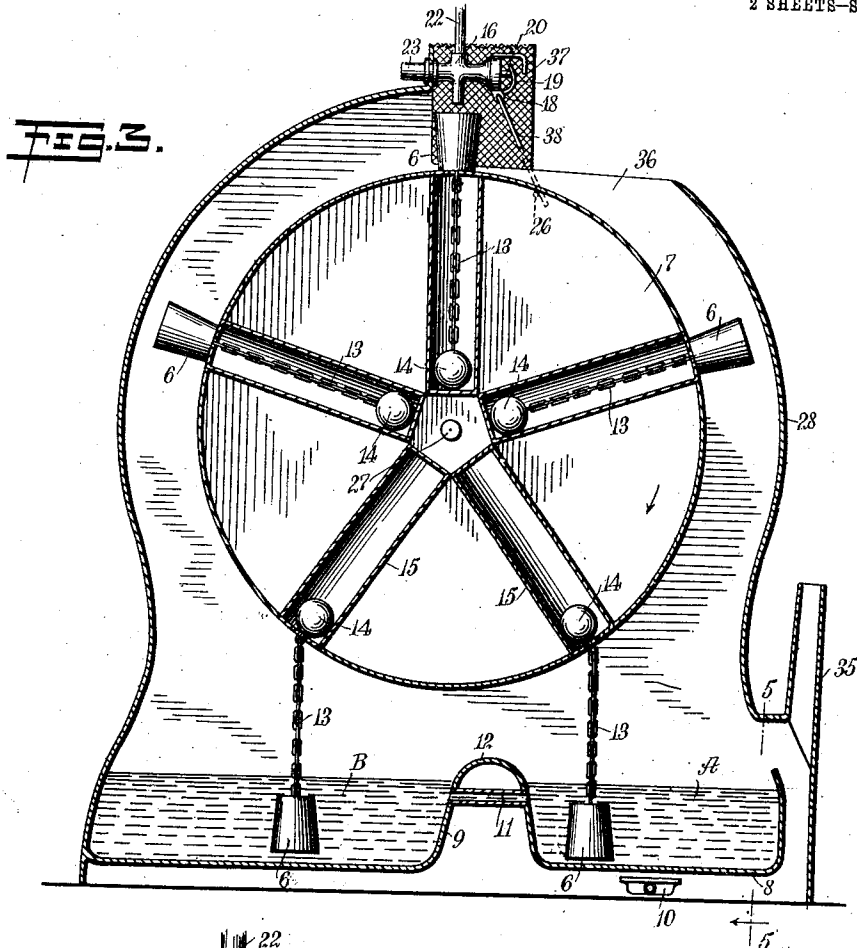
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2 SHEETS—SHEET 2.



WITNESSES:
 G. Robert Thomas
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UNITED STATES PATENT OFFICE.

PERY ALFRID TORNWALL AND RICHARD METTS BOYD, OF HOUSTON, MISSISSIPPI.

DRINKING-FOUNTAIN.

985,861.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Application filed June 16, 1910. Serial No. 567,132.

To all whom it may concern:

Be it known that we, PERY A. TORNWALL and RICHARD M. BOYD, citizens of the United States, and residents of Houston, in the county of Chickasaw and State of Mississippi, have invented a new and Improved Drinking-Fountain, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a fountain wherein the drinking cups are treated antiseptically during the intervals between periods of use; to provide a fountain of the character specified with means for removing grease or other foreign substances from a drinking cup between the periods of use; and to provide an operating mechanism for a fountain of the character specified which is simple, efficient and durable.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side elevation of a fountain constructed and arranged in accordance with the present invention; Fig. 2 is a vertical cross section of the same taken on the line 2—2 in Fig. 1; Fig. 3 is a vertical longitudinal section taken on the line 3—3 in Fig. 2; Fig. 4 is a detail view, on an enlarged scale and in vertical longitudinal section, of the delivery faucet and means for operating the same; and Fig. 5 is a detail view in vertical section taken on the line 5—5 in Fig. 3.

As at present constructed and arranged, the public fountains are a source of danger due to their propagation of many forms of disease where inoculation is incident to membranous contact. It is the purpose of the present invention to prevent the transmission of disease by providing in a fountain a series of cups 6, 6, the series being sufficiently large to permit a considerable interval between the time a cup is used and reused. By means of the mechanism illustrated, and due to the rotation of a drum 7, the cups are successively immersed in a solution 50 A contained in a basin 8 and a solution B contained in a basin 9. The solutions in the two basins may be of any character desired, and best suited to the function for which they are provided. As a rule, the solution 55 A employed by us is an antiseptic solution, that being selected which is best suited to

the removal of bacilli which might adhere to the cup. In many instances we employ very hot water, and in this case we use a heater 10, illustrated in the present drawings as a gas heater for maintaining the heat in the basin 8. It will be understood in this connection that there may be substituted for the gas heater any suitable heater employing gasolene, oil or electricity. To maintain the level of fluid in the two basins we connect the same by a small passage or pipe 11.

As the drum 7 is rotated it will be seen that each of the cups 6 is lowered from the surface of the drum upon which they normally rest, first, into the solution A, where they are permitted to remain, when, on the successive operation of the cup delivering mechanism, the cup which is arrested in the basin 8 is drawn over the dividing ridge 12 into the solution B. The solution B is usually a rinsing water, where all flavor or color of the antiseptic solution is removed. To lower the cups 6, 6, in this manner they are attached to their holding receptacle by flexible chains 13, 13. The chains 13, 13 are connected to weighted members or balls 14, 14.

When in the operation of the device the tubular runways 15, 15 in which the balls 14, 14 are deposited are inverted, the balls 14 are dropped to the lower edge of the runways 15, in which position of the balls the chains 13, 13 and cups 6, 6 attached thereto are extended in pendant form. When, however, on the uprise of the runways 15 the same are raised above the horizontal, the balls 14, 14 roll down the now inwardly declined runways 15. In thus moving to the center of the drum 7, the balls 14 draw inward the chains 13 and the cups 6 attached thereto.

When in the course of operation the cup 6 is brought under the faucet 16, the said cup is resting firmly on the periphery of the drum 7. In moving the cup 6 into receiving position under the faucet 16, the said faucet is opened by means of a lever 17. The lever 17 is pivoted in a lug 18, and is provided with a short arm 19, curved or bent into the path of a plunger 20. The plunger 20 has a guide body extension 21, which is perforated to provide a communicating passage between the faucet 16 and a supply pipe 22, as shown particularly in Fig. 4 of the drawings. The body extension

21 reciprocates within a casing 23, which forms a receptacle for a spiral compression spring 24.

The spring 24, when not restrained, extends the body extension 21 and the plunger 20 outward until the short arm 19 of the lever 17 rests against a hood 25 with which the device is provided. In this position of the plunger 20 and the extension 21, the passage contained in the said extension 21 is out of alinement with the supply pipe 22, and the flow of water therethrough and from the faucet 16 is discontinued. It is to permit the said flow from the pipe 22 to the faucet 16 that the lever 17 is elongated and depended into the path of pins 26. The pins 26 are set out from the side of the drum 7. There is a pin 26 disposed in advance of each of the runways 15, and therefore in advance of the cups 6, 6 carried in line with the said runways. The disposition of the pins 26, 26 is such that they impinge upon the lever 17 prior to the cups 6, 6 passing under the faucet 16. When, however, the drum 7 has been rotated sufficiently to place the cups 6 under the faucet 16, the pins 26 have been moved sufficiently to place the plunger 20 in position where the flow from the supply pipe 22 is uninterrupted.

When, in the course of operation, the cup is moved from the filling to the delivering position, the lever 17 passes over the pins 26 and out of contact therewith. In this position, there being nothing to restrain the spring 24, the said spring projects the plunger 20 and extension 21 outward in the casing 23 until the flow of water is suspended. It will be understood that this operation of cutting off the water is rapid, and therefore waste is limited. The material from which the lever 17 is constructed is preferably resilient in character to prevent the bending of any of the connected devices.

The drum 7 is fixedly mounted on a shaft 27, which is rotatively mounted in suitable bearings in an outer casing 28. Fixedly mounted on the shaft 27 is a large gear wheel 29, with which is meshed a small pinion 30. The wheel 29 and pinion 30 are both contained within the casing 28, the pinion 30 being mounted on a suitable short shaft having bearings in the side of the casing 28. Fixedly connected to this short shaft is a crank 31, from the side of which is extended a handle 32. It is by rotating the crank 31 that the drum 7 is manipulated to deliver the cups 6, 6 filled with the fluid from the supply pipe 22. Mounted in pivotal bearings on the side of the casing 28 is a pawl 33. The pawl 33 is actuated by a spring 34 to insert the tooth of the said pawl within the teeth of the wheel 29. This device prevents the rotation of the drum 7 in any other than the desired direction.

The numeral 35 designates the pipe or flue for the escapement of the heated air or gases generated by the heater 10.

The casing 28 is cut away at the top to form a squared cup delivery opening 36 to the right of or delivery side from the faucet 16 and a house 37. The house 37 is provided to prevent handling of the cups prior to the same being filled. Any suitable covering for the front of the house 37 may be provided. Further, the house 37 may be constructed from any desired material, that shown in the drawings being wire gauze. To prevent handling of the cups when the house 37 is not provided with a door we have provided an apron 38. The apron 38 is hinged to the pivot shaft of the lever 17.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. A drinking fountain, comprising a series of drinking cups; a rotary supporting member for said cups; flexible connections between said cups and said supporting member; and a basin disposed in the path of said cups, said basin being adapted to retain an antiseptic solution as a bath for said cups.

2. A drinking fountain, comprising a plurality of drinking cups; a rotary supporting member for said cups having radially disposed runways therein; a gravity member loosely mounted in said runways; flexible connections between said gravity member and said cups; and a basin adapted to receive an antiseptic solution bath, disposed below said rotary member and removed therefrom a distance not more than the length of said connections to immerse the cups when depended from said gravity member.

3. A drinking fountain, comprising a plurality of drinking cups; a rotary supporting member for said cups having radially disposed runways therein; a gravity member loosely mounted in said runways; flexible connections between said gravity member and said cups; and a plurality of basins divided to hold various solutions for antiseptic treatment and rinsing, said basins being removed from said rotary member by the length of said flexible connections.

4. A drinking fountain, comprising a rotary drum having radially disposed therein a series of runway channels; a plurality of drinking cups adapted to rest upon the periphery of said drum; a plurality of weighted members slidably mounted in said channels and provided with flexible connectors attached to said cups, said weighted members being adapted to hold the cups on the periphery of said drum when the channel is disposed in a vertical position above the rotary axes; and a plurality of basins disposed below said drum and removed

therefrom the length of said flexible connectors between said cups and said weighted members.

5 5. A drinking fountain, comprising a rotary drum having radially disposed therein a series of runway channels; a plurality of drinking cups adapted to rest upon the periphery of said drum; a plurality of weighted members slidably mounted in said channels and provided with flexible connectors attached to said cups, said weighted members being adapted to hold the cups on the periphery of said drum when the channel is disposed in a vertical position above the rotary axis; a plurality of basins disposed below said drum and removed therefrom the length of said flexible connectors between said cups and said weighted members; a water supply embodying a faucet disposed above said drum at a cup-filling station; a mechanism for opening and closing said faucet; and connecting means between said faucet operating mechanism and said drum for opening the faucet when the said drum is disposed in certain positions.

6. A drinking fountain, comprising a rotary drum having radially disposed therein a series of runway channels; a plurality of drinking cups adapted to rest upon the periphery of said drum; a plurality of weighted members slidably mounted in said channels and provided with flexible connectors attached to said cups, said weighted members being adapted to hold the cups on the periphery of said drum when the channel is disposed in a vertical position above the rotary axis; a plurality of basins disposed below said drum and removed therefrom the length of said flexible connectors between said cups and said weighted members; a liquid supply embodying a faucet disposed at a cup-filling station and fixedly mounted in the casing of said fountain; a spring actuated plunger valve for controlling the opening of said faucet; a lever pivotally mounted on said faucet in operative relation with said plunger, said lever having an arm extended toward the said drum; and a pin mounted on said drum adapted to impinge upon said arm to operate the lever to shift the valve to delivering position in said faucet.

7. A drinking fountain, comprising a rotary drum having radially disposed therein a series of runway channels; a plurality of drinking cups adapted to rest upon the periphery of said drum; a plurality of weighted members slidably mounted in said channels and provided with flexible connectors attached to said cups, said weighted members being adapted to hold the cups on the periphery of said drum when the channel is disposed in a vertical position above the rotary axis; a plurality of basins disposed below said drum and removed therefrom the length of said flexible connectors between said cups and said weighted members; and a heating apparatus disposed below one of said basins for sterilizing said cups when precipitated in said basin.

8. A drinking fountain, comprising a rotary drum having radially disposed therein a series of runway channels; a plurality of drinking cups adapted to rest upon the periphery of said drum; a plurality of weighted members slidably mounted in said channels and provided with flexible connectors attached to said cups, said weighted members being adapted to hold the cups on the periphery of said drum when the channel is disposed in a vertical position above the rotary axis; a plurality of basins disposed below said drum and removed therefrom the length of said flexible connectors attached to said cups, said weighted members; a water supply embodying a faucet disposed above said drum at a cup-filling station; a mechanism for opening and closing said faucet; connecting means between said faucet operating mechanism and said drum for opening the faucet when the said drum is disposed in certain positions; and a heating apparatus disposed below one of said basins for sterilizing said cups when precipitated in said basin.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

PERY ALFRID TORNWALL.
RICHARD METTS BOYD.

Witnesses:

R. E. JOHNSON,
A. L. JORDAN.