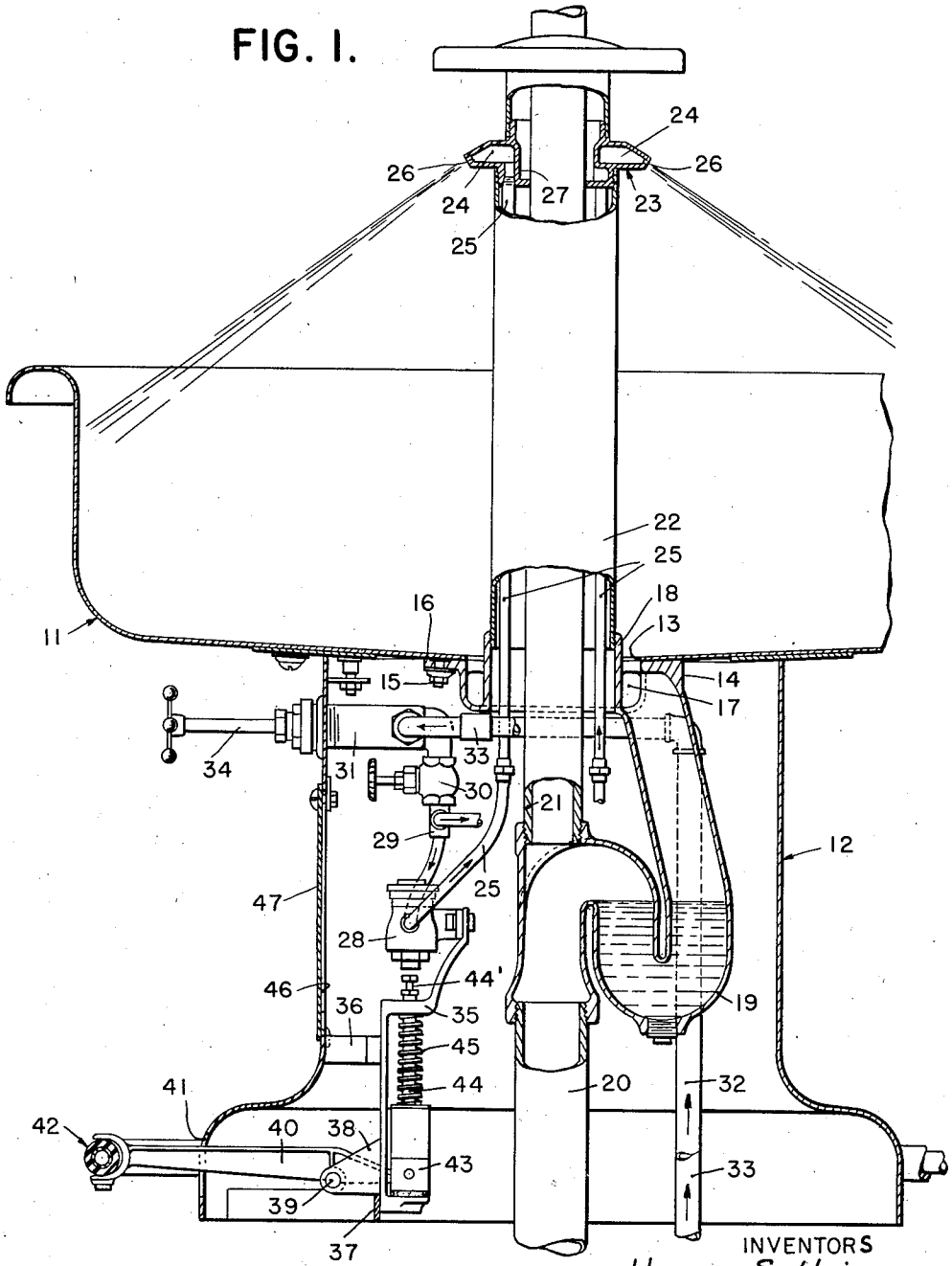
Aug. 18, 1942. H. E. HEINE ET AL 2,293,544

WASH FOUNTAIN

Filed June 10, 1940 2 Sheets-Sheet 1

FIG. 1.



INVENTORS
Herman E. Heine
William A. Winters
BY
Charles & French
ATTORNEYS

Aug. 18, 1942. H. E. HEINE ET AL 2,293,544

WASH FOUNTAIN

Filed June 10, 1940 2 Sheets-Sheet 2

FIG. 3.

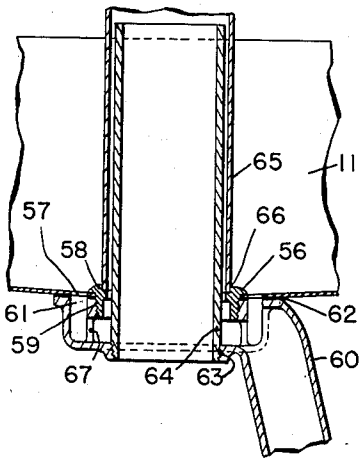


FIG. 6.

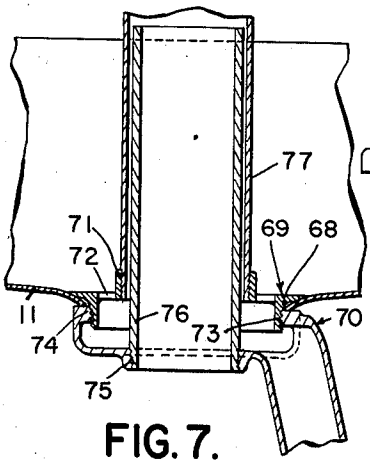


FIG. 7.

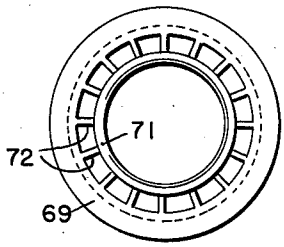


FIG. 4.

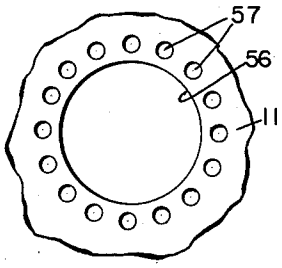


FIG. 5.

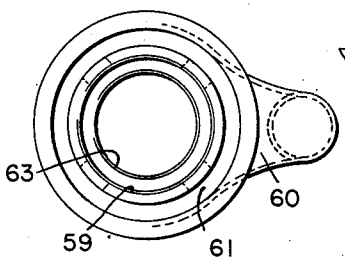


FIG. 8.

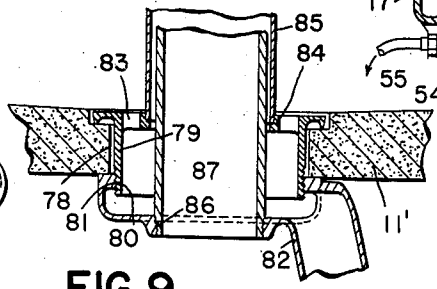


FIG. 2.

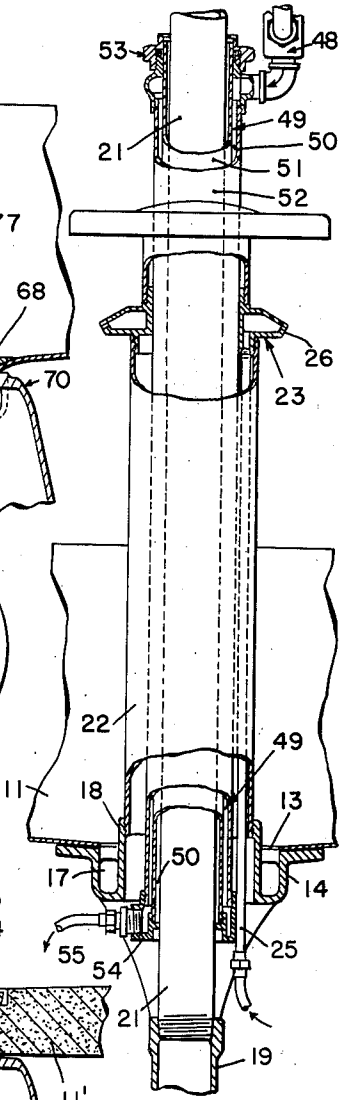


FIG. 9.

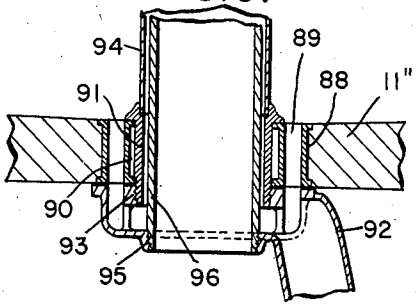
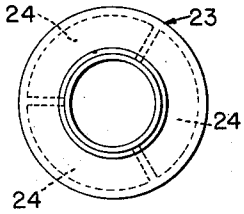


FIG. 10.



INVENTORS
Herman E. Heine
William A. Winters
BY
Charles & French
ATTORNEYS

Patented Aug. 18, 1942

2,293,544

UNITED STATES PATENT OFFICE

2,293,544

WASH FOUNTAIN

Herman E. Heine and William A. Winters, Milwaukee, Wis., assignors to Bradley Washfountain Co., Milwaukee, Wis., a corporation of Wisconsin

Application June 10, 1940, Serial No. 339,784

10 Claims. (Cl. 4—191)

The invention relates to washfountains and more particularly to an arrangement for the conduction of drainage water from and the supply of fresh water to a fountain having an elevated centrally disposed spray head.

Heretofore it has been customary to use parts of the vent or drain fittings as the walls for parts of the fresh water supply with the result that if these walls crack or break down, the fresh water supply will become contaminated by contact with waste gases or drain water. One object of the present invention is to provide an arrangement in which the fresh water supply is separated from both the drain passage and the vent by an entirely separate passage and air space or spaces between said supply and drain and vent passages.

A further object of the invention is to provide a wash fountain with a trap having a centralized vent passage with the fresh water supply also centrally disposed and radially spaced from said vent passage.

A further object of the invention is to provide a wash fountain having vent, drain, and fresh water supply passages which particularly are well adapted for sectionalized control through individual foot controlled valves.

Heretofore in fountains of this type the drain passages have usually been formed as vertically extending passages in the spray head supporting tube, and this restricts the areaway in the tube for other pipes and has been overcome in the present invention by providing the drain passages outside the area of the head supporting tube and in the bottom of the basin or in a member clamped directly thereto.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a vertical sectional view through a wash fountain embodying the invention, parts being broken away and parts being shown in section;

Fig. 2 is a detailed view of certain modifications of the structure shown in Fig. 1, parts being broken away and parts being shown in section;

Fig. 3 is a detailed vertical sectional view showing certain modifications in the drain connection with the bowl;

Fig. 4 is a top plan view of the drain passages for the bottom of the bowl shown in Fig. 3;

Fig. 5 is a top plan view of the drain fitting shown in Fig. 3;

Fig. 6 is a detailed vertical sectional view showing another form of drain connection;

Fig. 7 is a top plan view of the spud used in Fig. 6;

Fig. 8 is a detailed sectional view showing a drain connection for a cast stone bowl or basin;

Fig. 9 is a detailed sectional view showing another form of drain connection;

Fig. 10 is a top plan view of the sectional spray head shown in Fig. 1.

Referring to Fig. 1, the numeral 11 designates a basin which may be of circular, semi-circular, or other suitable form of metal, stone, or composition material mounted on a support or pedestal 12 of metal, stone, or ceramic material.

The basin 11 is here shown as formed of sheet metal provided in its bottom with a centrally located drain opening 13 which communicates with a drain fitting 14 clamped against the bottom side of said basin at said opening by means of bolts 15, there being a rubber packing 16 interposed between said basin and fitting.

The fitting 14 is formed to provide an annular drain passage 17 with an upstanding central cylindrical wall portion 18 which projects upwardly into the basin, and it also has a trap 19 formed integral therewith or connected thereto and to the waste pipe 20 and to a vent pipe 21, the pipes 20 and 21 being disposed on the same axis with the pipe 21 centrally disposed relative to the wall 18 and the opening 13 surrounding said wall.

The wall 18 is threaded at its upper end to take the lower threaded end of a tubular standard 22 which supports a spray head 23 of any suitable construction. As herein shown and also in Fig. 10, the spray head 23 is formed to provide a plurality of separate compartments 24, each of which has its own tempered water supply pipe 25 and a series of outwardly and downwardly directed spray passages 26. The spray head 23 has a hollow central portion 27 through which the vent pipe 21 passes. Each pipe 25 connects with an individually operated cut off valve 28, and these valves are connected to a common fitting or manifold 29 which connects with a shut off valve 30 that in turn connects with a mixing valve 31 of suitable construction having a cold water supply pipe 32 and a hot water supply pipe 33 connected thereto, said mixing valve having an exteriorly disposed operating handle 34, the valve itself, and the valves 30 and 28 being all located in the space within the pedestal.

Each of the valves 28 is mounted on a bracket 35 connected to a bracket part 36 secured to the

wall of the pedestal, and at its lower end the bracket has a base member portion 37 formed integral therewith or connected thereto and also has spaced ears 38 carrying a pivot pin 39 for a foot operated treadle lever 40 which extends through a slot 41 in the pedestal and is connected exterior of the pedestal to a sectionalized foot rail 42, and at its inner end 43 has a head engaging the lower end of a tappet member 44 which is normally moved to retracted position by a spring 45 and whose upper end 44' is adapted to engage the lower end of a poppet valve of any suitable construction, not shown in detail but shown in the application of Howard A. Mullett, Serial No. 235,735, filed October 19, 1938. The valve 30 is always open unless it is necessary to shut off the tempered water supply because of repairs to any of the valves 28.

With this construction downward pressure on the rail 42 causes the lever 40 operated by this section of the rail to move the tappet 44 upwardly to open the valve 28 and allow tempered water to flow into that section 24 of the spray head controlled by said valve which thereupon delivers a series of fine jets of water from the spray openings 26 into the basin, the waste water flowing to the opening 13 and thence through the drain 17, trap 19 to the waste water pipe 20. The pedestal has one or more inspection openings 46 covered by removable covers 47.

In some instances it may be desirable to provide an overhead fresh water supply, and in such a case we have provided the structure shown in Fig. 2 in which the bowl 11 provided with the drain opening 13, the drain and trap fitting 14, the tubular support 22, the sectional spray head 23, and the vent pipe 21 are the same as the first described construction and similarly designated.

A supply of tempered water from the hot and cold inlets associated with a mixing valve 48 is conducted to an annular conduit 49 surrounding the vent pipe 21 and spaced therefrom by an air space 50, said conduit including the spaced pipes 51 and 52 connected at their upper ends to a cap structure 53 and at their lower ends to a cap fitting 54 from which a pipe 55 leads to the valve 30 (shown in Fig. 1) and thence to the manifold 29 and individual valves 28, if such are used, from which the tempered fresh water is conducted by the pipes 25 which extend up through the space between the conduit 49 and the support 22 and wall 18 of the drain and lead to the different sections of the spray head 23 as in the first described construction, it being noted that both the conduit 49 and the pipes 25 are separated both from the drain passage and the vent pipe by an air space so as to prevent contamination of the fresh water supply. Also in the structures shown in Figs. 1 and 2 the vent pipe 21 is not itself a water wall forming member.

In Figs. 3 to 7, inclusive, we show two different forms of drain connections that may be used in place of the drain member 14 and its mounting on the bottom of the basin.

In Figs. 3 to 5 we show the basin 11 provided with a central opening 56 and a series of drain holes 57 radially spaced from said openings. A threaded spud 58 projects through the opening 56 and is used as a clamping nut to engage the internally threaded upper end 59 of a drain and trap fitting 60 which is provided with an annular upper inlet 61 that registers with the holes 57 when said fitting is screwed up into sealing engagement with the bottom of the basin 11 and more particularly against a rubber sealing strip 62 interposed between said basin and fitting. The fitting 60 has a threaded opening 63 aligned with the opening 59 thereof so as to facilitate engagement with the spud, and a separator pipe 64 is mounted at its lower end in said opening and extends up to a point above the level of the top of the basin. The spray head supporting standard 65 is mounted at its lower end in the recessed upper end 66 of the spud 58. The upper threaded end 59 forms a ring which is connected to the body of the fitting by bridge pieces 67, Fig. 5 showing a plan view of this fitting which may have a trap such as a trap 19 formed integral therewith or connected thereto.

In Figs. 6 and 7 we show the basin 11 as provided with a central opening 68 with a downturned or curved edge which is clamped between a spud 69 and a drain and trap fitting 70. The spud 69 is shown in plan in Fig. 7 and is provided with an upstanding internally threaded cylindrical portion 71, a series of radially disposed drain openings 72 and a depending externally threaded cylindrical portion 73 which engages the upper threaded opening 74 of the fitting 70, said fitting also having a threaded opening 75 aligned with the opening 74 so as to facilitate engagement with the spud and a separator pipe 76 is mounted at its lower end in said opening and extends up to a point above the level of the top of the basin. The spray head supporting standard 77 is mounted at its lower end in the threaded part 71 of the spud 69.

In Fig. 8 we show a drain fitting for a stone or terrazzo composition basin 11' having a central opening 78 with a recessed top in which a spud 79 is mounted and provided with an externally threaded lower end 80 which engages the internally threaded opening 81 of a drain and trap fitting 82 which is identical to the fitting 70 shown in Fig. 6. The spud 78 is provided with a series of radially spaced holes 83 similar to the holes 72 of the spud 69 and with an annular seat 84 for a spray head supporting tube 85. A threaded opening 86 in the fitting 82 is similar to the opening 75 and has the separator pipe 87, similar to the pipe 76, in threaded engagement therewith.

In Fig. 9 we show a drain fitting for cast stone basin 11'' in which a centrally located metal drain conduit 88 is inset in the basin during the casting process and is provided with a series of openings 89, similar to the openings 72, and has a central opening 90 in which a spud 91 is mounted. A drain and trap fitting 92 identical with the drain member 60 previously described is clamped in sealing engagement with the bottom of the conduit 88 by a threaded connection with the lower threaded end 93 of the spud 91 which, as in the form shown in Fig. 3, has the spray head supporting tube 94 mounted in the upper recessed end thereof. The threaded opening 95 in the fitting 92 is similar to the opening 63 and has the lower end of the separator pipe 96 in threaded engagement therewith.

With all the different forms of drain fittings herein shown the arrangements for the vent pipe 21 and the fresh water supply pipes shown in Figs. 1 and 2 may be employed.

It is also to be understood that where sectional spray heads are not used that but a single fresh or tempered water supply pipe extending up from below directly to the spray head as in the form shown in Fig. 1 but without the valve 28 and its operating mechanism or an overhead supply similar to the form shown in Fig. 2 but with a

direct connection with the spray head through the direct connection of said head with a conduit such as the conduit 49 may be used.

We desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claims.

What we claim as our invention is:

1. In a washfountain, the combination of a basin having centrally located spaced drain passages provided in its bottom, a drain conduit secured to the bottom of the basin and communicating with said passages, a spray head for directing washing water from an elevated central point into the basin, a tube extending upwardly from the bottom portion of the basin centrally thereof and forming a water wall, said drain passages lying outside the area of said tube, said drain conduit also provided with a part forming a centrally disposed water wall spaced from the wall of said tube, and a fresh water conduit, separated from the centrally disposed water wall of said drain conduit by an air space, for supplying said spray head.

2. In a wash fountain, the combination of a basin having centrally located spaced drain passages provided at the bottom of the basin, a drain conduit secured to the bottom of the basin and communicating with said passages, a spray head for directing wash water from an elevated central point into the basin, a tube extending from the bottom portion of the basin centrally thereof and forming a water wall, said drain conduit also provided with a part forming a centrally disposed water wall, a conduit for supplying said spray head with fresh water, said drain conduit having a trap associated therewith, and a vent pipe extending upwardly from said trap and centrally disposed relative to said drain conduit and mounted in air spaced relation relative to the water wall portions thereof.

3. In a wash fountain, the combintion of a basin having spaced drain passages provided at the bottom central portion of the basin, a drain conduit secured to the bottom of the basin and communicating with said passages, a spray head for directing wash water from an elevated central point into the basin, a tube extending from the bottom portion of the basin centrally thereof and forming a water wall, said drain conduit also provided with a part forming a centrally disposed water wall, a fresh water conduit disposed in air spaced relation to said drain conduit for supplying said spray head, said drain conduit having a trap associated therewith, and a vent pipe extending upwardly from said trap and mounted in air spaced relation to the water wall portions of said drain conduit and to said fresh water conduit.

4. In a wash fountain, the combination with a basin having a drain passage provided at the bottom central portion of the basin, a drain conduit secured to the bottom of the basin and communicating with said passages, a spray head for directing wash water from an elevated central point into the basin, said drain conduit having a centrally disposed hollow water wall portion, a support for said spray head supported on said centrally disposed wall portion, a fresh water conduit disposed in air spaced relation to said drain conduit and extending upwardly to said spray head, said drain conduit having a trap associate therewith, and a vent pipe extending upwardly from said trap and mounted in air spaced relation to the water wall portions of said drain conduit and to said fresh water conduit.

5. In a washfountain, the combination with a basin and centrally disposed spraying means for directing wash water into the basin, of a hollow support for said spraying means extending centrally from the bottom of the basin, a drain for the basin comprising drain passages surrounding the base of said hollow support and disposed entirely outside of the area of the same, a collector chamber beneath said passages having a centrally disposed separator tube portion extending into and in spaced relation to said hollow support, and a fresh water conduit for supplying water to said spraying means extending through said support and separator tube portion of said drain passage in air spaced relation to the same.

6. In a wash fountain, the combination with a basin and spraying means for directing wash water into said basin, of a hollow support for said spraying means extending centrally from the bottom of the basin, a drain passage concentric with said support and having communication with the basin through the bottom thereof, said communication being entirely outside the area of said support, said drain passage also having a centrally disposed separator tube portion projecting into said support, and a fresh water conduit for supplying water to said spraying means extending through said support and centrally disposed separator tube portion of said drain passage in air spaced relation to the same.

7. In a wash fountain, the combination of a wash basin having a hollow tubular portion rising from the central portion of the bottom of said basin and providing a water wall, said basin having a drain co-axial with said tubular portion and whose outlet in the bottom of the basin is entirely outside the areaway of said tubular portion, spraying means above the basin for directing water into the same, and a fresh water supply pipe for said spraying means extending through said tubular portion in air-spaced relation thereto.

8. In a wash fountain, the combination of a wash basin having a central opening, concentric hollow tubes projecting upwardly within the area of said opening, means forming a drain passage in the bottom of said basin coaxial with said tubes and having an inlet entirely outside the areaway of said tubes, spraying means above the basin for directing water into the same, and a fresh water supply pipe for said spraying means extending through the inner of said tubes in air-spaced relation therewith.

9. In a wash fountain, the combination of a wash basin having a central drain opening, a drain fitting secured to the bottom of the basin and having a centrally disposed tubular portion projecting upwardly into the basin and forming an inner water wall within said fitting, and a tube secured to said tubular portion and extending above the basin and forming a water wall and a continuation of said tubular portion, the drain inlet for said fitting lying without the areaway of said tube, spraying means above the basin for directing water into the same, and a fresh water supply pipe for said spraying means extending through said tubular portion of said fitting and said tube in air-spaced relation therewith.

10. In a wash fountain wherein the wash water is sprayed from a central location toward the outer side of a basin, the combination with the basin having a centrally disposed drain opening,

of an apertured drain fitting mounted in said drain opening and having a central opening, a tubular member extending upwardly from said central opening and forming a water wall, a second drain fitting secured to said apertured drain fitting and having a central opening having a tubular part extending upwardly therefrom forming a water wall spaced from and surrounding said tubular member, said second drain fitting communicating directly with the bottom of said basin, and a fresh water conduit for the washing water extending through said drain fittings and said tubular parts in air spaced relation thereto.

HERMAN E. HEINE.
WILLIAM A. WINTERS.