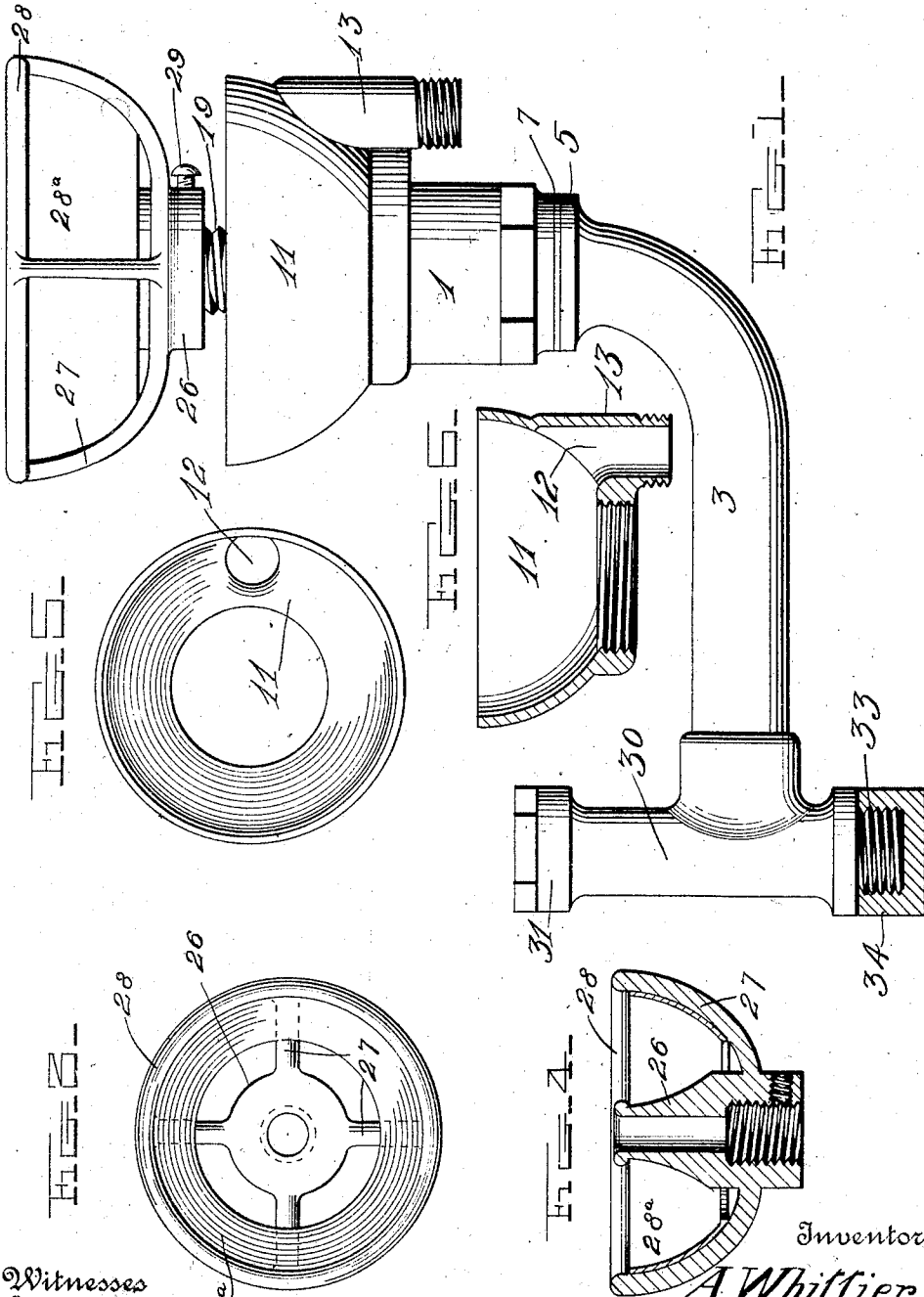


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 DRINKING FOUNTAIN.
 APPLICATION FILED OCT. 31, 1910.

1,022,572.

Patented Apr. 9, 1912.
 2 SHEETS—SHEET 1.



Witnesses
 G. R. Pierce,
 C. B. Hopkins

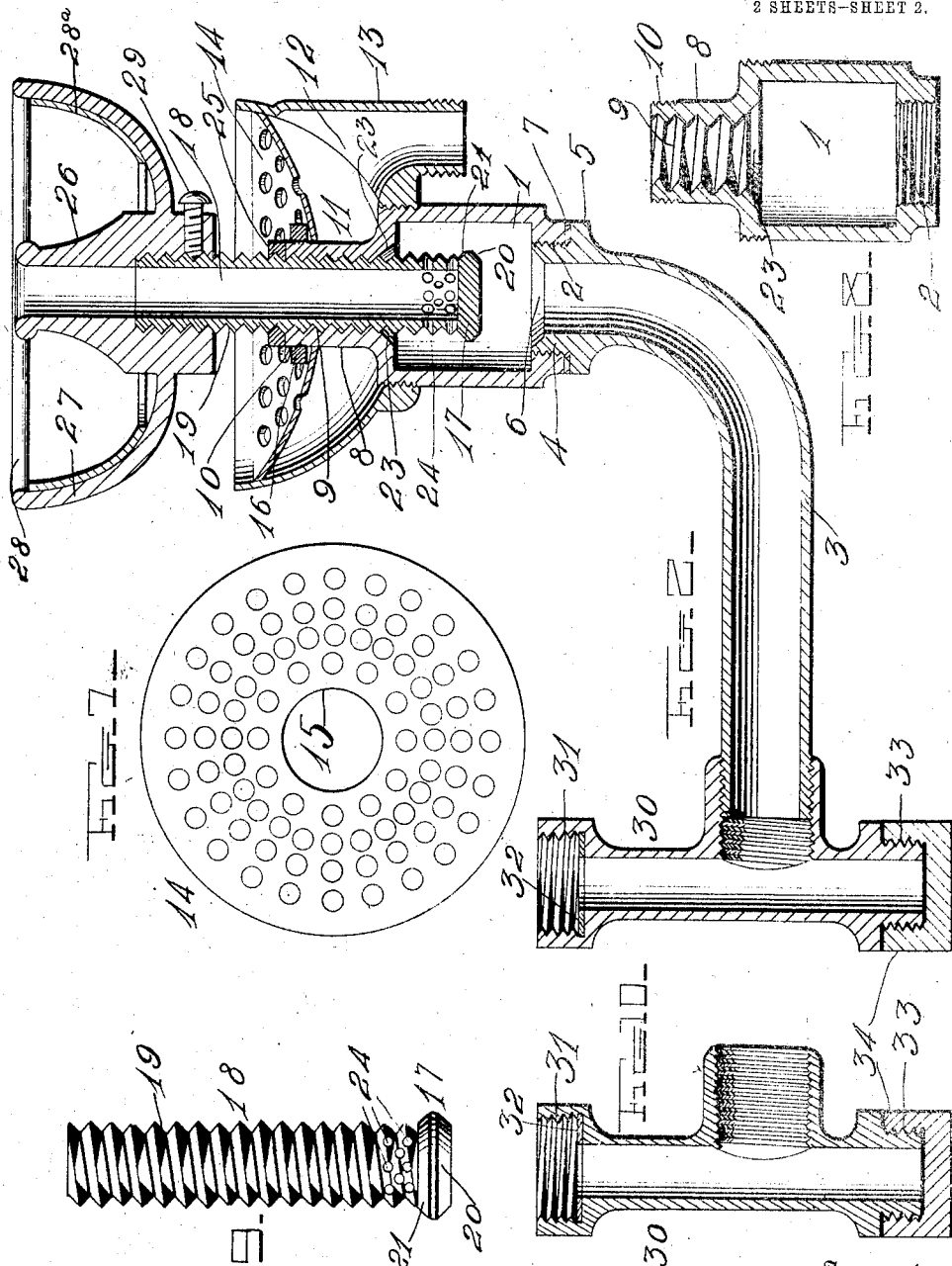
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 By *A. B. Wilson & Co.*
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UNITED STATES PATENT OFFICE.

ARTHUR WHITTIER, OF EAST WALPOLE, MASSACHUSETTS.

DRINKING-FOUNTAIN.

1,022,572.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed October 31, 1910. Serial No. 589,943.

To all whom it may concern:

Be it known that I, ARTHUR WHITTIER, a citizen of the United States, residing at East Walpole, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Drinking-Fountains; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in drinking fountains and particularly to the class known as bubble fountains.

One object of the invention is to provide a drinking fountain of this character from which a drink may be obtained without bringing the lips into contact with any of the parts of the fountain.

Another object is to provide a drinking fountain having means whereby the use of a cup or other receptacle for obtaining water therefrom is prevented.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a side view of a drinking fountain constructed in accordance with my invention; Fig. 2 is a central vertical section of the same; Fig. 3 is a plan view of the discharge nozzle and guard ring of the fountain. Fig. 4 is a vertical sectional view of the same; Fig. 5 is a plan view of the catch basin of the fountain; Fig. 6 is a sectional view of the same; Fig. 7 is a plan view of the strainer arranged in the catch basin; Fig. 8 is a vertical sectional view of the valve chamber of the fountain; Fig. 9 is a side view of the combined valve and feed pipe of the fountain; Fig. 10 is a sectional view of the faucet attaching member of the fountain.

In the embodiment of the invention I provide a valve casing 1 having in its lower end a water inlet opening 2 into which is adapted to be screwed the inner end of a water supply pipe 3. The pipe 3 may be connected directly to a service pipe or as here shown may be connected to a faucet. The outer end of the pipe 3 is provided with an enlarged head 4 having arranged thereon an annular exteriorly threaded head hav-

ing formed thereon an annular flange 5. The inner edge of the opening through the head 4 is beveled as shown to form a valve seat 6. The valve casing 1 is adapted to be screwed onto the threaded head 4 of the pipe 3 and into engagement with the flange 5 and if desired a washer 7 may be arranged on the flange thereby forming a fluid tight joint between the valve casing and the pipe 3.

The upper portion of the valve casing is exteriorly threaded and on the upper end of the casing is formed a reduced neck 8 which is provided on its inner surface throughout its entire length with coarse screw threads 9 and on its upper end is exteriorly threaded as at 10. On the threaded outer surface of the valve casing is screwed the lower end of a bowl shaped catch basin 11 in one side of which is formed a drain passage 12 having a downwardly projecting discharge nipple 13 to the lower end of which is adapted to be connected a drain pipe (not shown). Arranged in the catch basin 11 is a perforated strainer plate 14 in the center of which is formed an aperture 15 through which the upper end of the neck 8 projects. The outer edges of the plate 14 closely engage the inner walls of the catch basin 11 and said plate is securely fastened in the basin by means of a nut 16 which is screwed into engagement with the threads 10 on the upper end of the neck and into engagement with the upper side of the plate 14 thereby depressing or forcing the inner portion of the plate downwardly so that the latter is dished or concaved as shown. The strainer plate 14 serves the two-fold purpose of preventing any foreign matter which may be thrown into the catch basin from entering and clogging the discharge opening 12 therein and also serves to prevent the water from being dipped from the catch basin by a cup or other receptacle.

Arranged in the valve casing 1 is a double valve 17 having a tubular stem 18 open at its upper end and provided on its outer side with coarse screw threads 19 whereby said stem is adapted to be screwed up and down in the interiorly threaded neck 8 of the valve casing. The valve 17 is provided on its outer edge with a lower annular beveled surface 20 and an upper annular beveled surface 21. When the valve stem is screwed down in the neck 8 a sufficient ex-

tent the lower beveled surface 20 of the valve will be brought into engagement with the seat 6 formed on the upper end of the head 4 of the water supply pipe 3 thereby closing this end of the pipe and cutting off the supply of water to the fountain.

When the valve stem is screwed upwardly a sufficient extent in the neck 8 of the valve casing the upper beveled surface 21 of the valve will be brought into engagement with an annular valve seat 23 formed by beveling the lower inner end of the neck 8 as shown. When the valve is thus brought into engagement with the seat 23 the water will also be cut off from the fountain. In the lower portion of the tubular valve stem 18 are formed a series of small perforations 24 through which the water passes from the valve casing 1 into the tubular stem of the valve and through the same to the discharge nozzle hereinafter described. By screwing the tubular valve stem 18 downwardly to a greater or less extent more or less of the perforations 24 will be uncovered thereby permitting more or less water to pass into the valve stem thus regulating the amount and pressure of the water flowing from the fountain. On the tubular valve stem is screwed a stop nut 25 which is adapted to be adjusted on the stem so that when the latter is screwed downwardly in the neck 8 of the valve casing, said nut will come into engagement with the upper end of the neck and thus limit the opening of the valve and permit the latter to be adjusted for different water pressures.

On the upper end of the tubular valve stem 18 is screwed a discharge nozzle 26 on which is formed a series of radially disposed upwardly curved arms 27 the upper ends of which are formed integral with a combined guard ring and hand wheel 28. The nozzle 26 when screwed onto the upper end of the tubular valve stem is securely locked thereto by a set screw 29. The guard ring 28 is provided to prevent the lips from being engaged with the upper end of the discharge nozzle or other metal parts of the fountain when drinking therefrom and also serves as a means for screwing the tubular valve stem 18 and valve 17 upwardly and downwardly in the valve casing thus permitting the valve to be closed when not in use and readily opened to the desired extent to cause the water to bubble or discharge from the upper end of the nozzle to a sufficient height for drinking. In the supporting arms 27 of the guard ring 28 is arranged an annular shield or guard plate 28^a which prevents the water from being caught in a receptacle when falling into the catch basin 11.

In closing the valve temporarily or after a drink has been obtained therefrom the valve is screwed upwardly by the hand wheel until the perforated lower end thereof

is drawn into the neck of the valve casing and the beveled upper surface 21 of the valve is brought into engagement with the valve seat 23. When it is desired to close the valve permanently, as for instance, if the upper end of the valve stem and nozzle should become broken off, the stop nut 25 may be screwed up on the valve stem and the latter screwed downwardly until the lower beveled surface 20 of the valve is brought into engagement with the valve seat 6 formed on the upper end of the water supply pipe 3 thus shutting off the water before the same enters the valve casing. No matter which way the casual user may turn the hand wheel after he has had his drink, the valve will quickly be forced against one of the seats so that the supply will be cut off; and again when the casual user desires to secure a drink, there is only one way in which he can possibly turn the hand wheel to open the valve because if he seeks to turn it the other way he will simply tighten the valve on its seat. Those who have provided utilities of this character for use of the general public will appreciate the importance of so constructing the mechanism that the most ignorant person can use it without being able to misuse it, and even if he is not able to read instructions a little experiment will immediately produce the result desired.

Engaged with the inner end of the water supply pipe 3 is a T-coupling 30 on the upper end of which is formed an interiorly threaded socket 31 in which is arranged a washer 32 and which is adapted to be screwed into engagement with a faucet. On the lower end of the coupling member 30 is formed an exteriorly threaded flanged head 33 with which may be connected a water conducting pipe (not shown), but on which may be screwed a cap 34 whereby this end of the coupling member is closed.

By means of a drinking fountain constructed as herein shown and described it will be seen that the lips cannot come in contact with the discharge nozzle or other parts of the fountain for the purpose of obtaining a drink and that in order to drink it is necessary to take the water as it bubbles up or flows from the discharge nozzle, and it will be also noted that no water can be obtained or taken from the fountain by means of a cup or other receptacle. Hence I provide an absolutely sanitary drinking fountain from which a drink cannot be obtained except by catching the water in the mouth after it leaves the discharge nozzle of the fountain. By providing the double valve the fountain may be temporarily or permanently closed and in freezing weather the water may be entirely drained therefrom by removing the cap 34 on the lower end of the coupling member of the fountain. By providing the valve stem with coarse screw

threads the valve may be quickly adjusted to an open or closed position.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention what I claim is:

1. In a drinking fountain a valve casing, having in its upper and lower ends valve seats, a neck formed on said casing, said neck having arranged therein coarse threads, a tubular valve stem having a threaded engagement with said neck and having in the sides of its lower end a series of perforations, a double faced valve arranged on the lower end of said stem and adapted to be brought into engagement with one or the other of the seats arranged in said casing, means to screw said valve stem upwardly or downwardly in the threaded neck of the valve casing to project the perforated lower end of the stem into the casing to a greater or less extent thereby regulating the flow of water through the stem, a stop nut arranged on said stem, a discharge nozzle secured to the upper end of the stem and means to prevent the lips from being engaged with the nozzle when drinking from the fountain.

2. In a drinking fountain a valve casing having on one end an interiorly threaded neck and adapted to be connected at its opposite end to a water supply pipe, a tubular exteriorly threaded valve stem adapted to be screwed upwardly and downwardly in said neck, said stem having a perforated lower end adapted to be screwed into said casing to a greater or less extent thereby regulating the passage of water through the stem, a valve arranged on the lower end of said valve stem and adapted to cut off the flow of water through the stem, a catch basin arranged on said valve casing, a drain passage formed in said basin, a discharge nozzle secured to the upper end of said valve stem, a series of radially disposed arms formed on said nozzle, a combined hand wheel and guard ring formed on the upper ends of said arms whereby the lips are prevented from coming into contact with the nozzle when drinking therefrom and whereby said valve stem is adjusted in said casing.

3. In a drinking fountain a valve casing having on one end an interiorly threaded neck and adapted to be connected at its opposite end to a water supply pipe, a tubular

exteriorly threaded valve stem adapted to be screwed upwardly and downwardly in said neck, said stem having a perforated lower end adapted to be screwed into said casing to a greater or less extent thereby regulating the passage of water through the stem, a valve arranged on the lower end of said valve stem and adapted to cut off the flow of water through the stem, a catch basin arranged on said valve casing, a drain passage formed in said basin, a perforated strainer plate arranged in said catch basin, a retaining nut screwed on the upper end of the neck of the valve casing whereby said strainer plate is depressed and held in operative position in the catch basin, a discharge nozzle arranged on the upper end of said valve stem, a combined guard ring and hand wheel secured to said nozzle whereby the lips are prevented from being engaged therewith when drinking and whereby said valve stem may be adjusted in said valve casing, a stop nut arranged on said valve stem to limit the downward movement thereof, a water supply pipe connected with the lower end of said valve casing and a coupling arranged on the outer end of said supply pipe.

4. In a drinking fountain a valve casing, a tubular valve stem adjustably arranged therein, a valve on the inner end of said stem, a discharge nozzle secured to the upper end of said stem, a catch basin arranged on said casing below said discharge nozzle, said catch basin having formed therein a drain opening, a water supply pipe connected to the lower end of said valve casing, a T coupling arranged on the opposite end of said supply pipe, a socket formed on one end of said coupling and adapted to be engaged with a faucet, and a cap adapted to be screwed into engagement with the opposite end of the coupling whereby said end is closed.

5. In a drinking fountain, a valve casing having in its upper and lower ends valve seats, a tubular valve stem having a threaded engagement with said casing and having in its lower end a series of perforations, a double faced valve arranged on the lower end of said stem and adapted to be brought into engagement with one or the other of the seats in said casing, means to operate said valve and stem whereby the perforated lower end of the latter will be projected to a greater or less extent into said casing and adjustable means to limit the movement of said valve and casing whereby the flow of water through the fountain is regulated.

6. In a drinking fountain, the combination with a valve casing having an inlet at its lower end and a neck projecting from its upper end and internally threaded, seats around said inlet and the inner end of the neck, a double-faced valve adapted to alter-

nately contact with said seats, and a tubular stem secured to said valve, threaded externally to engage the threads in said neck, and perforated near its lower end; of a
 5 catch basin carried by said casing and having a drain, a perforated strainer plate within the basin surrounding said neck, means for securing it to the latter, a discharge nozzle adjustably mounted upon the
 10 upper end of said valve stem, a series of radially disposed arms formed on said nozzle, and a combined hand wheel and guard ring encircling and connected with the outer ends of said arms whereby the lips are prevented from coming into contact with the
 15 nozzle.

7. In a drinking fountain, the combination with a valve casing, a seat therein, a valve having a tubular stem provided near
 20 the valve head with perforations, the stem being rotatably mounted within the casing and certain of the perforations being uncovered when it is rotated, and a discharge nozzle on the stem; of a combined hand
 25 wheel and guard ring carried by said nozzle whereby the lips are prevented from coming into contact therewith.

8. In a drinking fountain, a valve casing having internal threads, a seat therein, a
 30 valve having a tubular stem with external threads engaging those in the casing and adapted to control the flow of water there-through, a discharge nozzle on the stem, and a combined hand wheel and guard ring
 35 surrounding said nozzle whereby said valve

may be opened and closed and the lips are prevented from coming into contact with the nozzle.

9. In a drinking fountain, an upright casing having an internal seat and an internally threaded neck above said seat, a valve adapted to be closed upon the latter, and a tubular valve stem adjustable within the threads in said neck; of a nozzle on the
 40 upper end of said stem, a combined hand wheel and guard carried by and surrounding said nozzle, and a shield within said wheel to prevent the introduction of means for the catching of water ejected by said
 45 nozzle.

10. In a drinking fountain, an upright casing having an internal seat and a neck above said seat, a valve adapted to be closed upon the latter, and a tubular valve stem adjustable within said neck; of a nozzle on
 50 the upper end of said stem, a combined hand wheel and guard carried by and surrounding said nozzle, a shield within said wheel to prevent the introduction of means for the catching of water ejected by said
 55 nozzle, and a catch basin carried by said neck at a point below the outlet from said shield and itself having a drain.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARTHUR WHITTIER.

Witnesses:

ARTHUR A. SMITH,
 HARRY A. TURNER.