

No. 672,221.

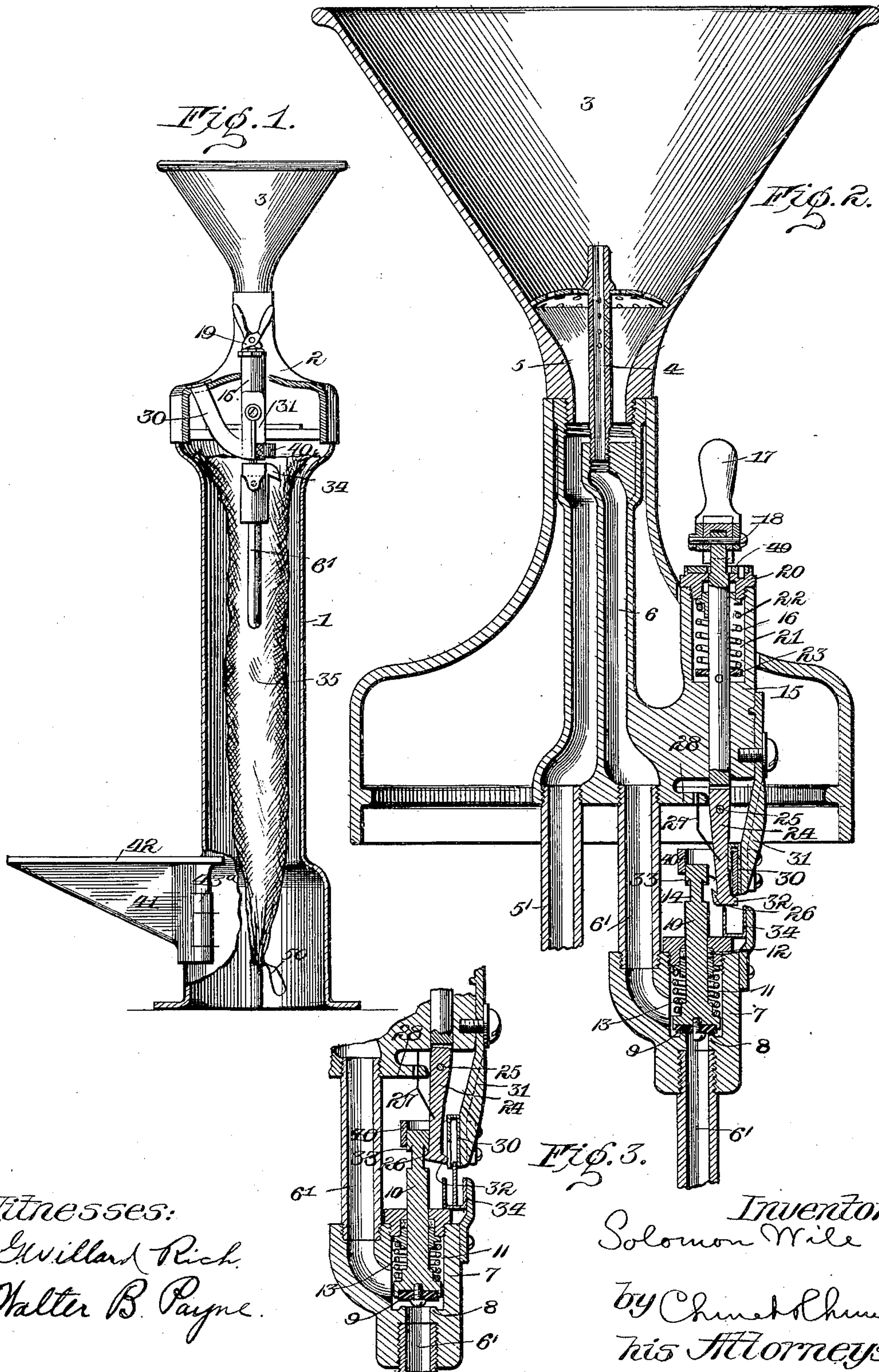
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S. WILE.

COIN CONTROLLED VALVE FOR DRINKING FOUNTAINS.

(Application filed May 22, 1900.)

(No Model.)



Witnesses:

Guillard Rich.
Walter B. Payne.

Inventor,
Solomon Wile
by Chas. H. Chubb & Co.
his Attorneys.

UNITED STATES PATENT OFFICE.

SOLOMON WILE, OF ROCHESTER, NEW YORK.

COIN-CONTROLLED VALVE FOR DRINKING-FOUNTAINS.

SPECIFICATION forming part of Letters Patent No. 672,221, dated April 16, 1901.

Application filed May 22, 1900. Serial No. 17,603. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON WILE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful
5 Improvements in Coin-Controlled Valves for Drinking-Fountains; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part
10 of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to provide a coin-controlled valve particularly adapted for use in connection with a sanitary
15 drinking-fountain such as described in Letters Patent No. 615,182, in which latter fountain the water rises in a vertical stream from an orifice or nozzle on the inlet-pipe, which is so protected as to prevent contact with the
20 lips, yet permitting the operator to easily receive the stream in his mouth to obtain a drink.

To these and other ends my invention consists in certain improvements in construction
25 and combinations of parts, all as will be hereinafter fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is a side elevation, partly in section, showing a fountain
30 embodying my invention; Fig. 2, an enlarged sectional view of the fountain-head and valve; Fig. 3, a sectional view illustrating the operation of the valve and its controlling devices.

35 Similar reference-numerals indicate similar parts.

In the present construction of my device I employ a base in the form of a column 1, having mounted upon its upper end the cap or
40 head 2, carrying the funnel-shaped bowl 3, within which is the centrally-projecting nozzle 4, surrounded by the outlet-passage 5 and connected to the inlet-passage 6. These passages are formed in a single casting, which
45 may be secured on the column 1 in any convenient manner. The drainage and inlet pipes 5' and 6' being connected thereto and passing downwardly through the interior of the column and through the floor or support are en-
50 tirely protected.

Arranged in the inlet-passage is the valve embodying the casing 7, forming an offset in

the passage and having the valve-seat 8, with which coöperates the packed end 9 of a piston or stem 10, operating in the chamber 11, 55 which is closed upon its upper end by the gland 12, between which and the end of the stem is a spring 13, adapted to normally hold the valve upon its seat. The upper end of the piston or stem is provided with an annu- 60 lar notch or recess 14, permitting it to be engaged by suitable operating means, to be presently described, and elevated to open the valve.

15 indicates an extension formed upon one 65 side of the casting, containing the inlet and outlet passages, having its upper end chambered and projecting above the cap or head 2. Passing centrally through the extension is a vertically-movable spindle 16, and to the 70 upper end thereof are secured the operating-handles 17, journaled upon a common pivot 18 and having the points or projections 19, forming cams, bearing against the upper side of the plate 49 in a cap-nut 20, closing the re- 75 cess or chamber 21, in which latter is arranged a spring 22, bearing against a collar 23 on the spindle, acting to hold the latter downwardly and to return it to the normal position after the handles have been forced together. 80 Mounted upon the lower end of the spindle is an arm 24, pivoted at 25 and having upon its lower end the hook 26, lying slightly below and proximate to the annular recess or notch 14 in the valve-stem 10. A small spring 85 27, secured to the arm 24 below its pivotal point and operating through an aperture in the finger 28, serves to hold the hook normally out of engagement with the recess in the stem, permitting the operation of the han- 90 dles without affecting the valve and requiring the insertion of a coin to cause the engagement of the parts.

A coin-channel 30, supported upon an arm 31, leads from a slot in the cap 2 and termi- 95 nates with its proximate side and bottom in the rear of the hook 26 and directly above a projection 32 formed thereon, the upper side of which projection is slightly beveled and adapted as the handles 17 are operated and 100 the spindle is raised to engage a coin in the channel to force the hook 26 into engagement with the shoulder 33, formed by the recess 14, causing the stem 10 to be raised and the valve

opened. To prevent the hook from being disengaged from the shoulder by the spring 27 or before the valve is entirely closed and to release the coin, I undercut or incline the engaging parts as shown, and I preferably further guide the upper end of the valve-stem by a loop or guard 40, secured to the end of the arm carrying the coin-channel. When the arm 24 has been moved sufficiently to allow the hook to engage the edge of the shoulder, the projection 32 will have passed beneath the coin and the beveled surfaces of the engaging parts will cause the finger to move still farther away, allowing the coin to pass out through the aperture in the bottom of the passage, when it will fall into a chute 34 and be conducted in a suitable receptacle arranged in the interior of the column. In the present instance I have shown a receptacle in the form of a long bag 35, having its upper end secured to the cap 2 and surrounding the valve and the lower end of the coin-passage. The lower end of the bag extends to the bottom of the column or support 1 and is closed by a draw or shirring string 40, and a door 41, arranged in the bottom of the column, permits access thereto. A step or small platform 42 is arranged upon the base, forming a step upon which children may stand, and to simplify the construction I form the door and step in a single piece and secure the latter by a pintle passing through the lugs 43.

The operation of the fountain will be readily understood. The parts resting in the normal position with the valve closed and the hook-arm 24 out of engagement with the valve-stem or piston, the handles 17 may be operated without affecting the valve. The coin inserted into the chute passes into the end of the channel 30 and rests upon the projection 32 on the arm 24, and being held from moving upward forms an abutment against which the inclined cam-face of the projection operates to throw the arm outwardly and cause an engagement of the hook 26 with the shoulder 33 upon the first upward movement imparted by the handles 17, when a continued movement will raise the piston 10, opening the valve and retaining it in this position as long as the handles are grasped, and when released the spring 27 causes the arm 24 to move backwardly, withdrawing the hook from the recess. The coin causes the initial movement of the hook into engagement with the valve-stem, and this engagement is fully secured when the spindle is raised. The spindle and valve-stem are in alinement and practically are a single part or instrumentality in two pieces detachably connected, so that there is no liability of their twisting or of becoming deranged.

I claim as my invention—

1. In a coin-controlled drinking-fountain, the combination with a bowl, inlet and outlet passages connected thereto, of a valve closing the inlet-passage, operating devices for open-

ing said valve normally disconnected therefrom, and means controlled by the insertion of a coin for causing an operative connection between the parts.

2. The combination of a movable valve, an operating device movable independently of said valve, the engaging member thereon having a cam-surface, and the coin-channel arranged proximate to said cam-surface, whereby when a coin is lodged therein an abutment will be formed against which said cam may operate to cause an engagement between the valve and the operating device when the latter is moved in one direction.

3. The combination with a self-closing valve having the valve-stem and operating devices movable independently of said valve having a movable engaging member, of a projection arranged on said member, a coin-channel having the lower open side normally closed by said projection, whereby as a coin is inserted therein it will form an abutment against which the cam may operate to cause the engagement of the movable member with the valve-stem.

4. In a coin-controlled drinking-fountain, the combination with an inlet-passage, a valve arranged therein having the stem and operating devices movable independently of said stem, the movable engaging member thereon, and a retracting device normally holding said member out of operative position, of a projection upon the engaging member, the coin-channel having the aperture above the projection and normally closed thereby, whereby, when a coin is inserted, an abutment will be formed to cause the member to move outwardly as the devices are operated to engage the valve and release the coin from the channel.

5. The combination with a self-closing valve, of a movable operating device therefor under the immediate control of the operator at all times, detachable engaging projections between the valve and operating device normally out of engagement and adapted upon the insertion of a coin to be connected, whereby the operator may maintain the valve open for any desired period when the valve and operating device are connected.

6. The combination with a self-closing valve, and an operating device therefor movable in a direction to open the valve, of a movable connecting-piece connected to one of the parts and adapted to engage the other to open the valve, a coin-passage into which the connecting-piece extends, and means for withdrawing the piece from the channel when the valve is opened.

7. The combination with a self-closing valve and an operating device therefor movable in a direction to open the valve of a movable connecting-piece connected to one of the parts and having an inclined surface engaging with the other, a coin-channel into which the connecting-piece extends, and from which it is withdrawn by the coöperation of the in-

clined surfaces when the valve is opened by the operating device.

5 8. The combination with a valve and an operating device therefor movable in a direction to open the valve, of a movable connecting-piece carried by one of the parts, a coin-channel into which said piece extends, and means for withdrawing the latter from the channel when the valve is opened.

10 9. The combination with a valve and an operating device therefor movable in a direction to open the valve, of a movable connecting-piece carried by one of the parts, inclined cooperating surfaces between the connecting-
15 piece and the other part, and a coin-channel into which the piece projects and from which it is withdrawn when the valve is opened.

20 10. The combination with a valve and an operating device therefor movable in a direction to open the valve, of a movable connect-

ing-piece carried by one of them, having the beveled or inclined end and an inclined surface on the other part, and a coin-channel into which said piece projects and from which it is withdrawn by the engagement of the
25 piece and cooperating part.

11. The combination with the spring-actuated valve-stem, a movable operating device, and an engaging member pivoted to one of the parts and adapted to engage the other, of
30 a coin-channel into which the member projects in position to engage a coin therein when the operating device is moved, said coin then serving as an abutment to operate the member into engagement with the valve, to open it.
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SOLOMON WILE.

Witnesses:

F. F. CHURCH,
G. A. RODA.