

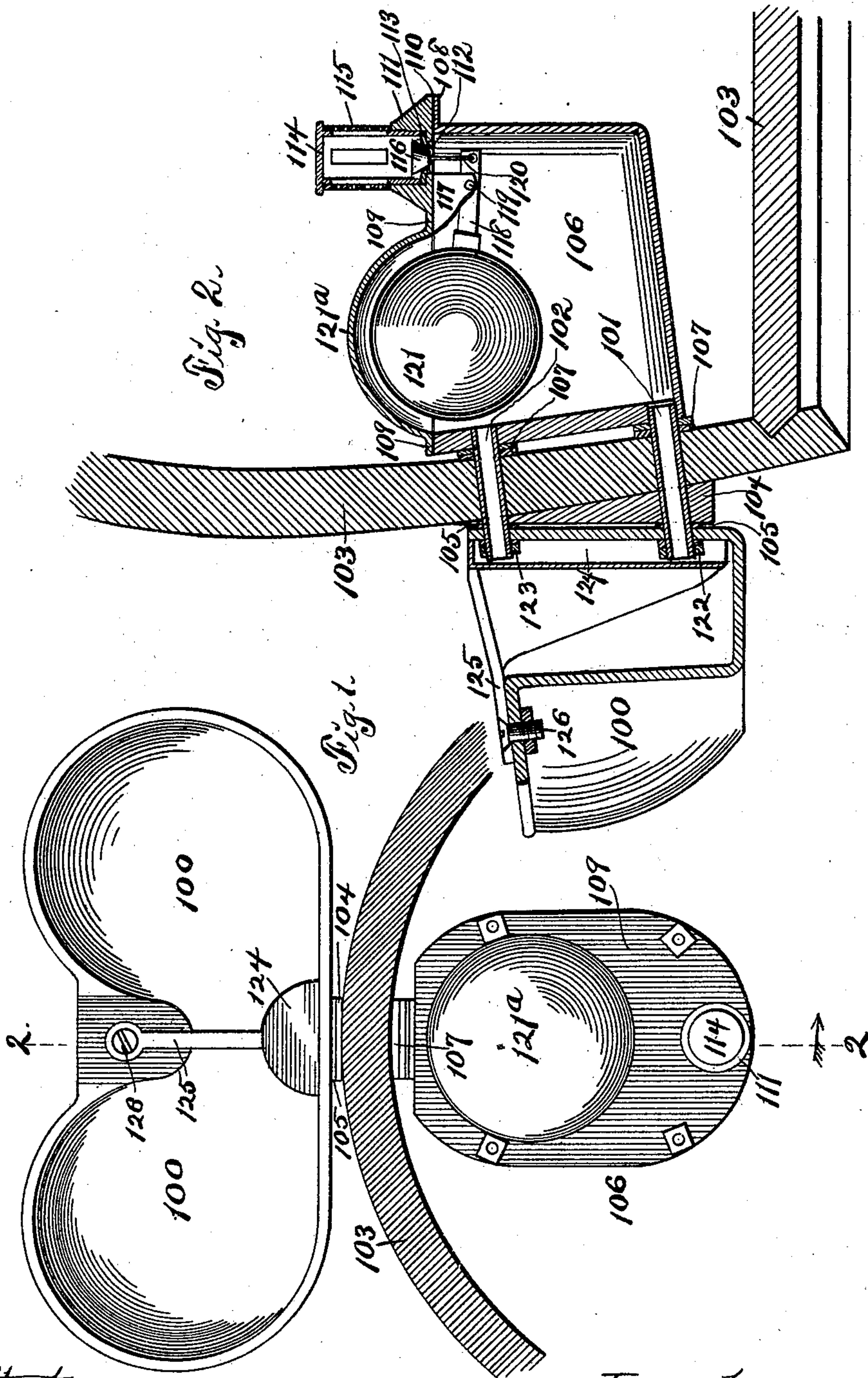
No. 647,942.

Patented Apr. 24, 1900.

C. I. BURT.
STOCK FOUNTAIN.

(Application filed Jan. 23, 1900.)

(No Model.)



Attest:

O. B. Anderson
W. E. Ellis

Inventor:
Chauncey J. Burt
By J. H. Sweet Att'y

UNITED STATES PATENT OFFICE.

CHAUNCEY I. BURT, OF DAVENPORT, IOWA.

STOCK-FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 647,942, dated April 24, 1900.

Application filed January 23, 1900. Serial No. 2,447. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY I. BURT, a citizen of the United States of America, and a resident of Davenport, Scott county, Iowa, have invented certain new and useful Improvements in Stock-Fountains, of which the following is a specification.

The object of this invention is to provide improved means for controlling the flow of water from a supply-tank to a drinking-cup as is required to automatically fill said drinking-cup.

My invention consists in the combination of a drinking-cup mounted outside a supply-tank, a valve-chamber mounted within the supply-tank and communicating with the drinking-cup through the wall of said tank, a water-ingress port in the top of the valve-chamber, a valve-plug mounted in said port, a lever fulcrumed in the valve-chamber and connected with the plug at one end, and a float on the lever.

My invention consists, further, in the construction of a valve-chamber with an inclined bottom, a removable and replaceable top plate, a lever fulcrumed on the lower face of said top plate, a float on one end of the lever, a water-ingress port in said top plate, and a valve-plug controlling said port and attached to said lever.

My invention consists, further, in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a plan of the complete device mounted as required for practical use. Fig. 2 is a vertical section of the device on the indicated line 2 2 of Fig. 1.

In the construction of the device as shown the numeral 100 designates a drinking-cup, preferably made of cast metal and formed with apertures in the central portion of its rear wall, one above the other, into which apertures are inserted the outer end portions of a water-supply pipe 101 and an air-vent pipe 102. The pipes 101 and 102 are arranged for insertion in the wall of a supply tank or barrel 103 in inclined positions parallel with each other, and a wedge 104 and washers 105 are mounted on said pipes and arranged to be interposed between the rear wall of the

drinking-cup and the outer face of the wall of the tank or barrel to position said rear wall of the drinking-cup at the desired angle relative to the wall of the tank or barrel and level the upper margin of the drinking-cup. A valve-chamber 106, preferably formed of cast metal and with an inclined bottom, is provided, and the front wall of said valve-chamber is apertured in alinement with the apertures of the drinking-cup and threaded to receive the inner end portions of the pipes 101 102, leather or rubber washers 107 being mounted on the inner end portions of said pipes between the outer wall of the valve-chamber and the inner face of the adjacent wall of the tank or barrel. The washers 107 are employed to pack the joint and prevent leakage from the tank or barrel along pipes 101 102 and at the same time provide a means of adjusting the valve-chamber at the desired angle relative to the bottom of the tank or barrel to level the top of said valve-chamber. A wedge or wedges similar to the wedge 104 may be interposed, if desired, between the valve-chamber and the wall of the tank or barrel. A flange 108 is formed on and extends horizontally outwardly from the top margin of the valve-chamber 106, and a top plate 109 is bolted to said flange, a rubber or leather gasket 110 being interposed between the said top plate and flange to seal the joint between them and prevent leakage from the tank into the valve-chamber. An annular flange 111 is formed on and rises from one end portion of the top plate 109, and the top plate is apertured or provided with a water-ingress port 112 centrally of said flange. A rubber or leather gasket 113 is mounted on the top plate 109 within the flange 111 and is provided with a port or hole in its center of less diameter than the port 112. A screen-cap 114 is mounted in the flange 111 upon the marginal portion of the gasket 113 and extends above said flange.

The periphery of the screen-cap 114 is rabbeted, and a screen 115 is positioned in said rabbet and is secured therein by solder, connecting it to the screen-cap. A conical or semispherical valve-plug 116 is mounted within the screen-cap 114 and is so shaped and arranged as to enter and close the central port or aperture of the gasket 113. Ears 117, one

only of which is shown, are formed and depend from the top plate 109 adjacent to the port 112, and a float-lever 118 is fulcrumed on a pin 119, mounted in said ears. The short arm of the float-lever 118 is connected by a link 120 to the apex of the valve-plug 116 and extends through the ports of the top plate and gasket. A float 121 is fixed to the long arm of the lever 118 within the valve-chamber 106. A dome 121^a is formed in the top plate 109 to receive the float 121 in its upward movement. Nuts 122 123 are mounted on the end portions of the pipes 101 102 within the drinking-cup 100 and bind the drinking-cup and valve-chamber to the wall of the tank or barrel 103. A guard 124 is mounted over the outer ends of the pipes 101 102, and an arm 125 thereon is attached by a bolt 126 to the drinking-cup.

In practical use water flows through the port of the gasket 113 and the port 112 into the valve-chamber 106 and from said valve-chamber through the pipe 101 into the drinking-cup outside the tank or barrel and is drunk from said cup by swine or other animals or poultry. When the water fills the drinking-cup 100 approximately full, the float 121 is raised by said water, raises the long arm of the lever 118, depresses the short arm of the lever 118, and draws the link 120 and valve-plug 116 downwardly through the ports. In the downward movement the valve-plug 116 depresses the gasket within the port 112 and firmly seats therein, as illustrated in Fig. 2, thus cutting off the flow of water from the tank or barrel to the valve-chamber. As the water exhausts in the drinking-cup air enters the valve-chamber through the pipe 102 and permits the level of the water within the valve-chamber to lower coincident with the level of the water in the drinking-cup. The lowering of the level of the water in the valve-chamber permits the float to descend and move the long arm of the lever 118 downwardly. At the same time the short arm of the lever 118 is raised and, acting through the link 120, raises the valve-plug 116 to the end that the ports are opened and a further supply of water drawn from the tank or barrel. The screen 115 prevents the valve-chamber from materially clogging by impurities or foreign substances in the water, and by reason of the inclined positioning of the bottom of the valve-chamber and the pipe 101 sediment may flow freely from the valve-chamber to the drinking-cup and be removed from the latter manu-

ally, thus providing against clogging of the flow within the valve-chamber. The guard 124 protects the outer ends of the pipes 101 102 from rubbing of swine and lodgment of dirt therein.

I claim as my invention—

1. In the device of the class described the valve-chamber formed with a marginal flange at its top, a top plate removably and replaceably bolted to said flange, a gasket interposed between the said top plate and flange, the top plate being formed with a water-ingress port, a valve-plug arranged to close said water-ingress port and a float-controlled lever fulcrumed on the lower face of the top plate and connected with said valve-plug.

2. The combination of a drinking-cup, communicating pipes, a valve-chamber mounted on said communicating pipes and formed with an inclined bottom, a removable and replaceable top plate on said valve-chamber which top plate is formed with a water-ingress port, a lever fulcrumed on the lower face of said top plate, a float on one end of said lever and a valve-plug mounted for closing said port and attached to the opposite end of said lever.

3. In a device of the class described, the valve-chamber, the top plate removable and replaceable relative thereto and formed with a water-ingress port, a flange surrounding said water-ingress port, an annular gasket within said flange and surrounding and partially covering said ingress-port, a screen-cap mounted within said flange and engaging said annular gasket, a screen on said cap and a float-controlled valve-plug arranged for seating in the aperture of the gasket.

4. In a device of the class described, the valve-chamber, the removable and replaceable top plate thereon and formed with a dome and an ingress-port, valve mechanism for controlling said ingress-port, an annular flange surrounding said ingress-port formed on and rising from the top plate, a screen-cap in said annular flange and rabbeted in its outer face, a screen mounted in the rabbet of and extending around the screen-cap and means for securing said screen to said cap.

Signed by me at Des Moines, Iowa, this 20th day of November, 1899.

CHAUNCEY I. BURT.

Witnesses:

S. C. SWEET,
W. E. ELLIS.