K. MURDOCK.

DRINKING FOUNTAIN.

APPLICATION FILED AUG. 11, 1913.

1,146,946.

Patented July 20, 1915

2 SHEETS—SHEET 1.

FIG. 1

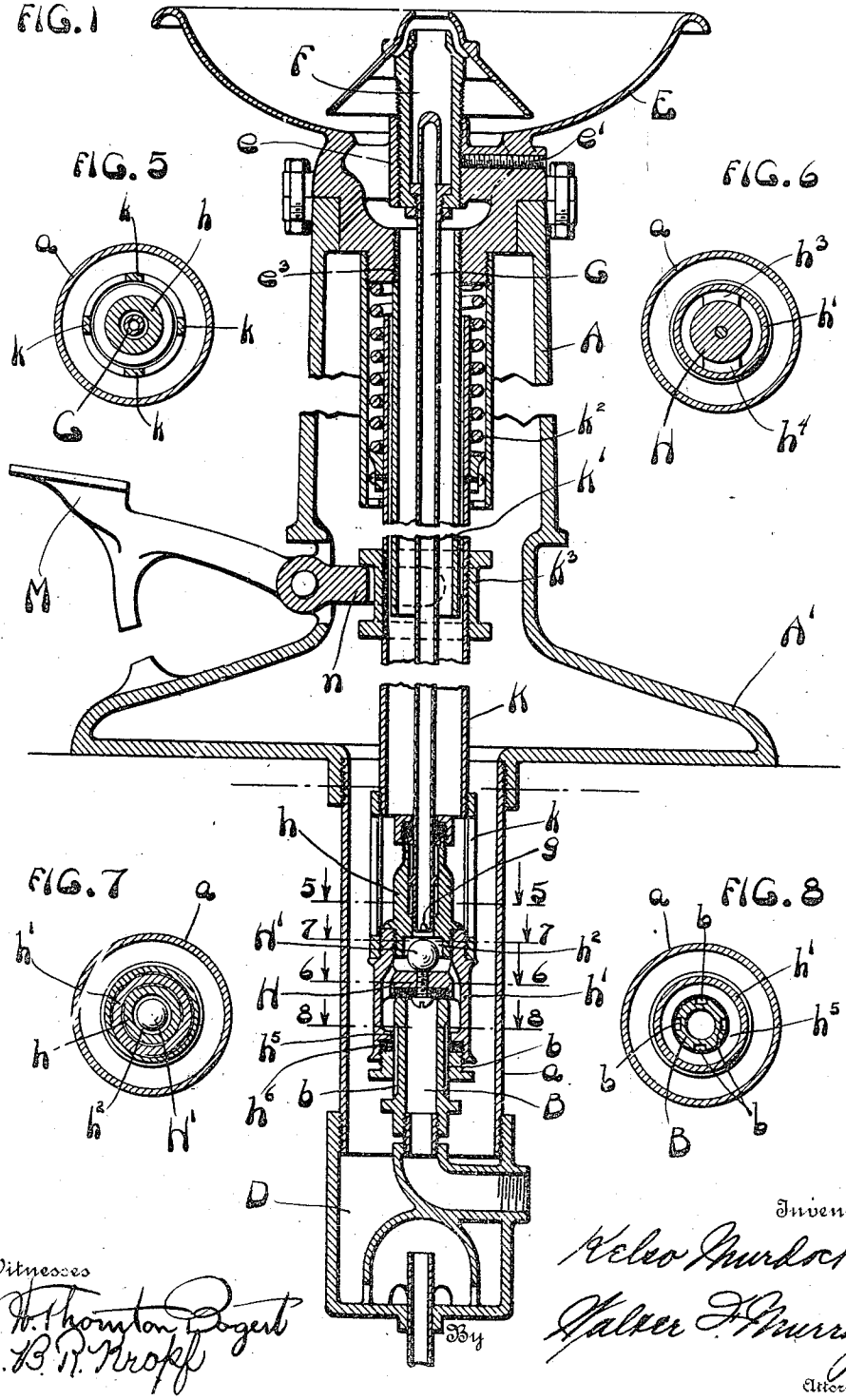


FIG. 5

FIG. 6

FIG. 7

FIG. 8

Witnesses

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2 SHEETS—SHEET 2.

FIG. 2

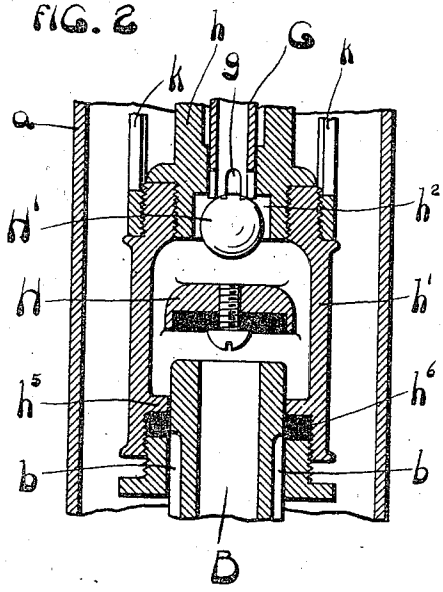


FIG. 3

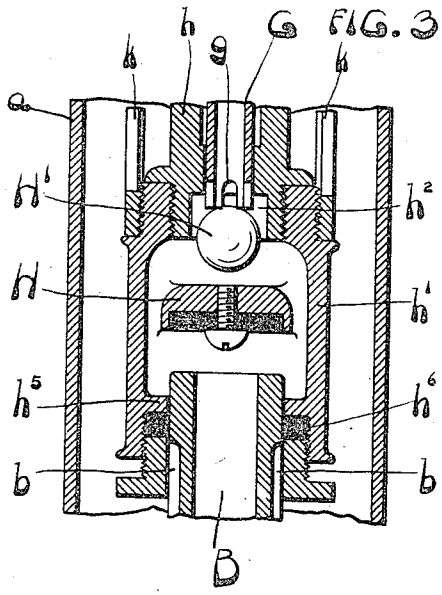
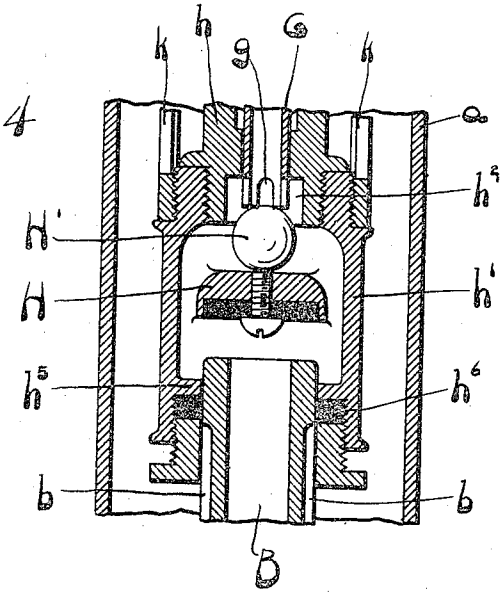


FIG. 4



Witnesses

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UNITED STATES PATENT OFFICE.

KELSO MURDOCK, OF CINCINNATI, OHIO.

DRINKING-FOUNTAIN.

1,146,946. Specification of Letters Patent. Patented July 20, 1915.

Application filed August 11, 1913. Serial No. 784,094.

To all whom it may concern:

Be it known that I, KELSO MURDOCK, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Drinking-Fountains, of which the following is a specification.

The object of my invention is a drinking fountain, whose regulating valve and means for adjusting it are located in an anti-freezing position.

Another object of my invention is a drinking fountain, whose valve opens the supply pipe so gradually to the supply, as to prevent spurting, and upon closing the supply, opens the supply pipe fully to the drain, so as to give a quick exhaust and thereby prevent freezing.

Another object of my invention is a drinking fountain provided with a drain pipe for the bubbler, which acts also as a means for connecting the operating lever and the actuating valve.

These and other objects are attained by the means described in the specification, and illustrated in the accompanying drawings, in which,

Figure 1 is a central vertical sectional view of the drinking fountain embodying my invention, the pedestal and the supply and drain pipes thereof being broken out, and the parts being brought together, to economize space. Figs. 2, 3 and 4 are detail vertical sectional views, upon an enlarged scale, of the regulating valve, showing it in different positions. Figs. 5, 6, 7 and 8 are horizontal sectional views, taken upon lines 5—5, 6—6, 7—7 and 8—8 respectively of Fig. 1.

Referring to the parts, pedestal A has a base A′ resting on the ground, and has an extension *a*, which supports the water supply nozzle B, and the drain D. The nozzle B has upon its exterior a series of vertical grooves *b*. The upper end of the pedestal supports a basin E, which has a centrally located internally screw-threaded collar *e*, to receive a bubbler or discharge device F with screw threads, to engage the screw threads of the collar *e*, whereby the bubbler may be raised or lowered in the collar, and when adjusted may be held in place by set screw *e′*. To the bubbler there is secured an elongated supply pipe G, which extends centrally of the pedestal A and the extension *a*, to a point above the supply nozzle B, and has in its lower end a series of notches *g*. The ends of the supply nozzle and the supply pipe are connected by a sliding valve housing, the upper part *h* of which has sliding connection with the lower end of the supply pipe, and the lower part *h′* of which has sliding connection with the supply nozzle B. The part *h* has a lower screw-threaded extension, which fits into the internally screw-threaded extension of the part *h′*. The extension of the part *h* has an enlarged internal recess h^2, into which the lower end of the supply pipe G may be extended, by screwing down the bubbler F, so as to cause the notches *g* to be uncovered to a greater or less extent by being projected into the recess h^2. The part *h′* of the housing has connected to it, by webs h^3 and h^4, the main valve H, which is adapted to be seated upon the upper end of the supply nozzle B, when the latter is closed, and to be raised therefrom by sliding the housing upward over the nozzle and the lower end of the supply pipe. The part *h′* has an internally projecting flange h^5, so positioned in relation to the valve H and the grooves *b*, that when the valve H is seated upon the supply nozzle, the flange h^5 stands below the upper end of the grooves *b*, and thus places the interior of the housing in connection with the drain D. Between the flange and the lower extension of the part *h′* is a packing h^6. Between the valve H and the lower end of the supply pipe G, there is a loose ball H′, which normally rests upon top of the main valve H.

The housing is connected by arms *k* to the lower part K of the drain pipe, which telescopes with the upper part K′ thereof, which is screwed into an internally screw-threaded extension e^3 of the basin E. The part K has a collar *k′*, between which and the extension e^2 of the basin, is a coiled spring k^2, which tends normally to hold the part K of the drain pipe down, and thus to hold the valve H seated upon the nozzle B. The part K of the drain pipe has a collar k^3, which is straddled by the yoke *n* of the foot lever M, which is pivotally mounted in the pedestal.

In operation, when the foot lever M is depressed, it raises the part K of the drain pipe against the pressure of the spring k^2, carries the housing *h h′* upward, and moves the valve H from its seat upon the end of the nozzle B. As soon as the valve H moves from its seat, the water passing around the

valve, raises the ball H′ into contact with the lower end of the supply pipe G, as shown in Fig. 2. There is then but a fraction of the notches *g* uncovered by the part *h* of the housing, and hence there is but a contracted passage for the water into the supply pipe G. This causes the lower part of the supply pipe to be filled, before the notches are fully opened. The result of this is to prevent the water spurting from the bubbler, and at the same time to give a quick supply of water at the bubbler. The completion of the movement of the foot lever raises the housing completely and fully uncovers the notches *g*, and then the full supply flows from the bubbler. Should it be found that this full supply has too forceful a flow, this may be regulated by raising the bubbler F and thereby raising the lower end of the supply pipe G, so that when the housing *h h′* is fully raised, the notches *g* are not fully uncovered by the lower end of the part *h* of the housing, as illustrated in Fig. 3.

When pressure upon the foot lever is released, spring h^2 quickly lowers the housing *h h′*, the ball H′ drops away from the lower end of the supply pipe G, and there is then an enlarged opening through the recess h^2, around the valve H, to the grooves *b*, and thence to the drain D, whereby the surplus of water standing in the supply pipe G is quickly drained.

What I claim is:

1. A drinking fountain comprising a pedestal, a water discharge device adjustably mounted at the upper end of the pedestal, a supply nozzle, a valve housing surrounding the supply nozzle, a valve in the housing, and a supply pipe extending from and secured to the discharge device and projecting into the valve housing, the discharge device being adapted to regulate the extent to which the supply pipe projects into the valve housing when the discharge device is adjusted on the pedestal.

2. A drinking fountain comprising a discharge device, a supply nozzle having external grooves, a supply pipe extending from the discharge device to a point adjacent to the supply nozzle, a valve normally seated upon the nozzle, a valve housing surrounding and connected to the valve, fitting over the lower end of the supply pipe and the upper end of the supply nozzle and normally uncovering the upper ends of the grooves, means for raising the housing, unseating the valve and closing the grooves, and a ball within the housing between the valve and the supply pipe normally resting upon the top of the main valve leaving a drain outlet in the supply pipe and adapted to be raised by the water to a position limiting the opening in the lower end of the supply pipe.

3. A drinking fountain comprising a pedestal, a basin supported by the pedestal, a water supply nozzle adjacent to the lower end of the pedestal, a supply pipe having a discharge in the basin and extending thence to a point adjacent to the nozzle, a valve housing having sliding connection with the supply pipe and the nozzle, a valve carried by the housing and normally seated upon the nozzle, a drain pipe having an upper part connected to the discharge outlet of the basin and a lower part telescoping with the upper part and connected to the valve housing, and an actuating lever connected to the lower part of the drain pipe and adapted to reciprocate it and the valve housing.

4. A drinking fountain comprising a water discharge device, a water supply nozzle, a supply pipe open and having notches in its walls at its lower end and extending from the discharge device to a point adjacent to the nozzle, a valve normally seated upon the end of the nozzle, a valve housing surrounding and connected to the valve having sliding connection with the supply pipe and the nozzle, covering the apertures in the supply pipe when the valve is seated and opening the apertures when the valve is raised, and a ball in the housing between the valve and lower end of the supply pipe.

In testimony whereof, I have hereunto subscribed my name this 7th day of August, 1913.

KELSO MURDOCK.

Witnesses:
JNO. G. MURDOCK, Jr.,
WALTER F. MURRAY.