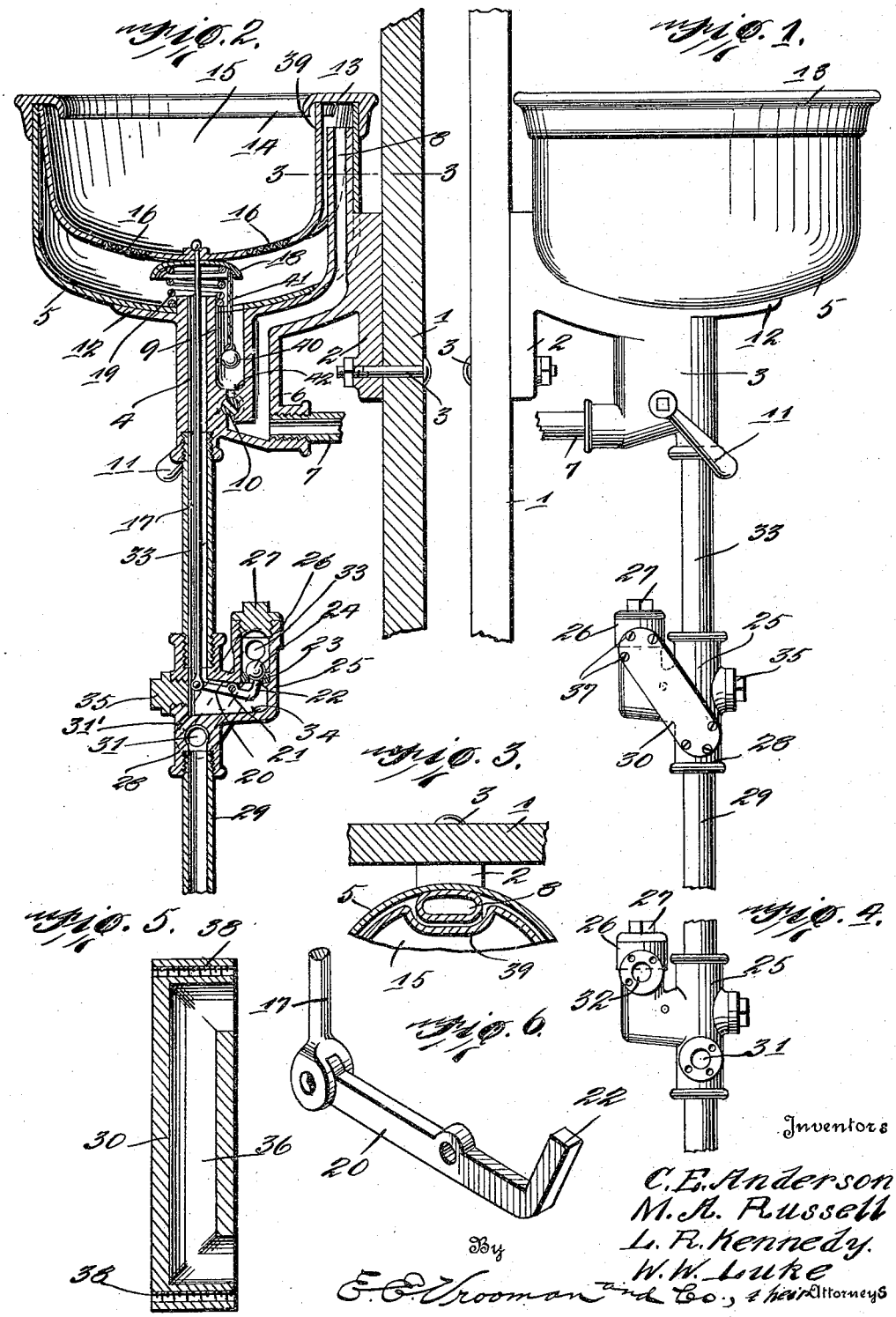
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DRINKING FOUNTAIN.

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# UNITED STATES PATENT OFFICE.

WILLIS W. LUKE, MILTON A. RUSSELL, LEWIS R. KENNEDY, AND CHARLES E. ANDERSON, OF FAIRFIELD, IOWA, ASSIGNORS OF ONE-FOURTH TO SAID ANDERSON, ONE-FOURTH TO SAID LUKE, ONE-FOURTH TO SAID KENNEDY, AND ONE-FOURTH TO J. P. FOREMAN, OF FAIRFIELD, IOWA.

## DRINKING-FOUNTAIN.

1,228,224. Specification of Letters Patent. Patented May 29, 1917.

Application filed July 1, 1916. Serial No. 107,176.

*To all whom it may concern:*

Be it known that we, WILLIS W. LUKE, MILTON A. RUSSELL, LEWIS R. KENNEDY, and CHARLES E. ANDERSON, citizens of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented certain new and useful Improvements in Drinking-Fountains, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a drinking fountain and has for its object the production of a simple and efficient drinking fountain, especially adapted to be used by stock and the like, whereby the fountain will be automatically turned on to supply water therefor when an animal pushes the inner bowl downwardly for opening the water supply.

Another object of this invention is the production of a simple and efficient mechanism for automatically turning on the water supply and causing the same to be automatically shut off after the animal has discontinued to drink therefrom.

With these and other objects in view, this invention consists of certain novel constructions, combinations and arrangements of parts as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a side elevation of the drinking fountain.

Fig. 2 is a vertical section therethrough.

Fig. 3 is a section taken on line 3—3 of Fig. 2.

Fig. 4 is a side elevation of the control valve casing, the communicating pipe being removed therefrom.

Fig. 5 is a vertical section through the end of the pipe used in connection with structure shown in Fig. 4.

Fig. 6 is a detail perspective of the crank arm which is adapted to control the ball valve carried within the supply or control valve casing.

By referring to the drawings it will be seen that 1 designates a support which may be of any suitable or desired character to which support is secured the supporting bracket 2 of the fountain. This supporting bracket 2 is secured to the support 1 by means of the bolt 3. The bracket 2 comprises a casing or housing 4 which projects outwardly from the support 1, and is provided with a vertical passage for the purpose of supplying water to the outer basin 5 of the fountain. The bracket 2 is also provided with a drain passage way 6 to which drain passage way 6 is secured a pipe 7 at the lower end thereof, the drain passage way also extending upwardly to constitute a vertically extending drain tube 8 for passing through the outer basin 5 as illustrated in Fig. 2 of the drawings.

A draining pocket 9 is also provided in the bracket 2 and is interposed between the supply water passage way and the draining passage 6. A rotary valve 10 is secured below the draining pocket 9 and is operated by means of a handle 11 so as to permit the bottom of the draining pocket 9 to be opened and closed at the will of the operator.

A forwardly extending lip 12 is integrally secured to the bracket 2 and constitutes a support for the bottom of basin 5. This basin 5 carries a cap 13 upon the top thereof which cap is provided with an inwardly extending annular flange 14, which annular flange also overhangs the vertically extending sides of the inner basin 15. This inner basin 15 is provided with a plurality of inlet apertures 16 upon the bottom thereof which inlet apertures 16 are covered with wire mesh as indicated clearly in Fig. 2.

A controlling rod 17 is secured to the inner basin 15 and a dished-plate 18 is secured to the bottom of the basin 15 and constitutes a pocket for the upper end of the coil spring 19. This coil spring 19 engages the bottom of the basin 5 and yieldably forces the inner basin 15 in an upward direction.

The lower end of the rod 17 engages a crank arm 20 which crank arm is pivotally secured upon a pivot pin 21, the arm 20 being provided with an upwardly extending finger 22. This upwardly extending finger 22 passes through a valve seat 23 and is adapted to engage the ball valve 24 to force the same from its seat when the basin 15 is pushed downwardly. The lever 20 is pivotally mounted upon the pin 21 as above stated and is secured within the controlled casing 25 which controlled casing is provided with an upwardly extending end 26 normally

closed by means of a removable block 27. This casing 25 is provided with an entrance or supply end 28 connected to the supply pipe 29 and the communicating pipe or casing 30 and communicates with the inlet opening 31 at its lower end formed in the casing 25 and communicates with a discharge opening 32 formed in the upper end 26 of the casing 25. It will therefore be seen that as the rod 17 is forced downwardly, the lever 20 will be swung upon its pivot, thereby kicking the ball valve 24 from its seat 23 and permitting water to pass up from the pipe 29 through the pipe 30 and to be discharged from the discharge aperture 32 and eventually pass up through the communicating pipe 33. It will, therefore, be seen that the passage of the water in the indirect path above described will allow the valve seat 23 to be kept clean at all times for the reason that water will pass through the valve seat and cause any sediment within the water to rest upon the lower base 34 of the casing 25. A clean out block 35 is secured to the casing 25 for the purpose of permitting the bottom of the casing 25 to be cleaned when so desired. By carefully considering Fig. 5, it will be seen that the pipe 30 is provided with a passage way 36 for conveying water from the inlet opening 31 to the outlet opening 33 and that the pipe 30 may be secured to the casing 25 by means of suitable screws 37 passing through the apertures 38 formed in the pipe 30.

By referring to Fig. 3, it will be seen that the bracket 2 is provided with an upwardly extending overflow tube 8 which tube extends vertically through the basin 5 and fits behind the inwardly struck channel 39 formed in the rear face of the inner basin 15.

The dished-plate 18 carried by the ball valve 40 is suspended from the plate 18 by means of a chain 41. This ball valve 40 works within the drain pocket 9 and is adapted to seat upon the valve seat 42 and prevent the water from draining from the basin 5 as the basin 15 is forced downwardly for the purpose of permitting the water to flow up through the communicating tube 33.

During cold weather it is, of course, desirous to prevent the device from freezing and for this reason a manually operated valve 10 is placed below the valve seat 42 and may be swung up or so positioned as to permit the basin 5 to be drained thoroughly after the animal has finished drinking from the fountain, as shown in Fig. 2. In warm weather, when there is no danger of the device freezing, the valve 10 is closed as shown in Fig. 2 and a certain amount of water will at all times remain in the basin 15 and the overflow will be carried off through the overflow pipe 8. The valve 40 performs no function during the time when the valve 10 is closed.

From the foregoing, it will be seen that a very simple and efficient means has been produced for automatically controlling the inturn and discharge of water to the inner basin 15 and that means have also been provided for permitting the basin to be automatically emptied when it is so desired.

Furthermore, a simple and efficient valve mechanism has been produced, which may be at all times kept clean and free from leakage and which will efficiently supply water to the fountain and automatically force the inner basin downwardly for the purpose of releasing the valve and supplying water to the basin. It should be understood that when the basin 15 is in an open or closed position, that the force of the water being discharged from the discharge opening 25 will cause the valve 24 to remain firmly upon its seat.

As shown in Fig. 2 of the drawing, a drain opening 31′ is formed in the casing 25 and communicates with the bottom 34 thereof so as to permit the casing 25 to be drained and prevent the same from freezing in case this part should be exposed in cold weather.

What is claimed is:

1. A drinking fountain of the class described comprising a drinking receptacle, a water supply means, a bracket supporting said drinking receptacle, said bracket provided with a drain pocket, means for operating said drain pocket to be manually closed when so desired, an automatic valve for closing said drain pocket when water is being admitted to the drinking receptacle, and being adapted to be raised to an inoperative position for permitting said drinking receptacle to be automatically drained when the supply of water has been cut off, and said bracket provided with an overflow tube extending vertically of said drinking receptacle.

2. A drinking fountain of the class described comprising a drinking receptacle, a water supply means, a bracket supporting said drinking receptacle, said bracket provided with a drain pocket, means for operating said drain pocket to be manually closed when so desired, an automatic valve for closing said drain pocket when water is being admitted to the drinking receptacle and being adapted to be raised to an inoperative position for permitting said drinking receptacle to be automatically drained when the supply of water has been cut off, said bracket provided with an overflow tube extending vertically of said drinking receptacle, an inner basin secured within said drinking receptacle and capable of having vertical movement therein, and means carried by said inner basin for controlling the supply of water to and from said drinking receptacle.

3. A drinking fountain of the class described comprising a drinking receptacle, a water supply means, means supporting said drinking receptacle, said supporting means provided with a drain pocket, an automatic valve for closing said drain pocket when the water is being admitted to the drinking receptacle, and being adapted to be raised to an inoperative position for permitting said drinking receptacle to be automatically drained when the supply of water has been cut off.

4. A drinking fountain of the class described, comprising a drinking receptacle, a water supply means, a basin vertically mounted within said drinking receptacle, a rod connected to said basin and passing through said water supply means, a valve coöperating with said rod for controlling the entrance of water through said water supply means, a spring secured within said drinking fountain, an inverted concavo-convex spring retaining plate secured to the under face of said basin and constituting a housing for the upper end of said spring, draining means communicating with said drinking receptacle, and a valve carried by said inverted concavo-convex plate for automatically controlling the opening and closing of said draining means.

In testimony whereof we hereunto affix our signatures.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."