F. H. BOGDA.

STOCK WATERING BOWL.

APPLICATION FILED JAN. 8, 1918.

1,337,636. Patented Apr. 20, 1920.

Fig. 1.

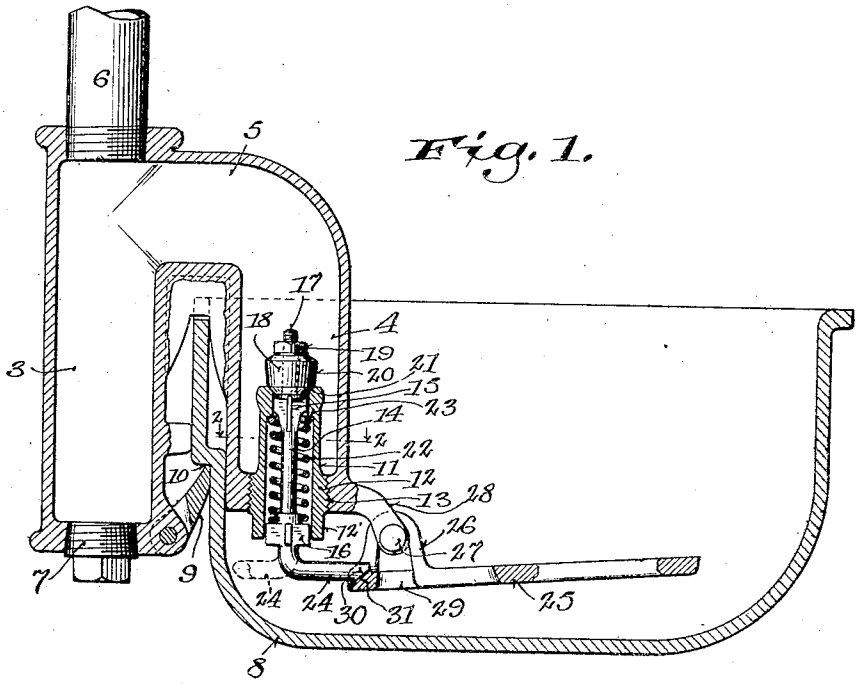
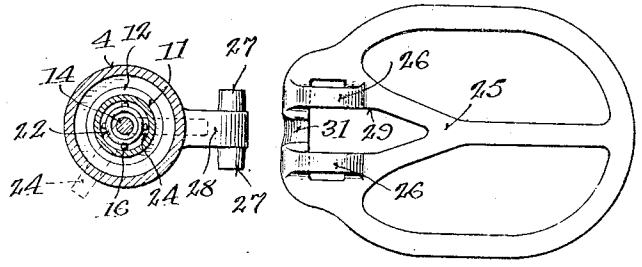


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK H. BOGDA, OF HORICON, WISCONSIN.

STOCK-WATERING BOWL.

1,337,636. Specification of Letters Patent. Patented Apr. 20, 1920.

Application filed January 8, 1918. Serial No. 210,858.

To all whom it may concern:

Be it known that I, FRANK H. BOGDA, a citizen of the United States, and a resident of Horicon, in the county of Dodge and State of Wisconsin, have invented new and useful Improvements in Stock-Watering Bowls, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The invention relates to stock watering bowls more particularly to the valve and valve mechanism used in connection with the bowl.

The invention is designed to provide a presser plate for operating the valve which is readily removable from the device.

The invention is further designed to provide a valve for a water bowl which may be rendered inoperative by disconnecting it from the presser plate.

The invention is further designed to provide a valve mechanism in which the arrangement of the presser plate with the valve stem is such that a slight pressure will operate the valve.

The invention further consists in the several features hereinafter described.

In the drawings:

Figure 1 is a vertical section through the device embodying the invention; and

Fig. 2 is a section taken on the line 2—2 of Fig. 1, showing the presser plate removed.

In the drawings the supply pipe consists of a pipe in inverted U-shaped form having vertically extending portions 3 and 4 connected by a transverse portion 5, said pipe adapted to be connected at either end of the part 3 to a source of supply. In the drawings I show the upper end of this pipe connected to a supply pipe 6 and the lower end is shut off by a plug 7 though it will be understood that the water may be let in from either end.

The numeral 8 designates a bowl which is detachably connected to the supply pipe by a pivoted catch 9 mounted on the pipe and engaging a projection 10 on the bowl, the details of this construction being shown and described in my copending application Serial Number 151,694, filed March 1, 1917, which has since become Patent No. 1,310,320, issued July 15, 1919.

The valve of this invention consists of a tubular sleeve 11 having a cylindrical threaded portion 12 secured in a threaded opening 13 in the end of the portion 4 of the supply pipe and a nut portion 12′. Slidably mounted in the sleeve is a valve stem 14 having guide heads 15 and 16 ribbed to form radial passages and moving in the ends of said sleeve and a rod portion 17 extending from the head 15 and upon which an apertured conical valve head 18, preferably of rubber, is secured by a nut 19. This head has a conical portion 20 adapted to register on a conical valve seat 21 in the sleeve 11. The valve is normally held closed by a spring 22 interposed between a shoulder 23 in the sleeve and the head 16 of the stem. The valve stem is provided with an extension 24 and the stem may be turned in any position in the sleeve.

The means of this invention for operating the valve consists of a presser plate 25 having spaced stirrups 26 which are adapted to be slipped on laterally projecting pins 27 on a lug 28 formed on the supply pipe. A T-shaped opening 29 is also formed in the presser plate and the arrangement is such that the presser plate may be removed from or connected up with its pivotal support by introducing the lug 28 and its laterally projecting pins 27 in a position lengthwise of the opening 29 and passing them downwardly through said opening and then turning the plate so that the pins or projections 27 are brought in line with the head of the T-shaped opening and the stirrups 26 and moving said parts into engagement with each other. The end 30 of the extension 24 is adapted to be turned forwardly and be engaged by a part 31 of the presser plate which is spaced but a short distance from the fulcrum defined by the pivot pins 27 so that on pressing on the outer end of the presser plate a great leverage is obtained to move the extension 24 and consequently the valve stem upwardly against the action of the spring 22 to open the valve making it possible to use the device for cattle or calves as a slight pressure on the plate will open the valve.

When it is desired to shut off the water the presser plate may be removed from the supply pipe or the valve may be turned to bring the extension 24 out of engagement with the presser plate and to one side, as shown in dotted lines in Fig. 1.

Of course it will be understood that the valve and its actuating mechanism could be used on a bowl fixedly secured to the supply

pipe but the removability of the bowl permits easier removal of the valve.

The invention thus exemplifies a simple and efficient mechanism well adapted for the purposes described.

What I claim as my invention is:

1. A device of the character described, comprising a bowl, a water inlet-pipe projecting into the bowl, a valve for controlling the flow of water through said inlet-pipe, a presser-plate for operating said valve, and pivoting means for supporting said presser-plate in a horizontal position in the bowl, said pivoting means embodying a fixed part projecting into the bowl and a bearing part on the presser-plate which is formed with a longitudinally extending entrance-way to admit the fixed part in one position of the presser-plate and also a transversely extending entrance-way to permit said fixed part to reach the seat of said bearing part after the presser-plate has been moved to another horizontal position.

2. A device of the character described, comprising a bowl, a water inlet-pipe projecting into the bowl, a valve for controlling the flow of water through said inlet-pipe, a presser-plate for operating said valve, and pivoting means for supporting said presser-plate in a horizontal position in the bowl, said pivoting means embodying a fixed lug projecting into the bowl and having laterally projecting pins, and spaced apart stirrups on the presser-plate for engaging said pins, the space between said stirrups forming an entrance-way for said fixed lug and pins only when the presser-plate is turned laterally from its normal horizontal position.

3. A device of the character described, comprising a bowl, a water inlet-pipe projecting into the bowl, a valve for controlling the flow of water through said inlet-pipe, a presser-plate for operating said valve, a fixed lug having laterally projecting pins positioned in the bowl to pivotally support the presser-plate, said presser-plate being provided with a longitudinal opening and a stirrup at each side of the opening to engage with said pins, said opening forming an entrance-way to admit the lug and pins only when the presser-plate is turned laterally from its normal horizontal position.

4. A device of the character described, comprising a bowl, a water inlet-pipe projecting into the bowl, a valve for controlling the flow of water through said inlet-pipe, a presser-plate for operating said valve, a fixed lug having laterally projecting pins positioned in the bowl to pivotally support the presser-plate, said presser-plate being provided with a longitudinal opening, a stirrup extending upwardly from the face of the presser-plate and located at each side of the longitudinal opening, and a cross-opening under the stirrups, said longitudinal opening forming an entrance-way for the fixed lug and pins only when the presser-plate is turned laterally from its normal operating position.

5. A device of the character described, comprising a bowl, a water inlet-pipe projecting into the bowl, a valve for controlling the flow of water through said inlet-pipe and provided with a stem and a lateral projection extending angularly from the stem adjustable radially relative to the axis of the stem, a presser-plate for operating said valve, a fixed lug having laterally projecting pins positioned in the bowl for supporting the presser-plate, said presser-plate being provided with a longitudinal opening and a stirrup at each side of the opening, a bearing formed on the presser-plate at the rear side of said opening for engaging the lateral projection of the valve stem to support the presser-plate in its operative position, and said longitudinal opening forming an entrance-way for the lug and pins only when the presser plate is turned laterally from its normal operating position.

6. The combination with a water supply pipe, of a bowl disposed adjacent thereto, a normally closed valve in said supply-pipe and provided with a valve stem having an extension projecting beyond said supply-pipe and at an angle thereto, and a pivoted presser-plate disposed in the bowl and engaging the outer end of said extension to retain it in operative position, said extension of the valve stem being radially adjustable relative to the axis of the valve stem and out of the path of the presser-plate to release the presser-plate from operative connection with the valve.

In testimony whereof I affix my signature.

FRANK H. BOGDA.