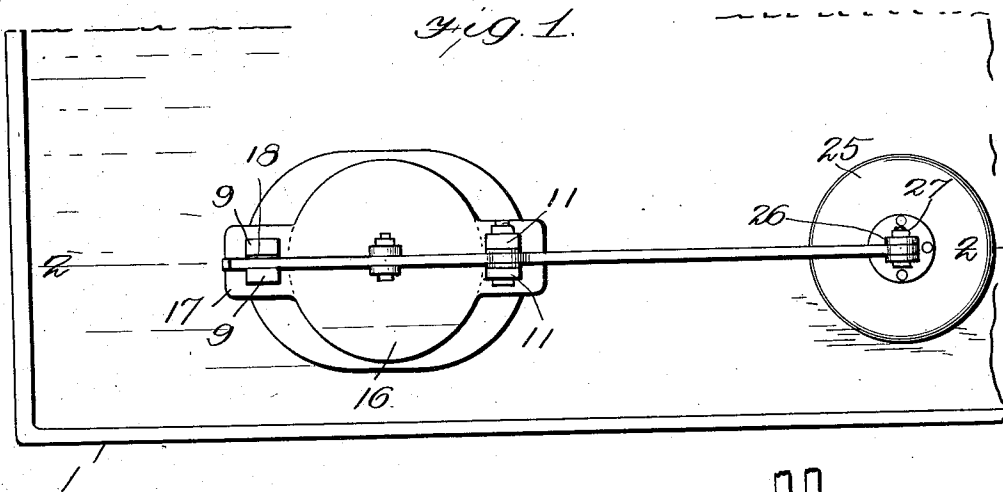
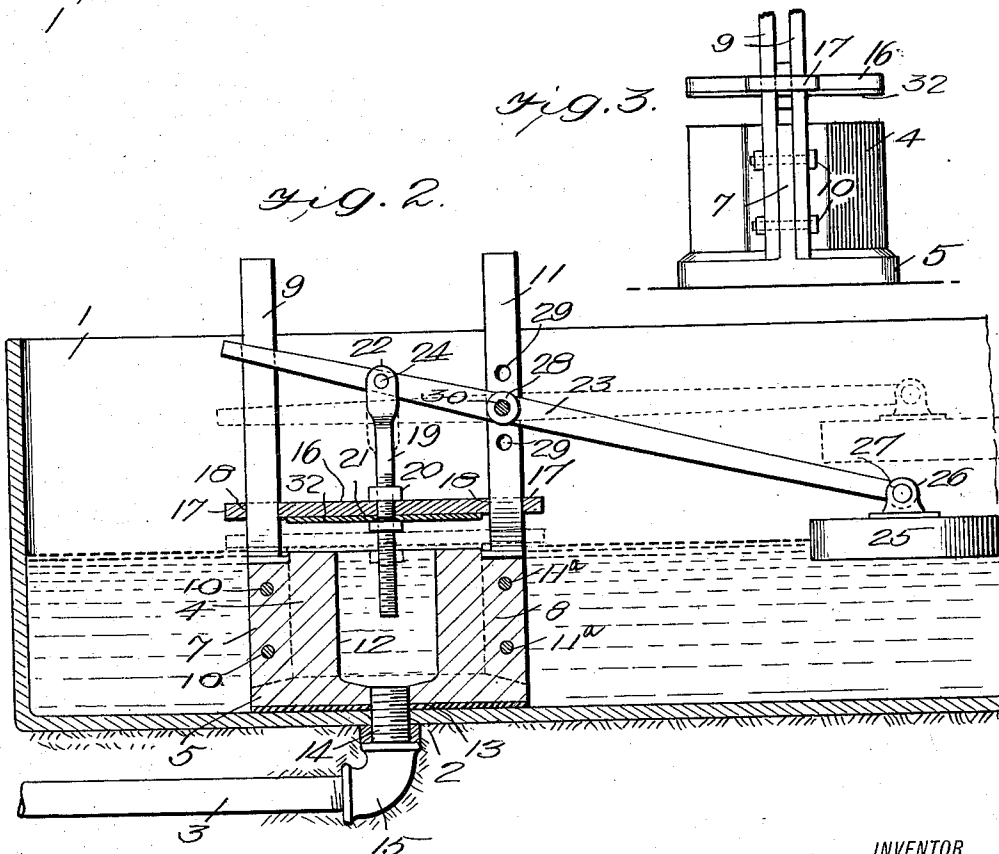


H. Q. SHARP.
FLOAT VALVE.
APPLICATION FILED SEPT. 5, 1914.

1,146,599.

Patented July 13, 1915.



WITNESSES

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UNITED STATES PATENT OFFICE.

HARRY Q. SHARP, OF SONORA, TEXAS.

FLOAT-VALVE.

1,146,599.

Specification of Letters Patent.

Patented July 13, 1915.

Application filed September 5, 1914. Serial No. 860,409.

To all whom it may concern:

Be it known that I, HARRY Q. SHARP, a citizen of the United States, and a resident of Sonora, in the county of Sutton and State of Texas, have invented a new and useful Improvement in Float-Valves, of which the following is a specification.

My invention is an improvement in float valves, and has for its object to provide a valve of the character specified, especially adapted for use in water tanks and other receptacles for providing water for stock or for any other purpose, wherein it is desirable to provide for a regular amount of water which is automatically renewed when a portion of the water is withdrawn.

In the drawings: Figure 1 is a top plan view of a water receptacle provided with the improved valve, Fig. 2 is a section on the line 2—2 of Fig. 1, and Fig. 3 is a rear view of the valve casing.

In the present embodiment of the invention, a receptacle or trough 1 for water is provided, the said trough having an opening 2 in its bottom for permitting the passage of the supply pipe 3 for the water. A valve casing 4 is seated in the trough, the casing having an extended base 5. The casing has a polygonal exterior, being hexagonal in the present instance, for permitting it to be engaged by a wrench for a purpose to be described.

The casing 4 is provided with oppositely arranged vertical ribs 7 and 8, and a pair of arms is connected with each rib. The arms 9 connected with the ribs 7 are arranged on opposite faces of the rib and are secured thereto by means of bolts and nuts 10. The arms 11 connected with the ribs 8 are also arranged on opposite sides of the rib, and are secured thereto by bolts and nuts 11^a. The members of each pair of arms extend upward in parallel spaced relation and the lower end of each arm abuts the upper face of the base 5. The valve casing 4 is chambered or recessed as indicated at 12, and is provided with a threaded opening 13 at the center of the chambered portion in its bottom. A section 14 of pipe is threaded into the opening, the said section extending through the opening 2 in the bottom of the trough, and an elbow 15 connects the lower end of the section with the supply pipe 3. The casing 4 is threaded onto the pipe section 14 by means of a wrench engaging the polygonal exterior of

the casing, and packing rings or washers of leather or the like may be arranged between the casing and the bottom of the trough.

The base 5 acts as a jam nut to insure a tight joint and also acts as a support to the ribs, and as a reinforcement for the valve casing. The arms 9 and 11 are guides for the cover plate 16, the said cover plate having oppositely extending radial extensions 17, each of which has an opening 18 for receiving the adjacent pair of arms 9 or 11, as the case may be. A threaded stem 19 is passed through a central opening in the plate 16, and lock nuts 20 and 21 are threaded onto the stem above and below the cover plate.

A washer 32 of leather or the like is arranged on the under face of the plate 16 for engaging the upper end of the valve casing, and for making a water tight joint when the plate is seated on the casing. In case the washers become worn, they may be removed and replaced, by removing the lock nut 21. The washers are held in place by this nut.

The upper end of the stem is forked, and the arms 22 of the fork extend on opposite sides of a float lever 23, and are pivoted thereto as indicated at 24. The lever 23 has one end between the members of the pair of arms 9 and the other end is connected to a float 25, the float having lugs 26 on its upper face between which the end of the lever is received and the lever is pivoted to the lugs as indicated at 27.

Between the pivot pins 24 and 27, the lever is pivoted to the arms 11. At this point the lever has a transverse bearing 28, fitting between the arms 11 and the arms have series of openings 29, the openings of the series registering. A pivot pin 30 is passed through the bearing and through registering openings in the arms. The float 25 is circular as shown, and when the cover plate 16 is seated on the upper end of the valve casing 4, the said casing is closed so that no more water may flow from the casing into the tank.

The operation of the device is as follows: When the water is withdrawn from the tank and the float 25 descends as indicated in Fig. 2, the valve 16 will be lifted and the water will flow from the casing into the trough or tank. This will continue until the float is lifted to a height such that the cover plate or valve 16 will close down on the upper end of the casing, shutting off the

flow of water. The float lever is guided by its engagement with the arms 9 and 11, and by means of the lock nuts 20 and 21, the valve may be adjusted with respect to the stem to shut off the supply of water at any desired point.

I claim:

A float valve comprising a substantially cup-shaped casing having an opening in its bottom for connection with a water supply pipe, said casing having oppositely arranged upwardly extending pairs of arms, the members of the pairs being spaced apart from each other laterally to form a vertical guideway, and the guideways of the pairs registering, a plate adapted to seat upon the top of the casing to shut off the water

flow from the casing, said plate having an opening for each pair of arms and the arms passing through the openings to guide the plate in its vertical movement, a lever in the guideways, a pivotal connection between the lever and one pair of arms, said connection being intermediate the ends of the lever; a float connected with the outer end of the lever, a threaded rod pivoted to the lever between the pairs of arms, the plate having an opening through which the rod extends, and nuts on the rod above and below the plate.

HARRY Q. SHARP.

Witnesses:

BART C. DE WITT,
WALLACE KEESEE.

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