Feb. 17, 1925. 1,526,738

O. E. BRADY

FLOAT CONTROL VALVE

Filed May 13, 1924

Fig. 1.

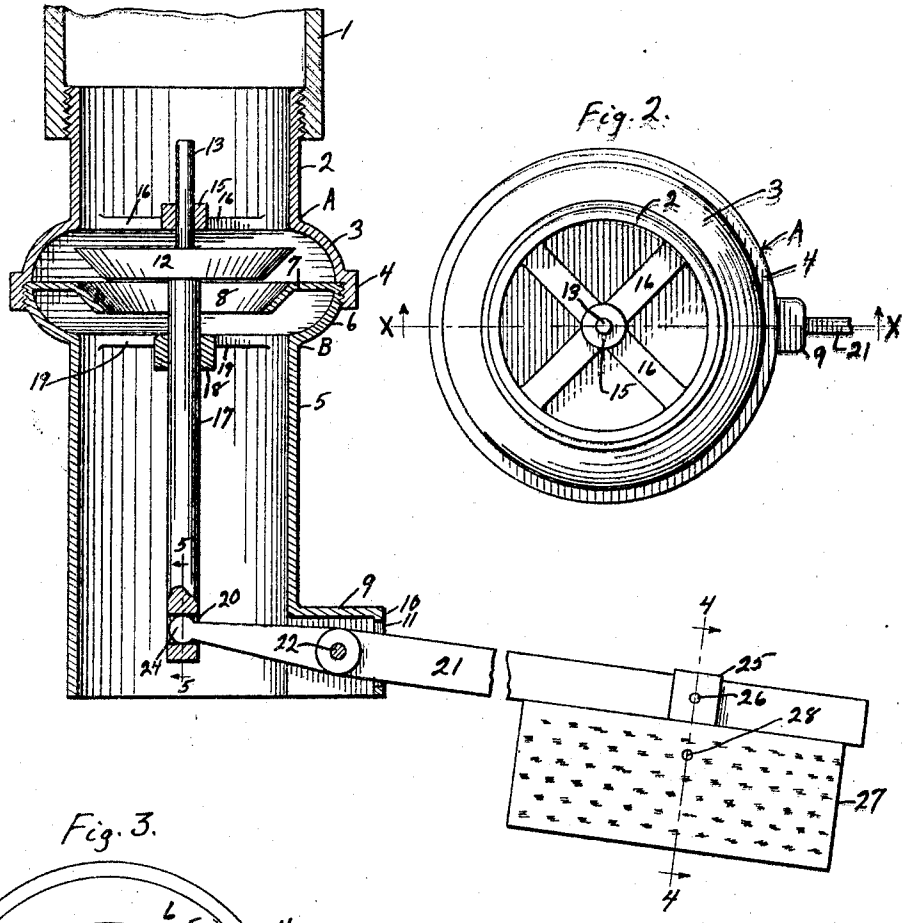


Fig. 2.

Fig. 3.

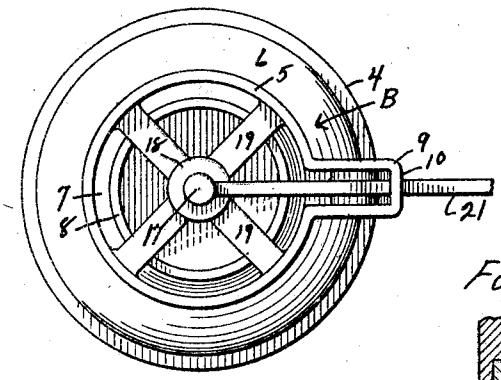


Fig. 4.

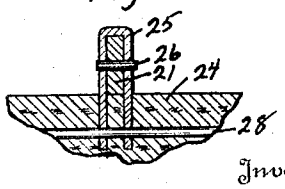
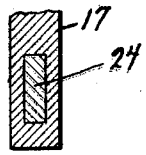


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

OSCAR E. BRADY, OF BRYANT, OKLAHOMA.

FLOAT-CONTROL VALVE.

Application filed May 13, 1924. Serial No. 713,102.

To all whom it may concern:

Be it known that I, OSCAR E. BRADY, a citizen of the United States, residing at Bryant, in the county of Okmulgee and State of Oklahoma, have invented certain new and useful Improvements in Float-Control Valves, of which the following is a specification.

The present invention relates to a float control valve and has for its prime object to provide such a mechanism which may be depended from an inlet pipe so as to be suspended within a tank.

Another important object of the invention is to generally improve upon devices of this nature by providing a simple and efficient construction, one which is reliable, inexpensive to manufacture, durable, strong, and well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description progresses, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a vertical longitudinal section through the device embodying my invention taken substantially on the line x—x of Figure 2,

Figure 2 is a top plan view thereof,

Figure 3 is a bottom plan view thereof, and

Figures 4 and 5 are detail sections taken substantially on the lines 4—4 and 5—5 of Figure 1 respectively.

Referring to the drawings in detail it will be seen that 1 designates an inlet pipe which is adapted to enter a tank from the top thereof so as to depend thereinto and terminates with internal threads. My improved valve includes a casing formed from the upper section A and the lower section B. The upper section A includes a cylindrical body portion 2 having external threads on its upper end for cooperation with the threads on the lower end of pipe 1 and at its lower end terminates in a flared flange 3 having on its end an internally threaded collar 4. The lower section B includes the body portion 5 having a flared upper end or flange 6 with external threads for engagement with the internal threads of the collar 4. A plate 7 extends across the upper end of the section B and is provided with a central opening having a conical shaped flange depending therefrom to form the valve seat 8. At the lower end of the body 5 of section B there is provided a transversely outwardly extending portion 9 which is substantially of an inverted U-shaped formation in vertical cross section the end thereof being closed as at 10 and provided with the slot 11.

A valve 12 is adapted to seat in the valve seat 8 and has a stem 13 rising therefrom and another stem 17 depending therefrom. A guide sleeve 15 receives the stem 13 being supported by rods 16 radiating from the sleeve 15 to the lower end of the body 2 of section A. A similar guide sleeve 18 receives the lower stem 14 and is supported by rods 19 radiating from the sleeve to the upper end of body 5 of the lower section B. The lower end of stem 17 which terminates adjacent the lower end of body 5 is provided with a slot 20. A lever 21 is pivoted intermediate its end on a pin 22 extending transversely of the portion 9 and one end thereof terminates in a substantially circular portion 24 disposed in the slot 20. This lever 21, of course, extends through the slot 11 in the portion 9 and said slot limits the movement of the lever. An inverted U-shaped strap 25 is attached by means of a pin 26 adjacent the outer end of this lever 21 and the ends of this strap are embedded in a cork float or the like 27. A rod 28 extends through the float and the ends of the strap 25 whereby the float is held into secure engagement with the latter.

When the tank in which this device is disposed is empty the parts will be positioned substantially as is indicated in Figure 1 so that the water or other fluid is free to flow from the inlet pipe 1 through the sections A and B since the valve 12 is in an open position. Of course, it will be understood, that as the tank fills the float 27 will be raised thus pivoting the lever 21 so as to pull downwardly on stem 14 and eventually close the valve 12 on its seat 8. It will also be readily understood that when the tank is being emptied the float will recede downwardly thus tending to open the valve so that the water may again flow through the sections A and B.

It is thought that the construction and operation of this invention will be readily understood by those skilled in the art with-

out any more detail description thereof. It is, however, desired to point out that numerous changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. In combination, a casing formed in two sections, one section including a cylindrical body having an internally flared lower end terminating in an annular internally threaded collar, the other section comprising a cylindrical body having an upper internally flared end provided with external threads to be received by the internal threads of the collar, a valve seat formed at the upper end of the second section surrounding an opening of substantially the same diameter as its cylindrical body and connected to the upper end of the section, a valve associated with the valve seat, guide sleeves within the sections, stems one projecting upwardly and one downwardly from the valve and through the guide sleeves, the lower end of the stem projecting into the lower section provided with a slot, a transversely extending portion provided on the body of the lower section, a lever fulcrumed in said portion having one end disposed in the slot of the stem of the valve in the lower section, and a float attached to the other end of the lever.

2. In combination, a lever for operating a valve and a float attached thereto, a U-shaped strap straddling the lever and embedded in said float, and a pin extending through the float and through the embedded ends of the strap.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR E. BRADY.

Witnesses:

FRANK DAVIS,

EARL FRAME.