

(No Model.)

W. E. CONE.
FLOAT VALVE.

No. 463,286.

Patented Nov. 17, 1891.

Fig. 1.

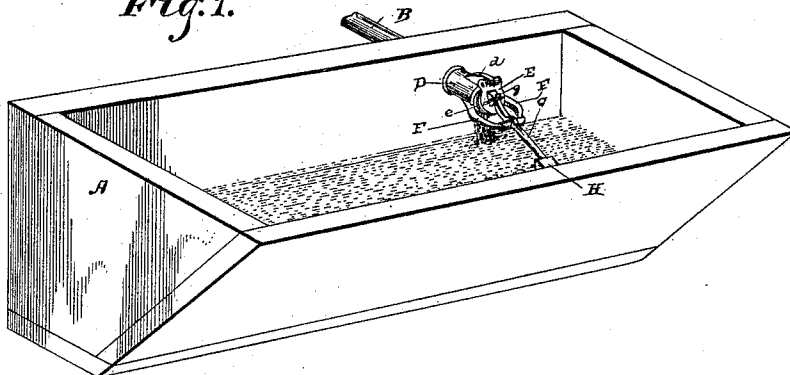


Fig. 2.

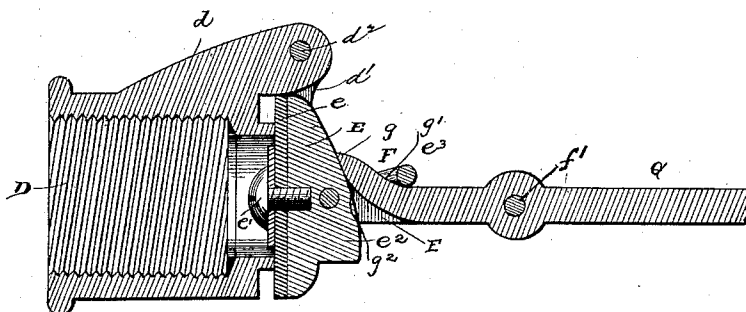
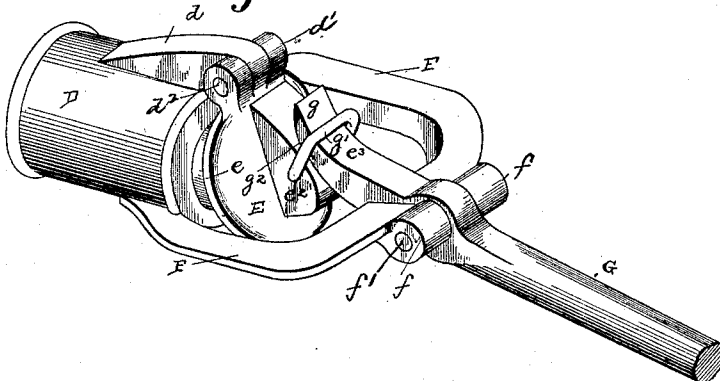


Fig. 3.



Witnesses

B. S. Ober

L. O. Wilkington

Inventor

William E. Cone.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM EDUMN CONE, OF MEMPHIS, MISSOURI.

FLOAT-VALVE.

SPECIFICATION forming part of Letters Patent No. 463,286, dated November 17, 1891.

Application filed April 30, 1891. Serial No. 391,107. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EDUMN CONE, a citizen of the United States, residing at Memphis, in the county of Scotland and State of Missouri, have invented a new and useful Float-Valve, of which the following is a specification.

My invention relates to an improvement in float-valves that are especially designed for regulating the supply of water from a suitable tank to a watering-trough, and has for its object to provide a valve that will effectively cut off and let on a supply of water as the supply in the tank may require, but at a small expenditure of power from the float operating the valve; and it consists in certain features of construction hereinafter apparent, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a watering-trough provided with a float-valve constructed in accordance with my invention and in the act of supplying said trough with water. Fig. 2 is a longitudinal sectional view of my valve attachment, the valve being closed and the operating-lever in a horizontal position. Fig. 3 is a detail perspective view of the valve attachment detached from the supply-pipe.

A designates a watering-trough of the usual construction and provided with a supply-pipe B, situated near its upper edge and connected with any suitable water-supply tank, pond, or other reservoir, and is provided with my improved float-valve. The float-valve consists of an interiorly-threaded valve-body D, which is adapted to screw on the water-supply pipe and carry the various parts of the valve. The same is provided on its upper edge with an extension or perforated ear d , projecting beyond the front or discharge end of the valve-body and taking between a pair of bearing-lugs d' , formed on the upper side of the flap-valve E and pivoted thereto by a pintle d'' . The flap-valve E is adapted to bear against the valve-seat, which is the front or discharge end of the valve-body, or released from the same, according to the amount of water within the tank, and is itself provided on its bearing-face with the usual elastic packing e , which is secured to the same by means of a screw e' passing centrally therethrough into the flap-valve, thus providing a secure and firm at-

tachment of the packing to the said valve and easy means for removing and replacing a new packing when the old one is worn out. The front of the flap-valve is provided with a cam-faced lug e^2 , gradually enlarging toward its base or lower end, and upon the same is pivoted the rectangular link e^3 . Extending out in a horizontal plane from either side of the valve-stem are the inwardly-curved arms F, terminating in front of the valve in opposite perforated ears f and forming a yoke, and between the ears, by a pintle f'' , is pivoted the operating-lever G, which is provided at its outer end with the ordinary float H, that operates the same, according to the rise and fall of the water in the trough, and has its opposite or inner end projecting within the yoke formed by the arms F, curved upward, as shown at g , to form the outer concave face g' and the inner convex face g'' , such curved end engaging with the link e^3 as the water-line lowers in the tank and the float and outer end of the rod rides loosely up through the link e^3 , withdrawing its convex surface from the cam-faced lug e^2 of the flap-valve so that the pressure of water against the inner side of the valve causes the same to swing outwardly from its seat. The water now flows into the tank, elevating the float as the water-mark is reached until said float, elevating the outer end of the rod G, depresses the inner end of the rod, the convex face of which now begins to ride down the cam-faced lug, and by the time it reaches the lower large end of the lug the valve is closed upon its seat, in which position it is securely held by the buoyant tendency of the float.

The operation of my valve is thought to be apparent from the foregoing description, the valve being operated either to cut off and let on the supply of water by the pivoted float-lever, and is so arranged in conjunction with the bearing-lug on the valve and the link thereon as to assume a horizontal position in closing the valve and obtain a strong leverage, with but a limited movement of the float upon the operating-lever.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the interiorly-threaded valve-body provided upon its upper side

with a perforated ear and terminating at its
outer end in a valve-seat, and the horizon-
tally-disposed arms projecting outwardly
from the sides and in front of the seat and ter-
minating in bearing ends, of the valve hinged
5 loosely to the bearing-ear of the body and
adapted to lightly close upon the seat thereof
and having its outer face provided with the
cam-faced lug enlarging toward its lower end,
10 the link extending outwardly from the lug,
the rod pivoted between its ends between the
bearing ends of the arms, the inner end of the

rod being upwardly curved, engaging the
link and provided with an inner convex bear-
ing-face for operating against the cam-lug of 15
the valve, and the float connected to the outer
end of the rod.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
presence of two witnesses.

WILLIAM EDUMN CONE.

Witnesses:—

JAMES P. NESBIT,

J. N. SMALLWOOD.