

950,946.

F. MUHL.
BALL COCK.
APPLICATION FILED JULY 19, 1909.

Patented Mar. 1, 1910.

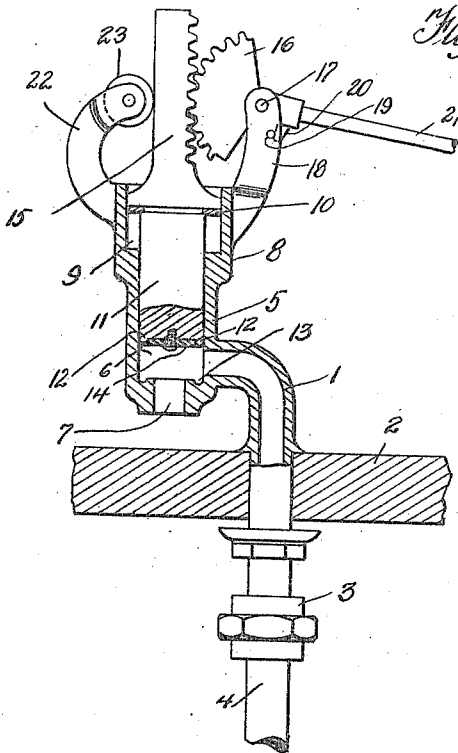


Fig. 1.

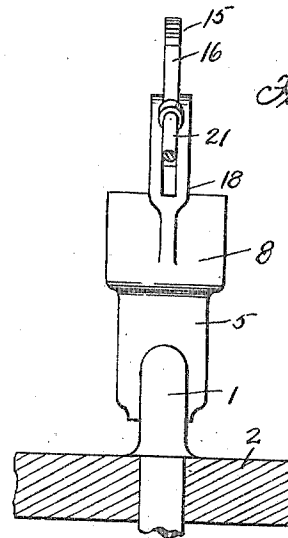


Fig. 2.

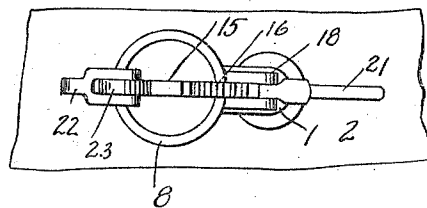


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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BALL-COCK.

950,946.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FERDINAND MUHL, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Ball-Cocks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to ball cocks, and the object of my invention is to provide a cock that can be advantageously used in a tank for controlling the supply of water to said tank, said cock being actuated by a float or a similar mechanism.

Another object of this invention is the provision of novel means in connection with a ball cock for obtaining a positive vertical movement of the valve or plug thereof, thus insuring a perfect seating of the valve or plug to close the cock.

A still further object of this invention is to provide a ball cock that will be simple and durable in construction, inexpensive to manufacture, and highly efficient for the purpose for which it is intended.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter described and then specifically claimed.

Referring to the drawings:—Figure 1 is a vertical sectional view of a ball cock partly in elevation, Fig. 2 is a front elevation of the same, and Fig. 3 is a plan.

In the drawings, 1 designates an elbow or water inlet pipe adapted to extend through the bottom 2 of the tank, said elbow being connected through the medium of a union 3 to a suitable water supply pipe 4. The end of the elbow 1 within the tank 2 is provided with a cylindrical body 5 having a bore 6 communicating with an outlet opening 7, formed in the lower end of the body 5, also with said elbow. The upper end of the body 5 is enlarged, as at 8, to provide a guideway 9 for a circular head 10, said head having a depending cylindrical valve or plug 11 adapted to move in the bore 6 of the body 5. The lower end of the valve or plug 11 is formed with an annular bead 12 adapted to seat in an annular groove 13 surrounding the outlet opening 7 at the bottom of the bore 6. The lower end of the valve

or plug 11 is also provided with a gasket or resilient washer 14 adapted to seat upon the bottom of the body within the bore 6 and close the outlet opening 7.

15 designates a vertical rack carried by the circular head 10, and engaging said rack is a toothed sector 16 pivotally mounted upon a pin 17 carried by a bifurcated bracket 18 connecting with the upper end of the body 5. The bifurcated bracket 18 is provided with a stop pin 19 adapted to be engaged by a depending lug 20, carried by the toothed sector 16, said lug limiting the movement of the sector in one direction. Connecting with the toothed sector is an actuating rod 21, to which can be connected a float or lever (not shown).

22 designates a curved bifurcated bracket carried by the upper end of the body 5, and journaled in said bracket is a roller 23, for engaging the rear edge of the rack 15 and retaining said rack in engagement with the toothed sector 16. The rack 16 is normally maintained in a vertical position by the sector 16 and the roller 23, consequently the valve or plug 11 cannot wobble or shift sideways in the bore 6.

With the valve or plug 11 in the position shown in Fig. 1 of the drawings, water can pass through the elbow 1, bore 6 and opening 7 into the tank, and when the rod 21 is raised, said rod through the medium of the toothed sector 16 lowers the rack 15 and the valve or plug 11, causing said valve or plug to firmly seat at the upper end of the opening 7 and close said opening.

It is thought that the operation and utility of the ball cock will be fully understood without further description, and while in the drawings I have illustrated the preferred form of construction, I reserve the right to make such changes as fall within the scope of the appended claim.

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

A ball cock comprising an elbow, a body carried by said elbow, said body having a bore formed therein communicating with said elbow, the lower end of said body having an outlet opening formed therein, a valve or plug movably mounted in the bore of said body and adapted to seat around the upper end of the outlet opening of said body, a vertical rack connecting with said valve or plug, oppositely disposed bifur-

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cated brackets carried by the upper end of
said body, a toothed sector pivotally mount-
ed in one of said brackets for moving said
rack, a roller revolvably mounted in the
5 other of said brackets for retaining said
rack in engagement with said toothed sec-
tor, and means carried by the first men-
tioned bracket for limiting the movement of

said toothed sector in one direction, sub-
stantially as described.

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

FERDINAND MUHL.

Witnesses:

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