L. D. COPELAND.

WATER TANK.

APPLICATION FILED SEPT. 7, 1915.

1,253,941. Patented Jan. 15, 1918.

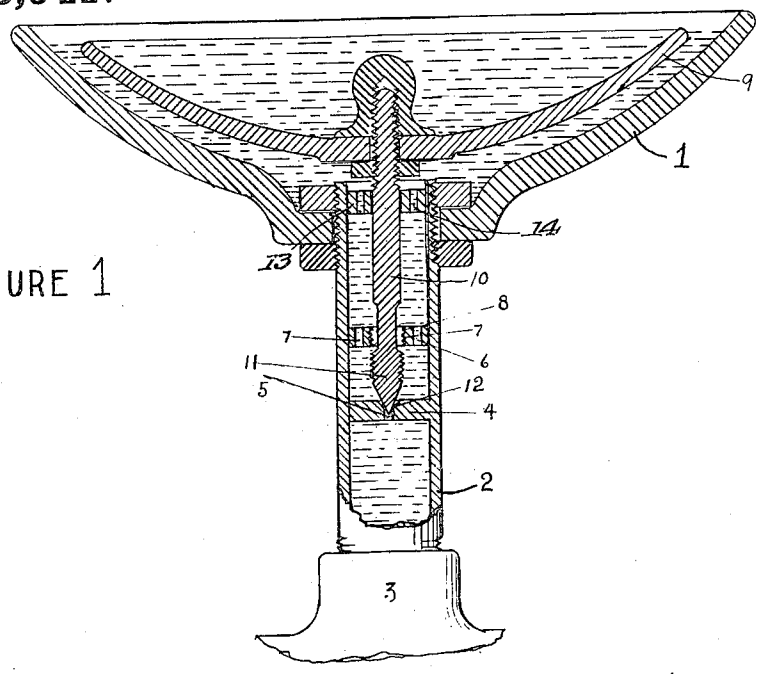


FIGURE 1

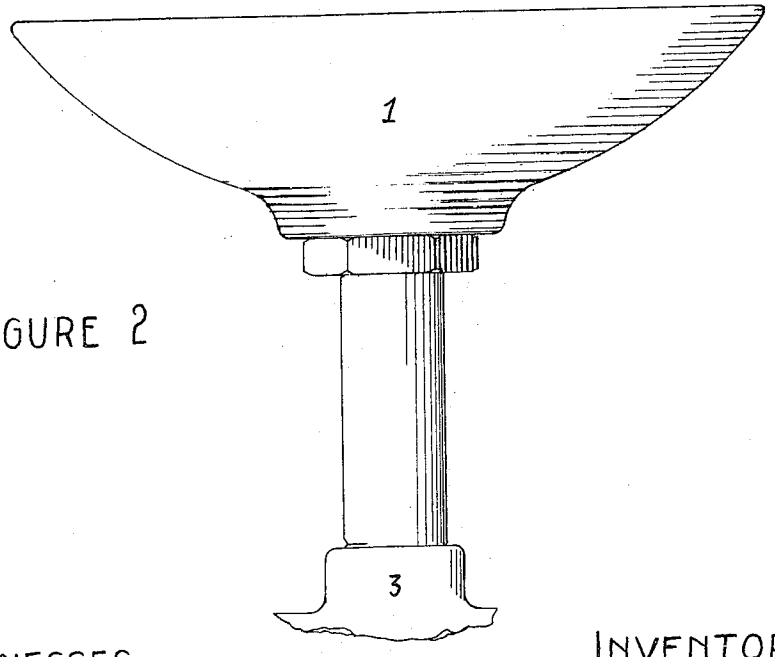


FIGURE 2

WITNESSES

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LUCIUS D. COPELAND, OF SAWTELLE, CALIFORNIA.

WATER-TANK.

1,253,941. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed September 7, 1915. Serial No. 49,294.

To all whom it may concern:

Be it known that I, LUCIUS D. COPELAND, a citizen of the United States, residing at Sawtelle, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Water-Tanks, of which the following is a specification.

This invention relates to water tanks in which it is desirable to maintain a constant supply of water at a certain level from a water supply situated at a higher level or under more or less pressure.

The object of this invention is, to provide a water tank which will automatically admit a fresh supply of water as the level of the water in the tank is lowered by evaporation or use, and which can be easily cleansed.

The general principle involved in this device is an outer tank provided with an inlet port connected to a water supply under pressure and an inner tank carrying a valve which alternately opens and closes said inlet port as the amount of water changes in the inner tank. When a supply of water enters the outer tank the inner tank rises about one eighth of an inch and is then stopped in its upward movement. It soon fills with water by an overflow from the outer tank and sinks, and in so doing the needle valve closes the inlet port of the outer tank and shuts off the further admission of water.

When a certain amount of water has been used from the inner tank it rises and in so doing lifts the needle valve from the inlet port of the outer tank and admits a fresh supply of water to the outer tank which soon overflows into the inner tank thereby causing it to sink and shut off the water.

While the preferred form for supplying water for poultry and stock is illustrated upon the accompanying sheet of drawings, it is obvious that the same general principles involved in the opening and closing of the inlet port of the outer tank by the rising and sinking of the inner tank, could be applied in various ways to tanks of various shapes and sizes.

In the drawings:

Figure 1 is a vertical section of my device.

Fig. 2 is a side elevation of the same.

In carrying out this invention an outer tank 1 is provided with a downwardly extending pipe 2 having at its lower end a screw thread capable of being screwed into and supported by the water supply pipe 3. Fastened within said pipe 2 is a disk 4 having a port 5 for the admission of water, said opening being made in the form of a valve seat. At a higher point in pipe 2 a guide disk 6, provided with openings 7 for the passage of water therethrough, is secured, and through the center of said disk is a screw threaded opening 8. The inner tank 9 is provided with a downwardly extending stem 10, the lower end of which is enlarged and threaded to fit and pass through the threaded opening 8 in disk 6. This enlarged end 11 of stem 10 terminates in a needle valve 12 which opens and closes port 5. When the enlarged threaded end 11 of stem 10 has been screwed through the threaded opening 8, stem 10 and the attached tank 9 will have a free up and down movement of about one-eighth of an inch. This allows sufficient play for the opening and closing of port 5 by the needle valve 12 and at the same time the inner tank 9 is held at a certain level so that it will fill with water by the overflow from the outer tank 1 and then sink. The inner tank 9 is made of a material that is heavier than water and when filled with water it will sink and cause the needle valve 12 to close port 5 and thereby shut off the inflowing water; but when a portion of the water is used from the inner tank 9 it rises until stopped by the upper side of the enlarged end 11 of stem 10 coming in contact with disk 6, in which position tank 9 will be held until filled with water by overflow from tank 1, when it will sink and cause the needle valve 12 to close inlet port 5. A

guide disk 13 having ports 14 therein may be placed in the upper portion of pipe 2 to serve as an additional guide for stem 10.

Having described my invention what I claim is:

A water tank comprising an outer tank having an opening in the bottom thereof; a downwardly extending pipe secured to said tank around said opening; a disk in said pipe, said disk having a port therein; a guide disk having openings therein, the central one being threaded, between said tank and said last disk; and an inner tank having a downwardly projecting stem, the lower end of which stem is enlarged and threaded and terminates in a needle valve, said enlarged end being adapted to pass through the threaded hole of the guide disk.

LUCIUS D. COPELAND.

Witnesses:

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MARY L. DRINKWATER.

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