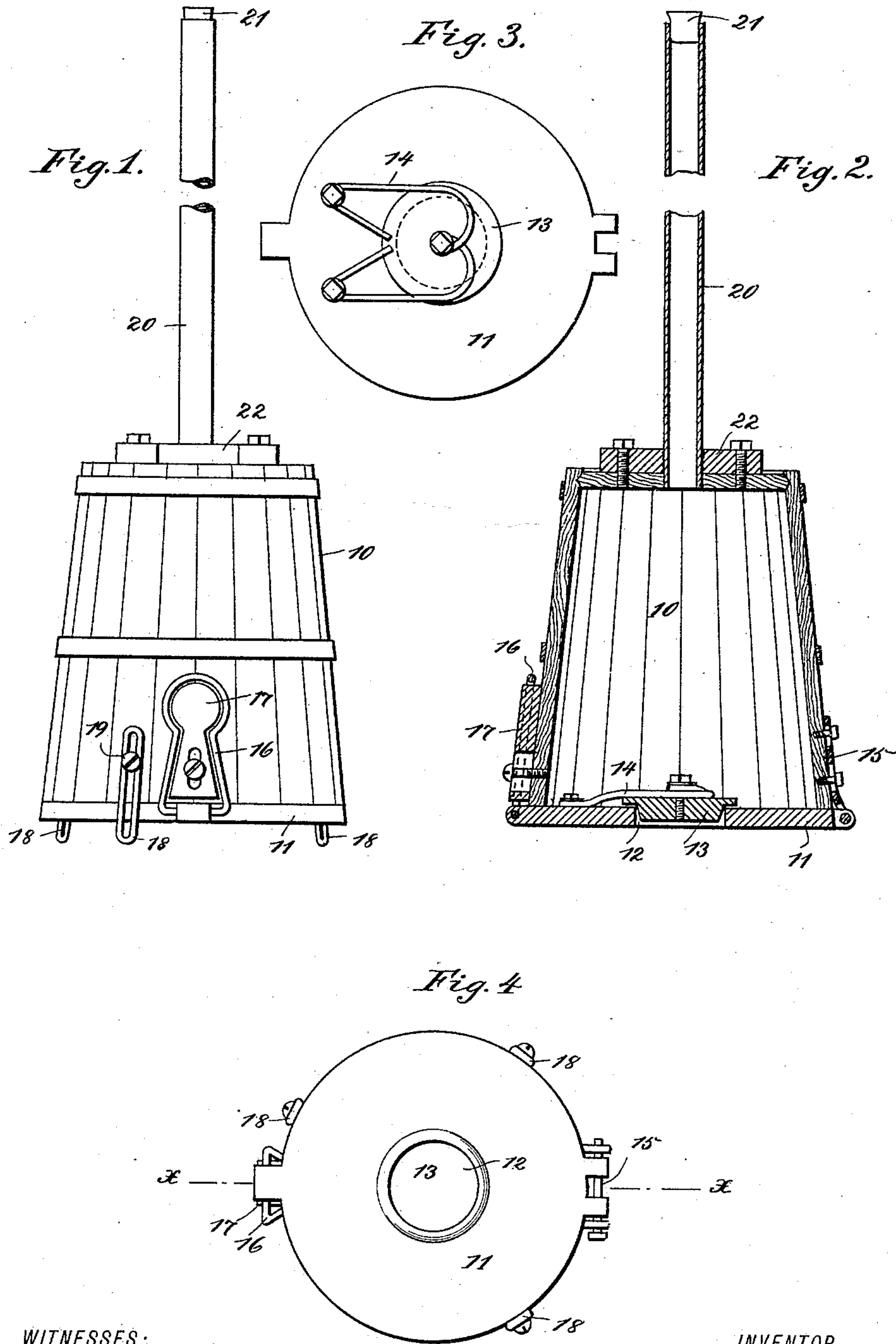


(No Model.)

W. A. PALMER.
CISTERN CLEANER.

No. 409,862.

Patented Aug. 27, 1889.



WITNESSES:
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WILLIAM A. PALMER, OF PLYMOUTH, MICHIGAN.

CISTERN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 409,862, dated August 27, 1889.

Application filed April 8, 1889. Serial No. 306,377. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. PALMER, of Plymouth, in the county of Wayne and State of Michigan, have invented a new and
5 useful Improvement in Cistern-Cleaners, of which the following is a full, clear, and exact description.

My invention relates to an improvement in cistern-cleaners, and has for its object to provide a cleaner capable of convenient manipulation and of simple and durable construction, which may be introduced into a cistern to clean the same without fouling the water therein.

15 The invention consists in the novel construction and combination of the several parts, as will be hereinafter more fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying
20 drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the device. Fig. 2 is a central vertical section on line $x x$
25 of Fig. 4. Fig. 3 is a plan view of the bottom of the device removed, illustrating the application of the spring-valve; and Fig. 4 is a bottom plan view of the complete device.

The body of the device 10 is preferably
30 conical and provided with a hinged metal bottom plate 11, which bottom plate 11 is provided with a central aperture 12, covered upon the inner side by the valve 13, held in contact with the inner face of the bottom
35 plate by means of a spring 14, attached at one end to the plate and at the other end to the valve, as best illustrated in Fig. 3. The spring 14 ordinarily consists of a rod of suitable spring metal attached, as aforesaid, to
40 the plate at one side of the valve and carried over the valve in a double loop to an attachment thereto. The extremities of the said rod are also made to bear upon the upper surface of the valve. A hinge 15, whereby the
45 bottom plate is secured to the body of the device, is detachably attached to the said body, one member of the hinge being to that end provided with a slot or slots, and screws or suitable fastening devices are passed
50 through the slots of the hinge into the body.

A hasp 16 is hinged to the front of the plate or diametrically opposite the hinged connection of the said plate and body, which hasp is ordinarily bent to a key-hole shape, as illustrated at Fig. 1, and made to pass over a
55 keeper-block 17, of similar shape, vertically adjustable upon the body of the device. Near the lower end of the device a series of adjustable legs 18 are secured, which legs usually consist of a link secured to the body
60 by means of a screw 19. By this construction the legs may be made to project below the bottom of the device as far as desired, thereby regulating the distance the valve-plate shall be from the bottom of the cistern to be
65 cleaned. In the upper end of the device a long tube 20 is introduced, provided at the upper end with a suitable stopper or plug 21, and held in position at the lower end by a collar 22, secured in any approved manner to
70 the upper end of the body 10, as best shown in Fig. 2.

In operation, when the device is inserted in the cistern and reaches the bottom, the stopper 21 is removed from the tube 20, where-
75 upon the air confined in the body of the device is suffered to escape, and the water and sediment at the bottom of the cistern thereupon force the valve 13 upward and fills the
80 body of the device, passing upward a distance in the tube, and as the said tube is of sufficient length to project upward above the surface of the water the water at the said
85 surface is not disturbed or fouled by the escape of any of the sediment, as heretofore when the tube has not been employed. In
90 this latter event the water passing upward into the body will also pass out at the top in following the exit of the air and so mingle with and contaminate the water at the surface of the cistern. It is obvious that all this trouble is avoided by the use of the device herein described.

Having thus described my invention, I claim as new and desire to secure by Letters Patent— 95

The combination, with a hollow body having an open lower end, a plate adjustably hinged to the body covering the said open end and provided with an inwardly-opening valve, a keeper-block adjustably secured to 100

the outer face of the body, and a hasp hinged to the bottom plate capable of contact with the keeper-block, of legs adjustably secured to the exterior of the body extending below
5 the bottom plate, a tube projected from the upper end of the body, and a plug or stopper detachably inserted in the upper end of the tube, all combined for operation substantially as shown and described.

WILLIAM A. PALMER.

Witnesses:

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HIRAM TAFFT.