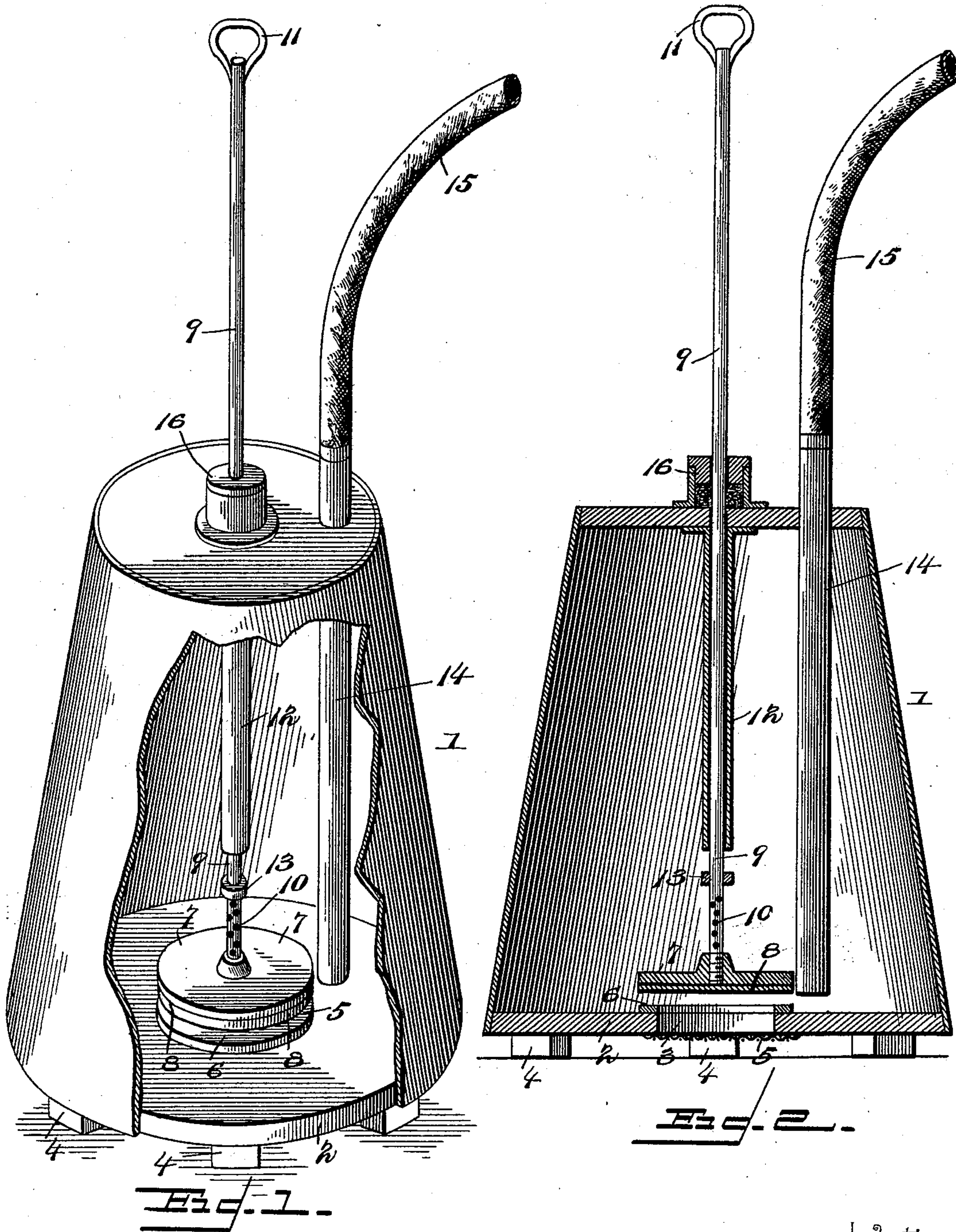


(No Model.)

J. MILLER, Sr.  
WELL OR CISTERN CLEANER.

No. 519,431.

Patented May 8, 1894.



Inventor  
Joseph Miller, Sr.

Witnesses  
C. H. Stewart  
S. P. Wolhaupter

By his Attorneys.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

JOSEPH MILLER, SR., OF HUNTINGBURG, INDIANA, ASSIGNOR OF ONE-HALF  
TO FRANCIS M. BATTLES, OF SAME PLACE.

## WELL OR CISTERN CLEANER.

SPECIFICATION forming part of Letters Patent No. 519,431, dated May 8, 1894.

Application filed July 25, 1893. Serial No. 481,446. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH MILLER, Sr., a citizen of the United States, residing at Huntingburg, in the county of Dubois and State of Indiana, have invented a new and useful Well or Cistern Cleaner, of which the following is a specification.

This invention relates to well and cistern cleaners; and it has for its object to provide certain improvements in devices of this character whereby wells and cisterns may be readily and effectively cleaned of dirt and other sediment without stirring up the water in such well or cistern, and without the removal of the device therefrom after it is filled each time.

To this end the main and primary object of the present invention is to provide an improved cleaner which is adapted to be placed on the bottom of the well or cistern and left in such position until the well or cistern is thoroughly and completely cleaned, thereby overcoming the disadvantages to many devices of this character, which are continually raised and lowered into the well or cistern during the operation of cleaning and necessarily stir up the water therein.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a perspective view partly in section of a well and cistern cleaner constructed in accordance with this invention. Fig. 2 is a central vertical sectional view thereof.

Referring to the accompanying drawings, the numeral 1 designates a cylindrical cleaner bucket of an approximately frusto-conical shape corresponding to the shape of the buckets employed in devices of this character, and said cylindrical cleaner bucket is closed at its top and bottom. The bottom 2, of the bucket 1, is suitably secured in position within the lower end thereof, and is provided with a central circular valve opening 3, and a series of depending feet 4, which rest on the bottom of the well or cistern and serve to hold the cleaner sufficiently above the bot-

tom of the well or cistern in order to leave a free passage into the central circular valve opening thereof. The bottom valve opening 3, of the cleaner bucket is covered by a screen strainer 5, which prevents any matter or substance from working into the cleaner bucket which would clog the discharge thereof, and said bottom valve opening 3, is surrounded, inside of the cleaner bucket, by the raised valve seat 6, over which is adapted to work the valve disk 7. The valve disk 7, is provided upon the lower face thereof with the washer packing 8, which fits on the raised valve seat 6, and makes a water tight joint therewith, and said valve disk 7, is secured to the inner lower end of the vertically movable hollow valve stem or tube 9. The hollow valve stem or tube 9, to the lower end of which is attached said valve disk, is provided at a point just above the said valve disk with a series of air vents or openings 10, which provide for the admission of air into the cleaner bucket, and the escape of air therefrom while filling. The said valve stem or tube 9, is sufficiently long so as to extend to the top of the well or cistern, and is provided at its upper open end with a suitable handle 11, by means of which it may be readily manipulated, and said stem or tube is designed to work through the inner depending combined guide and stop tube 12. The combined guide and stop tube 12 is secured in the closed top of the cleaner bucket and depends therein to a suitable distance above the bottom of such bucket, so as to form a steady-ing guide for the valve stem or tube, while at the same time also forming a stop to limit the opening of the valve, which is secured by arranging a stop collar 13, on the stem or tube above the air vents therein, and which stop collar is adapted to come in contact with the lower end of the guide and stop tube 12, as clearly indicated in the drawings.

The cleaner bucket is relieved of its contents through the inner suction pipe 14. The suction pipe 14, is arranged within the cleaner bucket and projects from the top thereof to within a very short distance of the bottom thereof, and the upper end of said suction pipe projects through the top of the cleaner bucket and has connected therewith one end



of a pump pipe 15, the other end of which is suitably connected with any ordinary suction pump which may be employed for draining the contents of the cleaner bucket.

5 A stuffing box 16 is arranged on top of the cleaner bucket in a line with the upper open end of the tube 12, so as to surround the hollow valve stem or tube 9, and insures a water tight joint at that place, so as to prevent  
10 the clean water of the well or cistern from finding its way into the cleaner bucket.

Now from the foregoing it is thought that the construction and operation of the herein described well and cistern cleaner will be  
15 readily apparent. In using the cleaner, it is simply necessary to lower the bucket into the well or cistern until it rests on the bottom thereof, the valve 7, being closed while sinking, since the handle at the upper end of the  
20 valve stem or tube is grasped and pressed downward in the act of sinking the bucket in the water of the well or cistern. When the bucket has been seated on the bottom of the well or cistern, the valve 7, is lifted from its  
25 seat by pulling up the stem or tube 9, and the opening of such valve disk is limited by the collar 13 engaging the lower end of the tube 12. This allows the dirt and sediment together with the dirty water to rush into the cleaner bucket 1, the air inside of said  
30 bucket of course escaping out through the hollow valve stem or tube in a sufficient quantity to admit considerable water into the bucket. The valve is now closed down onto  
35 its seat and the pump connected with the pipe 15 started up, thereby sucking out and discharging the dirty contents of the cleaner bucket. This operation is continued until the well or cistern is entirely cleaned and  
40 without once removing the cleaning device. In connection with the operation of the device just described it is to be noted that the upper end of the hollow valve stem or tube 9, terminates conveniently below the handle  
45 11, connected thereto, whereby the thumb of the finger or other plug may be placed over the upper end of said tube to temporarily close the same after the contents of the bucket have been discharged, and while the valve 7  
50 is still closed. With the valve 7 closed after the bucket has been filled, the pumping operation is started, and, by observing the pump, the operator will notice when the contents of the bucket have been discharged, and at this  
55 time, by temporarily closing the stem or tube 9, a partial vacuum will be formed within the bucket, so that it is simply necessary to stop the pump and lift the valve 7 to allow the water to rush into and practically fill up the  
60 entire bucket. The valve is now closed down, and the stem or tube 9 unplugged in order to supply air to the interior of the bucket where-

by means shall be provided for overcoming the vacuum while the pump is in operation to relieve the bucket of its dirty contents. 65

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 70

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a well and cistern cleaner, the closed bucket having a bottom valve opening an inwardly extending guide attached at its upper  
75 end to the top of the bucket, a vertically moving hollow tube working through the top of the bucket and said guide and having an air vent and a stop above said vent adapted to  
80 engage the lower end of said guide, the valve attached to the inner end of said tube, and a pump suction pipe leading into the bucket, substantially as set forth.

2. In a well and cistern cleaner, a closed  
85 bucket having bottom supporting feet, a bottom valve opening, and a raised valve seat surrounding said opening, an inner guide tube depending from the top of said bucket, a vented valve stem or tube moving vertically  
90 within said guide tube and carrying at its inner lower end a valve disk working onto said raised valve seat, and a pump suction pipe arranged within the bucket and depending to within a short distance of the bottom  
95 thereof, substantially as set forth.

3. In a well and cistern cleaner, the closed cleaner bucket having a screened bottom valve opening and a raised valve seat surrounding the inner edge of said valve opening, a combined guide and stop tube depending within the bucket from the top thereof, a stuffing box arranged on top of said bucket in a line with said guide and stop tube, a vertically moving hollow valve stem sliding  
105 through said stuffing box and the combined guide and stop tube, said stem having a handle at its upper end and provided with air vents or openings near its inner lower end, a valve disk connected to the inner lower end of said  
110 valve stem and working over the raised valve seat, a stop-collar attached to the valve stem above the valve disk, and a suction discharge pipe leading through the top of the bucket and projecting within the same near to the  
115 bottom thereof, substantially as set forth.

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

JOSEPH MILLER, SR.

Witnesses:

G. P. WILLIAMS,  
HENRY SCHNECK.