

(No Model.)

O. L. WELDON.

DEVICE FOR CLEANING CISTERNS OR WELLS.

No. 567,181.

Patented Sept. 8, 1896.

Fig. 1.

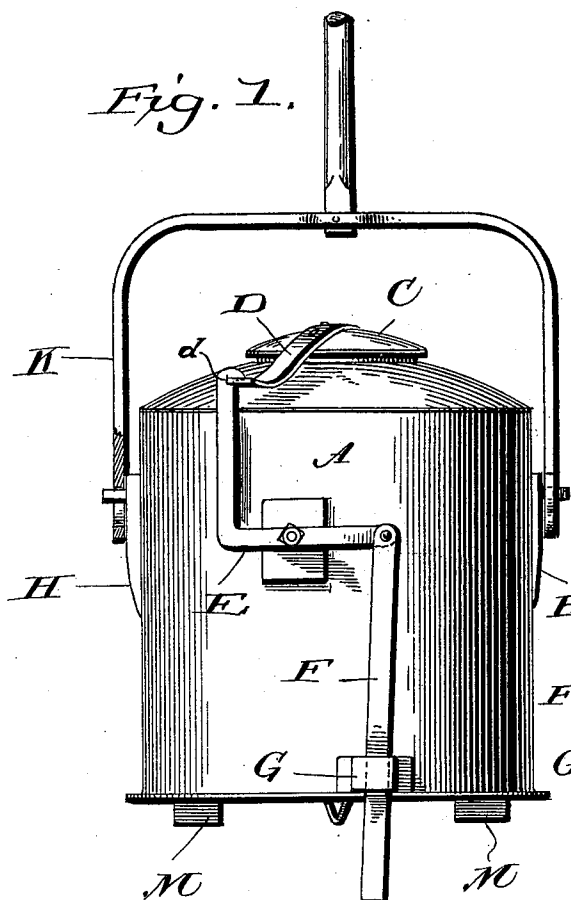


Fig. 2.

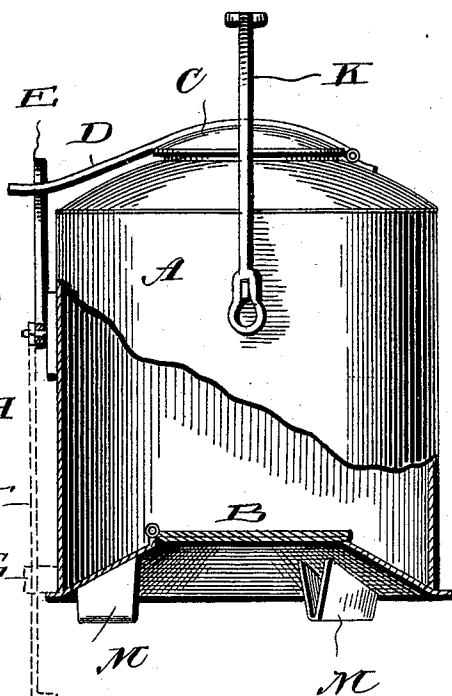
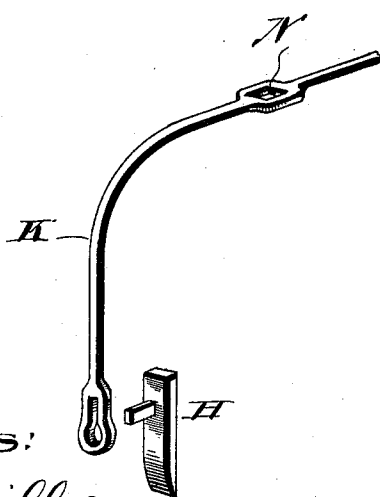


Fig. 3.



Witnesses:
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Att'y.

UNITED STATES PATENT OFFICE.

OLIVER L. WELDON, OF WOLCOTT, NEW YORK, ASSIGNOR OF ONE-HALF TO
HARVEY C. MOSES, OF SAME PLACE.

DEVICE FOR CLEANING CISTERNS OR WELLS.

SPECIFICATION forming part of Letters Patent No. 567,181, dated September 8, 1896.

Application filed July 9, 1896. Serial No. 598,564. (No model.)

To all whom it may concern:

Be it known that I, OLIVER L. WELDON, a citizen of the United States, residing at Wolcott, in the county of Wayne and State of New York, have invented certain new and useful Improvements in Devices for Cleaning Cisterns or Wells; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in devices for cleaning wells and cisterns of any foreign matter that may accumulate and settle in the bottoms thereof without riling or stirring up the filth in the bottom of the well or cistern; and the especial object of the present invention resides in the provision of a receptacle for this purpose which has suitable valve-regulated apertures in its top and bottom whereby air may be conveyed therein, and as the receptacle comes in proximity to the bottom of the cistern the valves are so actuated as to allow the air to escape at the top of the receptacle, while the settlings in the cistern are drawn in through the bottom by the vacuum caused by the escape of air through the top of the bucket or receptacle.

Another part of the invention resides in the provision of a device of this character which is equipped with means for holding the receptacle or bucket rigid when it is pushed down into the cistern or well, and the provision of means whereby the valve regulating the aperture in the upper end of the bucket may be automatically released as the latter comes in contact with the bottom of the well or cistern, thus allowing the air to escape through the water, which will aerate the latter by taking out the impurities of stagnant water.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described and then specifically defined in the appended claim.

I clearly illustrate my invention in the ac-

companying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference marked thereon form a part of this specification, and in which drawings—

Figure 1 is a side elevation of the bucket. Fig. 2 is a side view, partly in section. Fig. 3 is a detail view of an ear and end of bail.

Reference now being had to the details of the drawings by letter, A designates the receptacle or bucket, which is made, preferably, of galvanized iron, or any other material best adapted for the purpose, and located a suitable distance from the lower concaved bottom of the bucket is a valve B, which is pivoted about the rim of an aperture in the bottom of the bucket. This valve is provided with a suitable packing, so as to make it proof against leakage. The top of the said bucket is apertured and has a cover C designed to snugly fit the aperture in the top of the bucket, and D is a strap, one end of which is hinged to the bucket, its other end extended beyond the edge of the said valve or cover C and has an aperture *d* near its free end. Pivoted to the side of the bucket is an angle-bar E, the upper bent end of which is designed to engage in the said aperture *d* in the strap to hold the cover or valve C shut over the aperture in the top of the bucket. Pivoted to the other end of the angle-bar E is the bar F, the lower end of which is guided in the loop G, secured near the bottom of the bucket. The lower end of the said bar F is inwardly bent and extends under the bottom of the bucket a short distance.

Pivoted on the ears or lugs H on the sides of the bucket diametrically opposite are the ends of the bail K. The apertures in the ends of the said bail are elongated, with the lower portions of the apertures being rounded or wider than the upper portions thereof, and as the ears H are not round, but somewhat elongated, it will be seen that only when the bail is raised to its highest limit is the latter allowed to turn laterally, and when the bail is forced down, so that the narrow portions of the apertures in the bail come over the sides of the ears of the bucket, the latter is held rigidly with the bail.

The bottom of the bucket has legs M, which keep the bottom from coming directly against the bottom of the cistern or well. The middle portion of the bail is apertured, as seen at N, in which a rod may be secured to facilitate the placing of the bucket underneath the water.

The operation of the device is simple and will be readily understood. The top cover or valve, being closed and locked by means of the lever engaging in the aperture in the end of the strap, is lowered into the cistern or well to be cleaned, and as the bucket approaches the bottom where the filth is located the bottom of the bar F, which extends below the bottom of the bucket when the top cover or valve is locked shut, comes in contact with the bottom of the cistern or well and causes the end of the strap connected to the top valve to become loosened, and the said valve will open and the air contained within the receptacle will escape into the water and rise to the surface, while the filth in the bottom of the cistern will be drawn through the lower valve-regulated aperture in the lower portion of the bucket by the partial vacuum formed by the escaping air. When the bucket has become full of the filth, the valves will close by gravity, and the filth may be removed through the water without contaminating the same.

The air which is contained in the receptacle and which is carried in the latter to the lower portion of the cistern or well will, as it is allowed to escape through the water and rise

to the surface thereof, aerate the water, as the air will carry with it the impurities of the stagnant water.

The utility of the peculiar construction of the elongated apertures in the bail ends and the shape of the ears will be seen, as it is important to keep the bail rigid with the bucket when they are being forced down against the bottom of the cistern or well, not allowing the bucket or bail to turn sidewise while the valve-operating mechanism is being operated.

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

In a well-cleaning device, the combination with the bucket having a valve-regulated aperture in the bottom thereof, a cover or valve secured to a strap which is hinged to the bucket, the free end of said strap extending over the edge of the bucket, of the angle-lever pivoted to the side of the bucket, one end of which is designed to engage in an aperture in the free end of the said strap, of the bar F pivoted to the other end of the said angle-lever, and its free end extending below the bottom of the receptacle, and the guide through which the said bar F works, all substantially as shown and described.

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

OLIVER L. WELDON.

Witnesses:

DAVID A. FOOTE,
NELLIE W. MOSES.