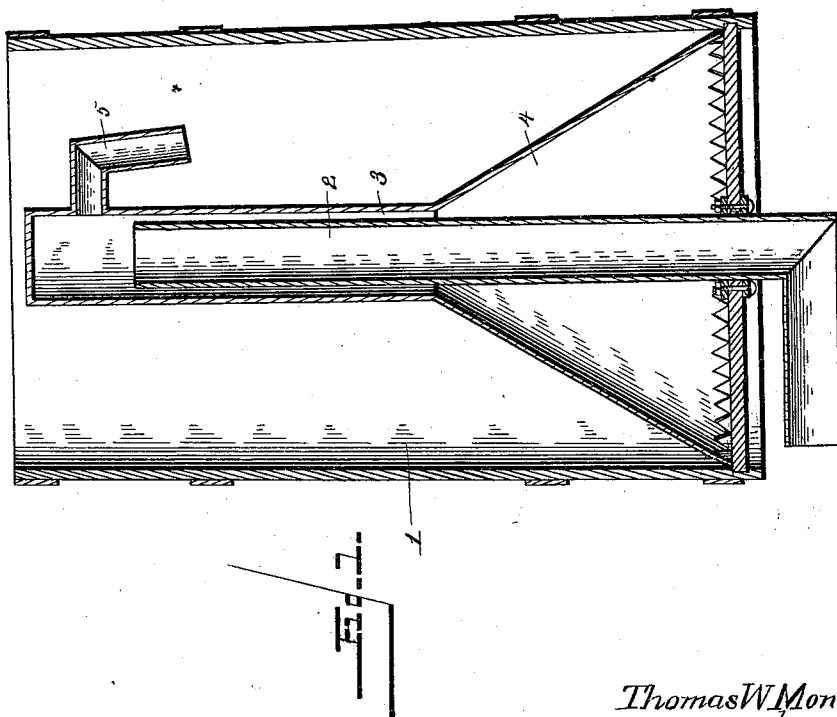
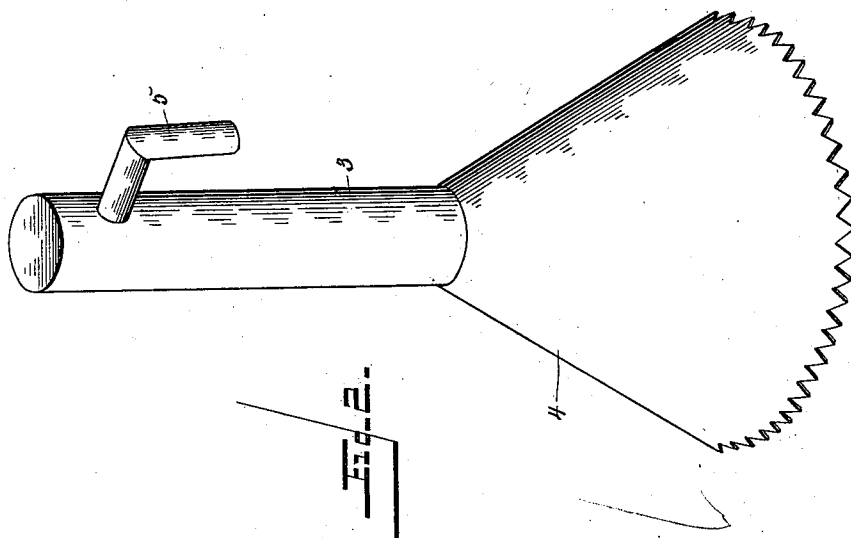


(No Model.)

T. W. MONTGOMERY & J. S. RAMOND.  
SIPHON.

No. 548,215.

Patented Oct. 22, 1895.



Witnesses

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# UNITED STATES PATENT OFFICE.

THOMAS WOODS MONTGOMERY AND JOHN STANISLAUS RAMOND, OF NEW ORLEANS, LOUISIANA.

## SIPHON.

SPECIFICATION forming part of Letters Patent No. 548,215, dated October 22, 1895.

Application filed January 23, 1895. Serial No. 535,970. (No model.)

*To all whom it may concern:*

Be it known that we, THOMAS WOODS MONTGOMERY and JOHN STANISLAUS RAMOND, citizens of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Siphon, of which the following is a specification.

This invention relates to that class of siphons which are adapted for removing from cisterns and other reservoirs sediment and other impurities which gather there, as will be understood, and which must be removed so as to be prevented from mingling with pure water. Usually these devices consist of merely a tube or other water-conductor extending downwardly to the bottom of the receptacle or reservoir and having their upper ends projected out of the upper end of the reservoir, so as to gather the sediment and remove it, as will be understood. Our invention embodies this broad idea and is distinguished from the prior devices in that the tube for withdrawing the sediment is projected over the bottom of the reservoir and extends to the upper portion of the interior of the reservoir, it being associated with a cap or shield which divides the water at the bottom of the reservoir from that at the upper portion, and which prevents the withdrawal of any water except that which is impregnated with the sediment. The shield or cap is also provided with a vent-tube capable of and adapted to break the vacuum within the withdrawing-tube, so as to prevent the unnecessary removal of water.

All of these features will be fully described hereinafter, and finally embodied in the claims, and they are illustrated in the drawings, wherein—

Figure 1 represents a vertical section of a tank or cistern having our improvement supplied thereto. Fig. 2 is a detail perspective of the cap or shield, the same being shown detached from the cistern.

The numeral 1 indicates the cistern, which may, of course, be of any form or construction, and 2 a pipe for withdrawing the impure water. This pipe 2 extends centrally in the tank and has its upper end terminating a short distance below the upper end of

the tank, while the lower extremity of the pipe 2 below the tank is extended downwardly and thence horizontally. This horizontal extent is not essential, however, since the pipe may be extended in any direction which may suit the convenience of the user. The upper end of the pipe 2 is open, so as to permit the free entrance of water, and, of course, the lower end of the pipe must be open also, so as to permit the passage of the water out of the same.

The cap or shield comprises a tubular barrel 3, having a closed upper end, and an open lower end terminating in a funnel-shaped or conical base portion 4. This base portion has its lower end open, and the edge thereof is notched, so that the water may pass freely under it, while the base portion is rested upon the bottom of the tank 1. The largest diameter of the base portion 4, or the lower end thereof, is equal to the diameter of the tank 1, so that the said base portion will inclose the bottom of the tank, and consequently all the sediment that may be collected thereon.

The upper portion of the barrel 3 is provided with a vent-tube 5, which extends out horizontally and thence downwardly, and which communicates with the interior of the barrel, so as to break the vacuum formed in the pipe 2 during the operation of withdrawing the sediment.

The cap or shield is arranged so that its barrel 3 will embrace the upper portion of the tube or pipe 2, and so that the vent-tube 5 will extend downwardly and be submerged in the water at the upper portion of the tank. When the parts are in operative adjustment, the water will surround the cap or shield and will pass up into the same and into the pipe 2.

Supposing now that it is desired to withdraw the water and other matter which may be inclosed by the base portion 4 of the cap or shield, all that will be necessary will be to open the pipe 2, which will permit the water to flow through the same, and this flow will be continued until the water in the cistern is lowered below the open end of the tube 5, whereupon the previously-sealed tube 5 will be opened, thereupon breaking the vacuum within the barrel 3, or, in other words, permitting air to enter the same, which will cause

the water in the cap or shield to be lowered below the upper end of the pipe 2. This will effectually prevent the water from passing out of the tube 2. The water drawn off by this operation will carry with it a portion of the sediment and other impurities that may have been collected at the bottom of the tank or reservoir, and it will be impossible to draw off any more by means of the tube 2 until the water in the tank rises to a height above the vent-tube 5, whereupon said pipe will be sealed again and the parts placed in such a condition as will permit the establishment of a vacuum in the pipes. If so desired, the pipe 2 may be kept open all the time, which will cause it to expel or to carry off the water as soon as it will rise above the level of the tube 5. Thus the appliance may serve as an overflow device as well as a purifier, and by this means the stale and impure water from the bottom of the tank is drawn off whenever necessary without disturbing the pure or fresh water which has been placed in the tank and which is located at the upper portion thereof. All of this will be understood, since it does not differ from the principle of other siphon cistern-cleaners.

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

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a water receptacle, of a pipe extended upwardly from its bottom and open at its upper end, the lower end of said pipe being also open and projected through the base of the receptacle, and a cap or shield embracing such pipe, said cap or shield comprising a barrel having a closed upper end and embracing the open upper end of the pipe aforesaid in such manner as to leave an intervening space or water-way for adapting the water to pass from the interior of said cap into said pipe, said cap or shield also comprising a hollow conical base resting upon and held in place by the bottom of the water receptacle, and a downwardly extending vent opening in the upper end of said barrel and in proximal relation to the open upper

end of the pipe therein, substantially as and for the purpose specified.

2. The combination with a water receptacle, cylindrical in shape, of a pipe arising therein and located centrally thereof, the upper end of said pipe being open and the lower end thereof being projected through the base of said receptacle and also left open, and a cap or shield embracing said pipe and arranged within the water receptacle and comprising a tubular barrel closed at its upper end and embracing the open upper end of the pipe aforesaid in such manner as to leave an intervening space or water-way for permitting the water to pass from the interior thereof into said pipe, a downwardly extending vent opening communicating with said barrel and located adjacent to the upper end of said pipe and a conical base formed integrally with said barrel and of a diameter corresponding to the internal diameter of said receptacle, said conical base being provided with openings for admitting the water thereto and being supported and held stationary upon the bottom of said receptacle, substantially as and for the purpose described.

3. The combination with a water receptacle, of a pipe extended upwardly from the bottom thereof, and having its upper end open and extended through the bottom of said receptacle and also left open, and a cap or shield embracing said pipe and held stationary within the receptacle, said cap or shield being disposed around the pipe aforesaid in such manner as leave an intervening space which will permit the water to flow from the interior of the cap or shield into said pipe, said cap or shield being left open at its lower end to permit the water to enter the same, and a downwardly extending vent in said cap or shield located in proximal relation to the upper open end of said pipe, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

THOS. WOODS MONTGOMERY.  
JOHN STANISLAUS RAMOND.

Witnesses:

G. G. KRONENBERGER,  
THOS. D. WHITMORE.