(No Model.)

# W. B. SIMPSON.

## WATER ELEVATOR.

No. 483,396. Patented Sept. 27, 1892.

Fig. 1.

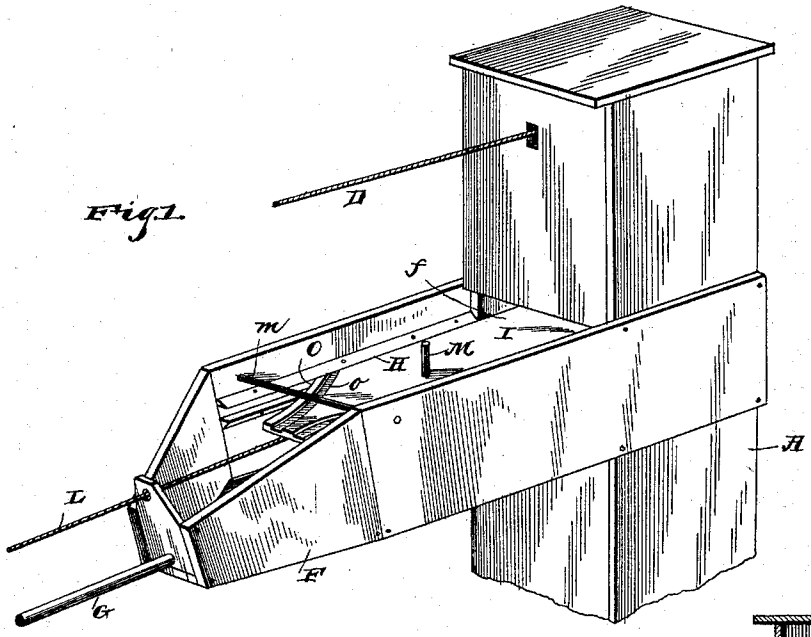


Fig. 2.

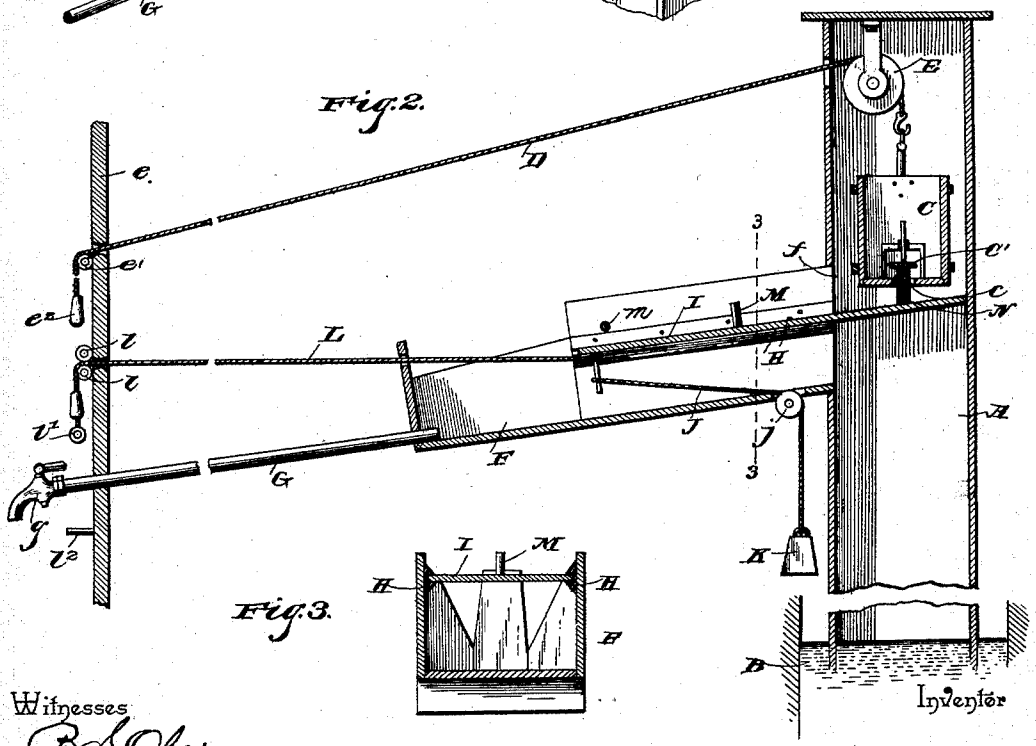


Fig. 3.




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# UNITED STATES PATENT OFFICE.

WILLIAM BUTLER SIMPSON, OF BENTON, LOUISIANA.

## WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 483,396, dated September 27, 1892.

Application filed May 20, 1892. Serial No. 433,734. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BUTLER SIMPSON, a citizen of the United States, residing at Benton, in the parish of Bossier and State of Louisiana, have invented a new and useful Water-Elevator, of which the following is a specification.

This invention relates to water-elevators; and it has for its object to provide an improved device of this character which is not only designed to be used to elevate water from a well or spring adjacent to a dwelling, but also to provide means for carrying the water from the point to which the same has been elevated to such dwelling.

To this end the main and primary object of the invention is to provide such an elevator and carrier by means of which the inconvenience of carrying water from an elevator to its point of use is avoided, as well as to provide a device easily and efficiently manipulated.

With these and many 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 of the upper portion of a water-elevator constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view on the line 3 3 of Fig. 2.

Referring to the accompanying drawings, A represents a tubular well-box having a lower open end extending within the well or spring B and is designed to accommodate the elevator-bucket C, working within said box and controlled by means of the elevating-rope D, connected with the bail of the bucket within the well and passing over the guide-pulley E, suspended from the closed top of the box within the same. The said elevating-rope D passes from said box and through the wall *e* of the dwelling, kitchen, stable, or, in fact, any point where it is desired to control the elevator, and at such point the said rope passes over a suitable guide-roller *e'* and terminates in a handle or ring $e^2$, by means of which the rope may be operated to raise and lower the bucket C. The said bucket C is provided with a bottom valve C', inclosing the bottom-valve opening *c* and adapted to work within the bucket to discharge the water elevated thereby at the proper moment.

Connected with the well-box A, near the upper end thereof, is the downwardly-inclined closed spout or trough F, which is designed to receive the discharged water from the elevated bucket and lead the same through the conducting-pipe G, through the wall *e*, to the point of use, where the flow of water is controlled by the faucet *g*, connected to said conducting-pipe. The said conducting-pipe G is connected with the inclined trough or spout F at its outer front end, while said trough or spout communicates with the well-box near its upper end through the discharge-opening *f* in one side of the well-box above the plane of the bottom of said trough or spout.

Located within the trough or spout F, on opposite sides thereof, are the opposite guide-grooves H, within which slides the false floor or bottom I. The said sliding floor I slides within said grooves and into the well-box A, and is held within said well-box and entirely across the same by means of the weighted cord J, connected to the outer end of said sliding floor, passing over the pulley *j* in the bottom of the trough or spout, and supporting the suspended weight K, connected to the other end of said cord, so as to normally hold the sliding floor within the well-box; but it can be readily seen that a retractile spring as the equivalent of the weighted cord may be employed, if found desirable, for normally drawing the floor within the well-box, said floor of course being in an inclined plane corresponding to the inclination of the trough or spout. The sliding floor I slides through the discharge-opening of the well-box and is drawn out of said well-box, and therefore out of the path of the water-bucket C, by means of the operating-cord L, connected with the outer end of said floor and passing therefrom to and through the wall *e*, adjacent to one end of the elevating-rope D, so that the same may be controlled at the same time. The operating-cord L preferably passes through the guide-rollers *l*, connected to said wall, and carries at its end the securing-ring *l'*, which is designed to be placed over the pin $l^2$, projecting from said wall below the point where the

operating-cord passes therethrough, so as to hold the false floor in its outdrawn position while the bucket is being raised or lowered, the said floor being limited in such outdrawn position by means of the stop-pin M rising therefrom, coming in contact with the transverse stop bar or rod *m*, extending transversely across the trough or spout F.

When the bucket has been raised from the bottom of the well with the water therein, the sliding floor I is released and is actuated by the weight to slide through the discharge-opening of the well-box into and across said box. The bucket is now lowered upon the said floor and over the valve-pin N, rising from said floor, which pin strikes the valve C′ as the bucket is lowered thereupon and allows the water to escape over the inclined floor and into the trough or spout F, from which the same is drawn through the conducting-pipe G, and in order to provide for the ready flow of the water from the floor into the trough the outer end of the said floor is reduced, as at O, and provided at such end with the opposite converging water-groove *o*, tending to direct the water directly into the bottom of the trough or spout. To refill the bucket, the floor is again drawn from within the box to allow the bucket to be lowered, as will be readily apparent.

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

1. In a water-elevator, the vertical well-box having a lateral discharge-opening, an inclined closed spout having its bottom arranged in a plane below said opening, the valved water-bucket working in said box, a weight-controlled sliding false floor arranged within said spout and adapted to automatically return through said discharge-opening and the well-box under the bucket when the latter is raised, a conducting-pipe leading from the outer closed end of said spout to the point of use, and separate operating-ropes connected to said bucket and the sliding floor, respectively, and extending to a point adjacent to the end of said conducting-pipe, substantially as set forth.

2. In a water-elevator, the tubular well-box having a side discharge-opening, an inclined closed distributing-spout arranged below said opening and provided with opposite side grooves in a line with said opening, a well-bucket provided with an inwardly-opening valve, a weight-controlled sliding floor working in said guide-grooves and through said discharge-opening into the well-box and provided with an upwardly-projecting valve-pin upon which the raised bucket is lowered, a conducting-pipe leading from said spout to the point of use, a securing-pin located at such point of use, and an operating-cord connected with the outer end of said sliding floor and provided at its other end with a ring adapted to engage said pin to hold said floor in its outdrawn position, 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.

WILLIAM BUTLER SIMPSON.

Witnesses:

A. R. THOMPSON,

L. B. KELLY.