

(No Model.)

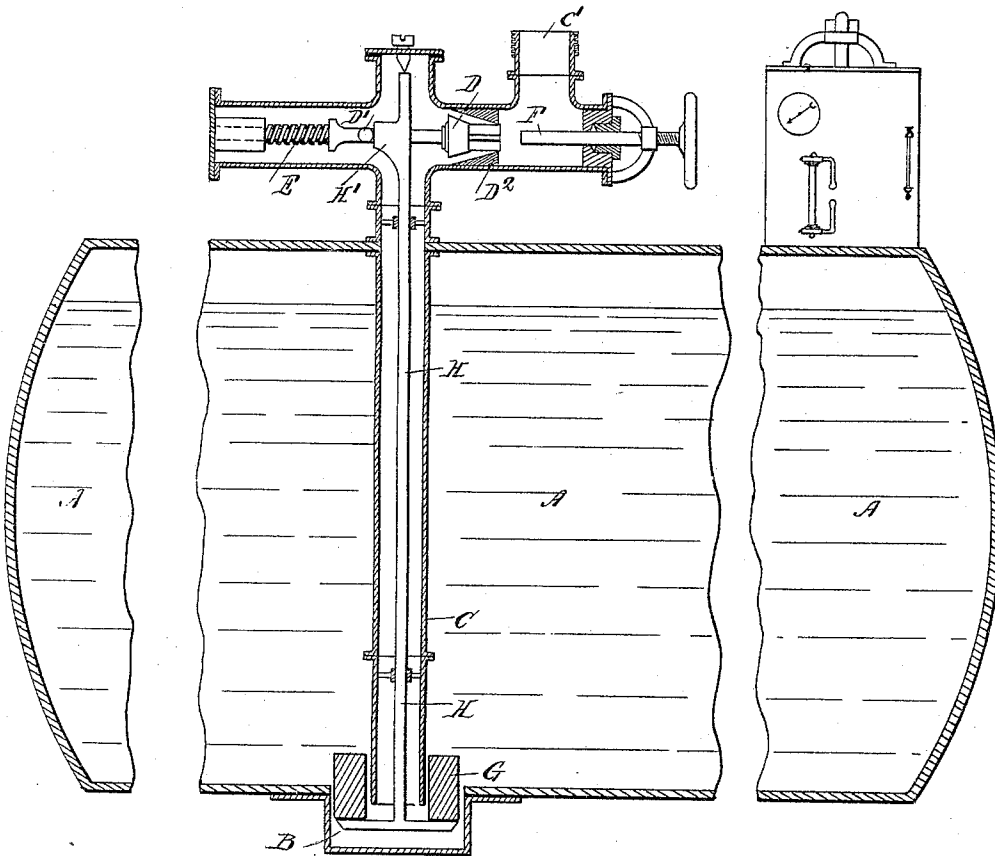
2 Sheets—Sheet 1.

J. FAGOAGA.  
WATER ELEVATOR.

No. 449,252.

Patented Mar. 31, 1891.

Fig. 1.



Witnesses

A. J. Haddan  
A. Melhus

Inventor

J. Fagoaga.

By his Attorney A. Haddan.

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FIG. 3.

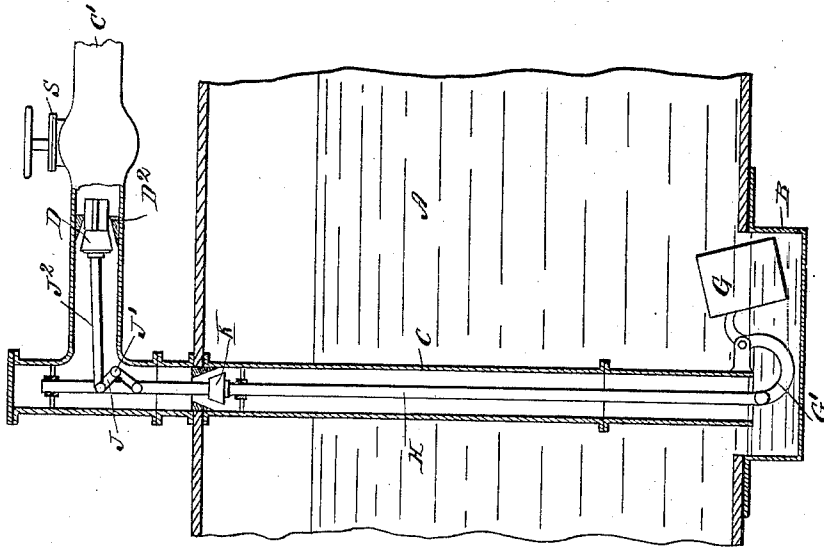
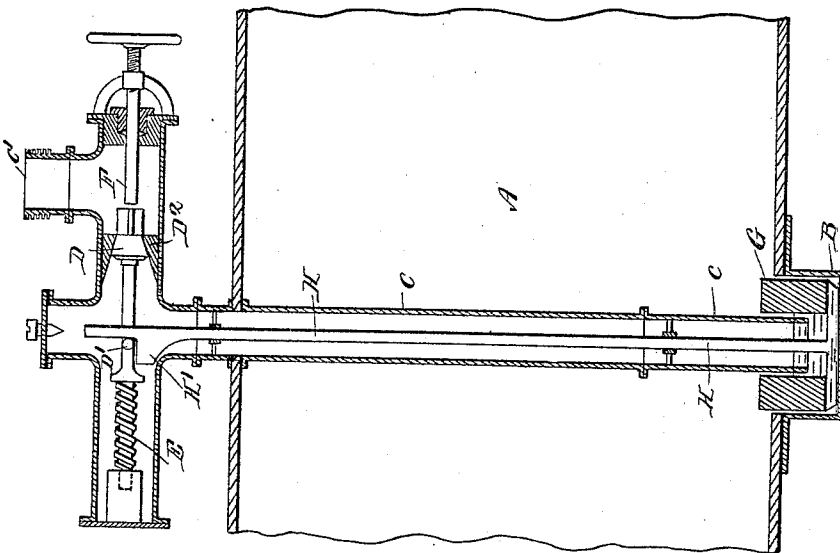


FIG. 2.



Witnesses

*A. J. Hadden*

*A. E. Melhuish*

Inventor

*J. Fagoaga*

by his Attorney *A. Hadden*

# UNITED STATES PATENT OFFICE.

JULIAN FAGOAGA, OF BARCELONA, SPAIN.

## WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 449,252, dated March 31, 1891.

Application filed July 8, 1890. Serial No. 358,110. (No model.) Patented in France January 8, 1890, No. 203,041; in Belgium January 28, 1890, No. 89,330; in Spain February 21, 1890, No. 10,289, and in Italy February 21, 1890, No. 27,027.

*To all whom it may concern:*

Be it known that I, JULIAN FAGOAGA, a subject of the King of Spain, residing at Barcelona, in Spain, have invented a certain new and useful Improvement in Water-Elevators, (for which I have obtained Letters Patent in Spain, No. 10,289, February 21, 1890; France, No. 203,041, January 8, 1890; Belgium, No. 89,330, January 28, 1890; Italy, No. 27,027, February 21, 1890,) of which the following is a specification.

This invention relates to apparatus in which water or other liquid may be stored or placed under pressure of compressed air, and from which it may be expelled by said pressure when desired, such apparatus being suitable for extinguishing fires, filling ships' water-tanks, or such other purpose for which a stream or jet of water under pressure is required.

The improvements consist in providing the receiver in which the water is stored with a suitable outlet controlled by a valve, which, when it is opened by hand or otherwise, is held back from its seat thereafter by the action of a float, so that when the receiver is emptied of water or liquid the float then falling causes or allows the valve to be thereupon closed and the air-pressure in the receiver to be retained by the air being prevented from escaping after the water or liquid has been expelled.

Reference being made to the accompanying drawings, Figure 1 is a longitudinal section of a water-tank made in the form of a boiler and provided with the contrivance for fulfilling the above-mentioned purpose, showing the valve held open by the action of the float. Fig. 2 is a similar view of part of the tank with the float, float-rod, and valve with parts connected therewith, showing the same after the water, &c., have been emptied and the valve closed. Fig. 3 is a similar view of part of the tank, showing a modification in the mode of connecting the float-rod to the valve.

A is a closed tank, having at a suitable place in the floor, being its lowest part, a pocket B.

C is a pipe passing down through the roof of the tank and extending down to within the pocket B. In Figs. 1 and 2 the pipe C extends above the tank and branches laterally, so that space is provided for the valve D, which is pressed on its seat D<sup>2</sup> by spring E, and may be opened or thrust back against the action of the spring by any suitable kind of spindle or rod F to be moved by hand. G is a float in the pocket B. The rod H of this float extends up the pipe C to the head thereof. This rod H carries the laterally-extended projection H', and on the spindle of the valve D is a pin D', this pin and the projection H' being relatively placed, so that when the valve is opened by hand the float lifted by the water rises until the projection H' lies in the path of the pin D' and prevents the valve from closing until the water has been all driven from the tank through the pipe C and outlet C'. The float G eventually falls just before the level of the water in the tank sinks to the edge of the pipe C, and the projection H', passing down from before the pin D', the valve is closed by the spring E and the compressed air in the tank A is retained. When the float-rod H is connected directly to the valve D, this may be done as in Fig. 3 by a bell-crank lever J, pivoted at J' and connected at one end to the float-rod H, and at the other end by a rod J<sup>2</sup> to the valve D. It being necessary here to lift the rod H to close the valve the float G operates the rod H, through a pivoted lever G', connected at one end to the float and at the other to the rod H, instead of the float being directly fastened on the end of the rod so that the falling of the float lifts the rod. An additional valve K is here shown on the float-rod H. The valve D in this modification is not moved by hand, but automatically follows the movement of the float, being open when the float is raised and closed when the float falls. To retain the water in the tank therefore, any convenient form of stop-cock S is placed in the pipe C'.

I claim as my invention—

The combination of a closed tank A, adapt-

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ed to receive water under pressure of compressed air, a pipe C, descending to near the bottom of said tank, a rod H, passing upward through said pipe, a float G, connected  
5 to said rod, and a valve D in said pipe, adapted to be closed simultaneously with the fall of said float, for the purpose set forth.

In witness whereof I have signed this specification in presence of two witnesses.

JULIAN FAGOAGA.

Witness:

MIGUEL FOUT.

C. BONETZDURAY.