

No. 677,959.

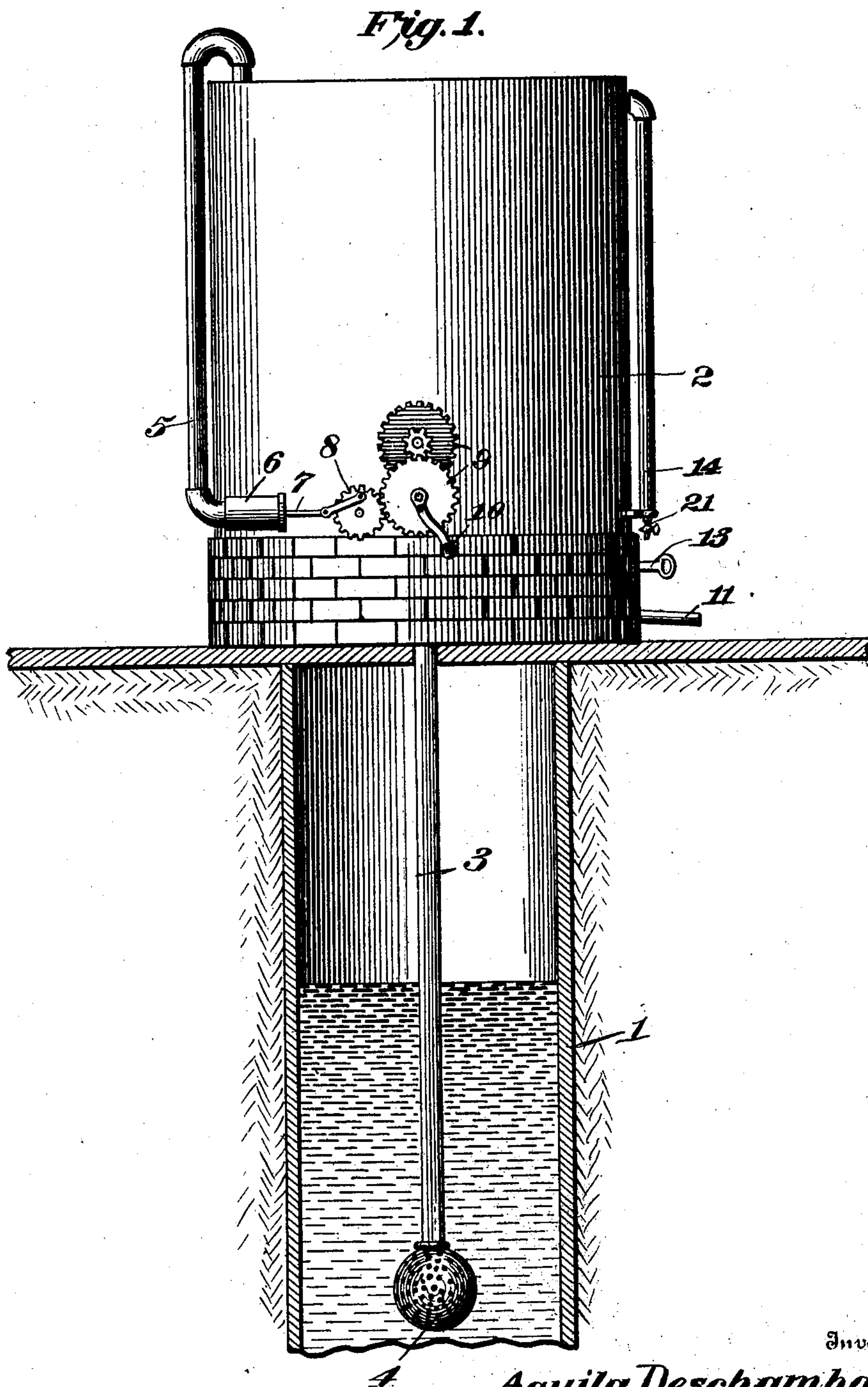
Patented July 9, 1901.

A. DESCHAMBAULT.
WATER TANK.

(Application filed Jan. 24, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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Fig. 2.

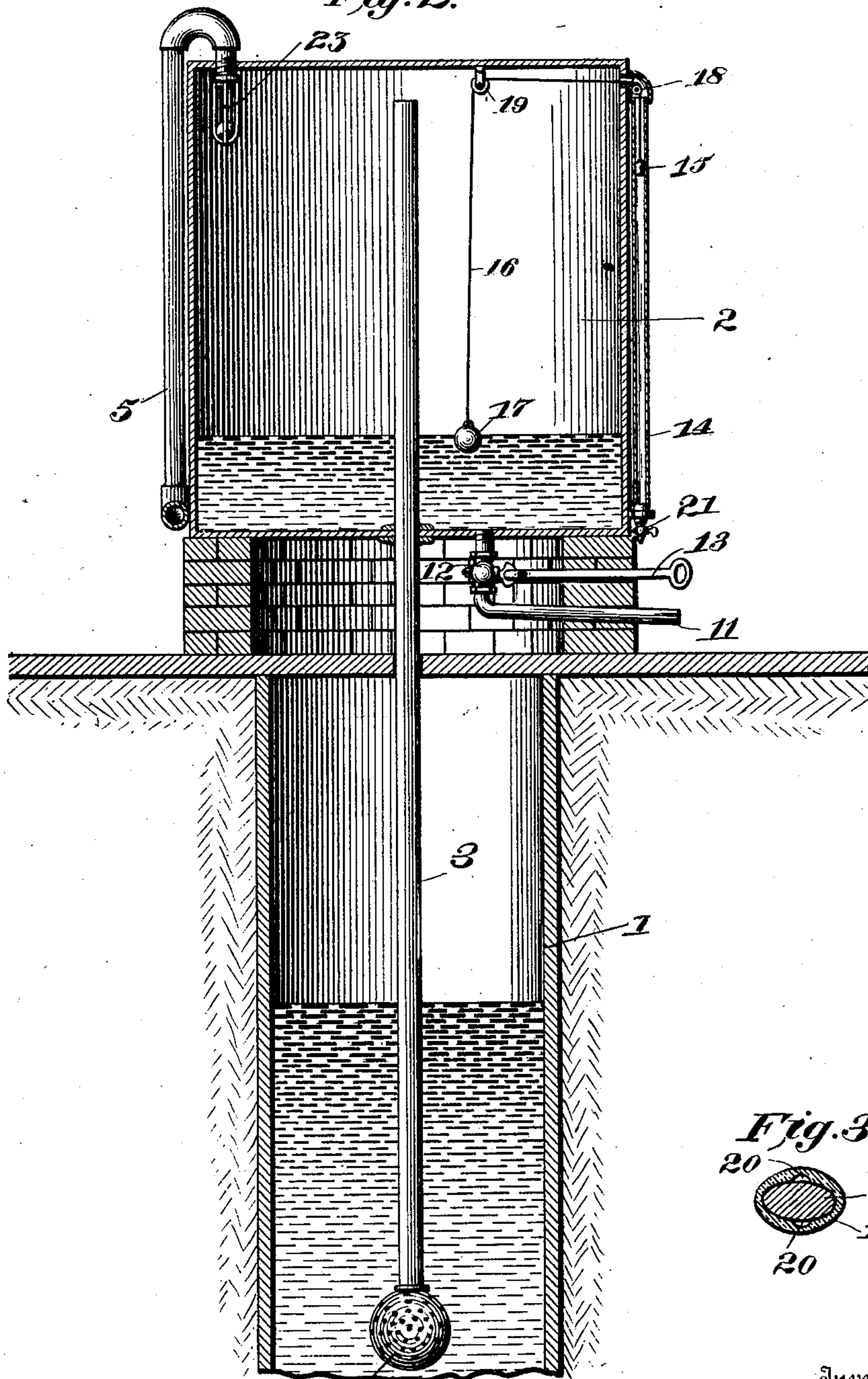
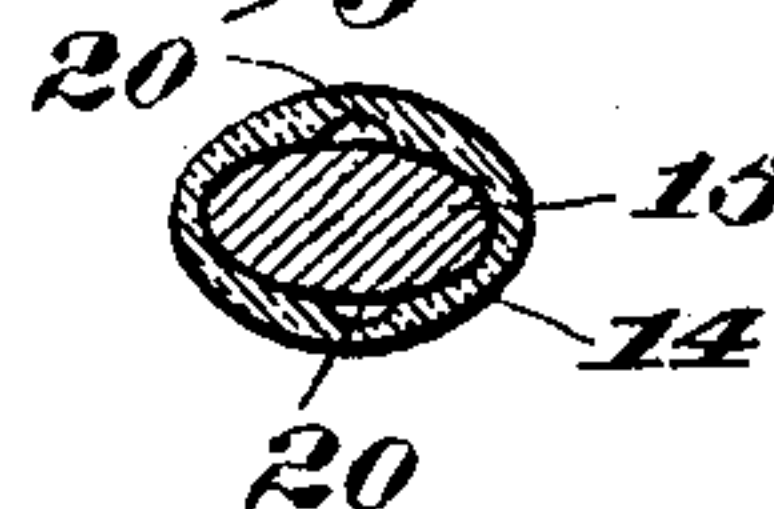


Fig. 3.



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UNITED STATES PATENT OFFICE.

AQUILA DESCHAMBAULT, OF MARSHALL, MINNESOTA.

WATER-TANK.

SPECIFICATION forming part of Letters Patent No. 677,959, dated July 9, 1901.

Application filed January 24, 1901. Serial No. 44,630. (No model.)

To all whom it may concern:

Be it known that I, AQUILA DESCHAMBAULT, a citizen of the United States, residing at Marshall, in the county of Lyon and State of Minnesota, have invented certain new and useful Improvements in Water-Tanks; 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.

My invention relates to improvements in water-tanks of that class in which the supply of water to the tank is effected by the exhaust of air therefrom, so as to create a vacuum therein, which the water under normal pressure from below rushes in to fill.

The object of the invention is to provide a water-tank of this character embodying improved means for exhausting and admitting air and indicating the level of the water therein.

With this and other minor objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of a water-tank embodying my invention and a sectional elevation of the well. Fig. 2 is a sectional elevation of the tank and well, and Fig. 3 is a detail cross-section through the gage and air-inlet tube.

Referring now more particularly to the drawings, wherein like reference characters designate corresponding parts throughout the several views, the numeral 1 represents the wall of a well or cistern or other suitable source of water-supply, and 2 an air-tight water-tank suitably supported above the well and in communication therewith through a vertical stand-pipe 3. This pipe is provided at its lower end with a perforated inlet 4 for the admission of water and at its upper end extends into the tank to near the top thereof.

Air is exhausted from the space between the water contained within the tank and the top of the tank through an exhaust-pipe 5, extending down the side of the tank and in open communication therewith at its upper end through the top of the tank. At its lower

end said pipe is connected to an exhaust-pump cylinder 6, the rod 7 of the piston whereof is connected to a toothed crank-disk 8, which receives motion from a train of gears 9, operated by a crank-handle 10 or other suitable operating means on the power-shaft thereof. By operating the pump-piston through the medium of this gearing it is obvious that the air contained within the tank will be exhausted therefrom and a partial vacuum created, which will be filled by the upward flow of water from the well 1.

11 designates a discharge-pipe for conveying water from the tank to any desired point for use, and 12 is a valve controlling the flow of water therethrough and having an operating-stem 13, which may be provided at its outer end with a handle for direct manipulation or with a suitable connection for the attachment thereto of an operating cord or wire leading from a distant point, as desired.

A combined gage and air-inlet tube or pipe 14 extends vertically on the exterior of the tank on the side diametrically opposite the air-exhaust pipe 5 and opens at its upper end into the tank and is provided at suitable points with indice-marks to indicate, in connection with a pointer 15, the amount of water contained within the tank. This pointer consists of a counterweight movable vertically within the tube and connected with a float 17 on the interior of the tank by a cord 16, passed over properly-located pulleys 18 and 19. As the float rises and falls with the water the pointer correspondingly moves within the tube 14 and, registering with the indice-marks on said tube, indicates the amount of water contained within the tank. The pointer is provided with suitable recesses or openings 20 for the passage of air therearound and through the tube, and the latter has at its lower end a cock 21, which may be opened to supply air to the tank to take the place of the water withdrawn therefrom. The tube 14 may be made of glass or any other suitable transparent material. An upwardly-closing float-valve 23 is provided in the upper end of the exhaust-pipe 5 to prevent the water from flowing into said pipe when the tank is full, and thereby avoid freezing of the pipe in cold weather.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

In a water-elevating apparatus, the combination of a source of water-supply, a tank, a
5 pipe extending upwardly from the water-supply and into the tank to near the top of the tank, an exhaust-pump, a direct pipe connection between the tank and pump for exhausting air from said tank, a valve for closing
10 said pipe connection when the water in the tank reaches its maximum height, a combined air-inlet and gage tube on the exterior of the tank, said tube being in communication at its upper end with the tank and provided with an air-cock at its lower end, a

counterweight-pointer movable in said tube, passages being formed between the pointer and tube for the inlet of air, a float on the interior of the tank, and a flexible connection movable over suitable pulleys and suspending said float and pointer, substantially as described. 20

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

AQUILA DESCHAMBAULT.

Witnesses:

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