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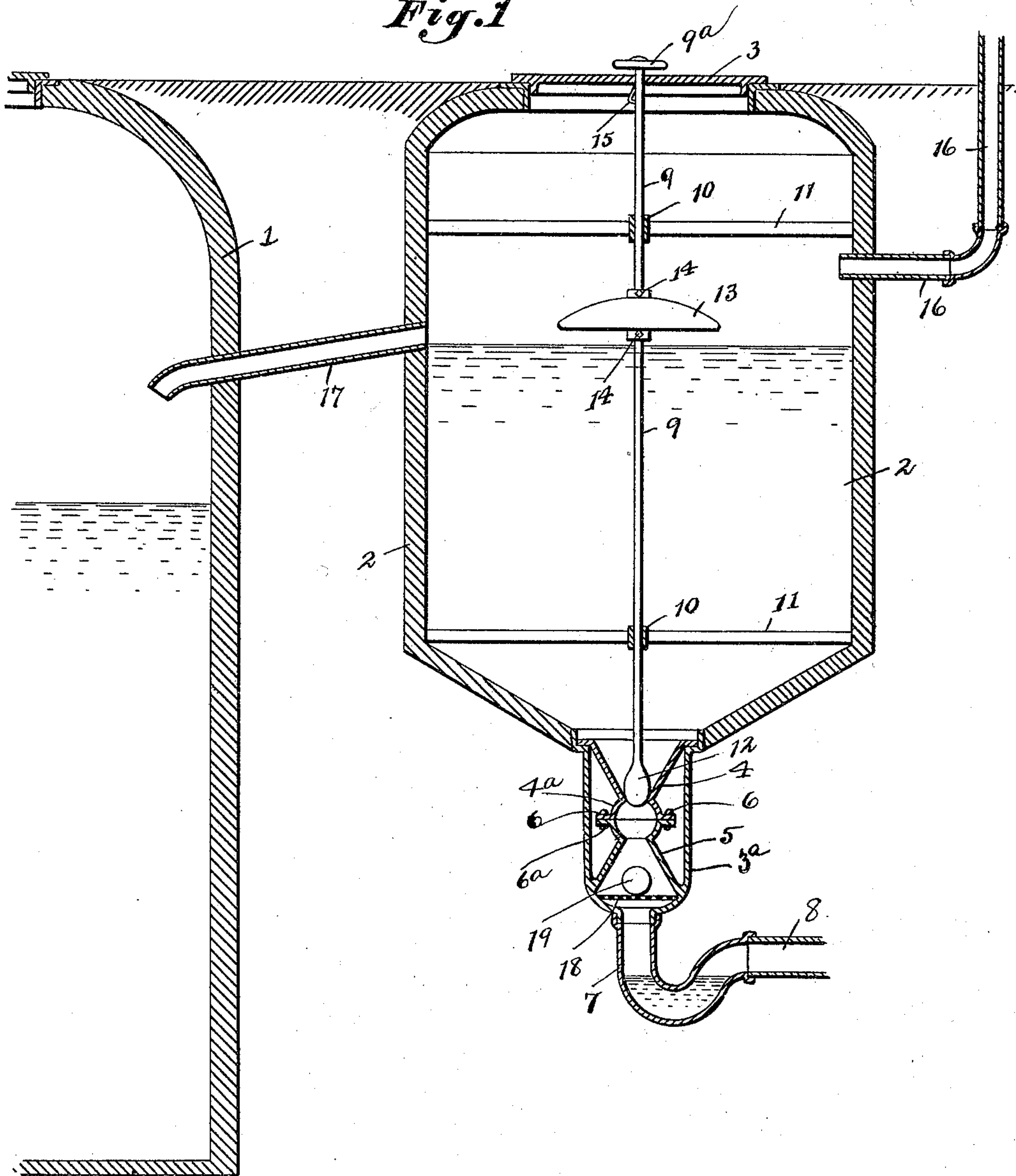
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OVERFLOW RESERVOIR FOR CISTERNS.

(Application filed Oct. 5, 1899.)

(No Model.)

Fig. 1



WITNESSES:

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OVERFLOW-RESERVOIR FOR CISTERNS.

SPECIFICATION forming part of Letters Patent No. 644,856, dated March 6, 1900.

Application filed October 5, 1899; Serial No. 732,615. (No model.)

To all whom it may concern:

Be it known that I, JOHN GAA, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have
5 invented a certain new and useful Improvement in Overflow-Reservoirs for Cisterns, of which the following is a specification.

My invention relates to the improvement of overflow devices for cisterns; and the objects
10 of my invention are to provide, in conjunction with a rain-water cistern, an overflow reservoir or compartment of superior construction and arrangement of parts, to provide improved means in connection therewith where-
15 by the water from house-pipes will be automatically directed into a sewer-outlet when the water in the cistern rises to a predetermined height, to provide improved means for preventing the backing of sewer-water into
20 the rain-water from the sewer-outlet, and to produce other improvements in details of construction, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying
25 drawing, in which the figure represents a central vertical section of my improvement, showing in conjunction therewith a portion of a cistern.

Similar numerals refer to similar parts.

30 1 represents an ordinary rain-water cistern. Built in the earth adjacent to the cistern 1 is an overflow tank or reservoir 2, the upper end opening of the latter being adapted to be closed by a cistern cover-plate 3, of the usual
35 or any desirable form. As indicated in the drawing, the bottom or lower portion of the reservoir 2 converges to meet the mouth or upper end portion of a downwardly-extending tubular casing 3^a, within which I provide
40 a valve-casing, consisting of upper and lower valve-casing sections 4 and 5. The upper casing-section 4 consists, as shown, of a flaring mouth portion, the upper outwardly-flanged end of which bears in the bell or internal
45 shoulder of the upper end of the casing 3^a. The lower or inner portion of the upper section 4 is provided with a substantially bowl-shaped termination 4^a, which is formed with laterally-projecting lugs 6. The lower valve-
50 casing section 5, although inverted with reference to the position of the upper section 4, is of corresponding form, and the laterally-

projecting lugs 6^a thereof are engaged with the corresponding lugs 6 of the upper section through the medium of bolts or otherwise. 55
The rounded openings at the junctions of the flaring outer and bowl-shaped inner portions of the valve-casing sections result in the formation of upper and lower valve-seats, which are adapted to be closed in the manner here- 60
inafter described. The lower reduced end of the outer casing 3 is secured, as shown, in the bell or enlarged mouth of the upper end of a sewer-trap section 7, the latter being connected through the medium of a sewer-pipe 8 with 65
a convenient sewer.

9 represents a vertically-arranged valve-rod which extends downward through a central opening in the reservoir cover-plate 3 and thence through suitable guides or bearings 10, 70
which are arranged on cross-pieces 11. The valve-rod 9 has formed with its lower end a suitably-shaped valve 12, which is designed, as indicated in the drawing, to enter and close the valve-seat of the casing-section 4. At a 75
desirable height on the rod 9 I secure a float-body 13, the latter preferably being made adjustable on said rod 9 through the medium of set-screws 14. In the upper portion of the rod 9, adjacent to the cover-plate 3, I provide 80
an angular depressible spring 15, which is preferably of the character ordinarily employed in umbrella-rods for the purpose of retaining the latter in hoisted positions. On the upper end of the rod 9 and on the outer 85
side of the cover-plate 3 said rod is provided with a suitable head or handpiece 9^a.

16 represents a rain-water-inlet pipe which may lead from the rain-water house-pipes or other suitable sources, said inlet-pipe prefer- 90
ably leading into the upper portion of the reservoir 2, as shown, at a point above the discharge-pipe 17, which leads from said reservoir to the cistern 1. Within the lower section 5 of the valve-casing and upon a disk 95
of wire-netting or similar material 18 I support a ball-valve 19.

It is obvious that when the valve 12 is in its lower or closed position communication with the sewer-outlet will be entirely cut off 100
and the water which enters the reservoir 2 through the medium of the inlet-pipe 16 will rise to the mouth of the pipe 17 and fall through the latter into the cistern. However,

when the water reaches a sufficient height within the reservoir to lift the float 13 and its valve-rod 9 until the spring-catch 15 has passed through the central opening in the top plate 3 the valve 12 will have been raised to permit the water which is discharged into the reservoir to escape through the sewer-outlet 7. It will also be observed that during the passage of the rod 9 through the central opening of the top plate 3 the spring 15 will be compressed, but that on clearing said opening said spring will assume its normal position, and thereby engage the top of the cover-plate 3 and serve to retain the valve 12 in its open position until the rod 9 is depressed by hand. In case the valve 12 is open and there is through a stoppage of the sewer or otherwise a tendency of the sewer-water to back or rise into the reservoir and mingle with the rain-water therein it will be observed that the ball-valve 19 will be lifted into its seat in the upper portion of the valve-casing section 5 and the sewer-water thus prevented from entering said reservoir.

From the construction shown and described it will be seen that simple and reliable means are provided for automatically cutting off the flow of water from a cistern and that means are also provided in combination therewith for preventing the mingling of the sewer-water with the contents of the reservoir or cistern. It will also readily be seen that such

sediment or other foreign matter which may be of sufficient specific gravity to sink in water will be deposited in the lower portion of the reservoir and prevented from entering the cistern. It will be observed that by the employment of my improved overflow device the cistern-water will be entirely freed from contamination by becoming mingled with the sewage or sewer-gas and that such cistern-water may be readily adapted for drinking purposes.

The construction herein shown is simple and effective and may be produced at a low cost of manufacture.

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

In an overflow-reservoir for cisterns, the combination with a cistern, of a reservoir arranged adjacent thereto, a valve-casing in the lower portion thereof and a sewer-pipe communicating therewith, of a vertically-movable valve-rod 9 having a valve adapted to close communication with said sewer-pipe, a float projection on said valve-rod, a rain-water-supply pipe 16 leading to said reservoir and a pipe 17 leading therefrom to said cistern, substantially as specified.

JOHN GAA.

In presence of—

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