No. 632,468. Patented Sept. 5, 1899.

H. F. MUELLER.

CISTERN CLEANER.

(Application filed June 10, 1899.)

(No Model.)

Fig. 1.

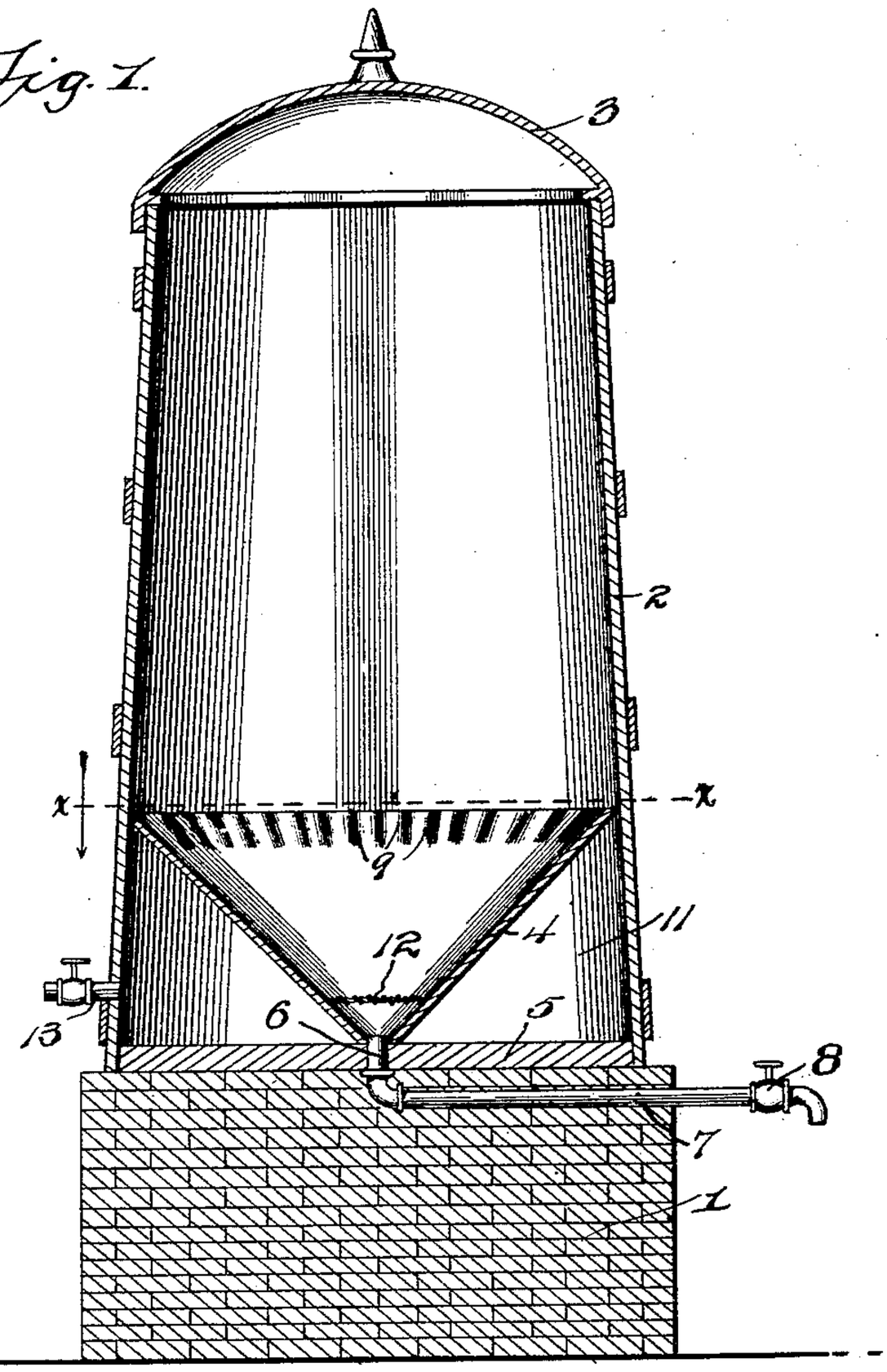
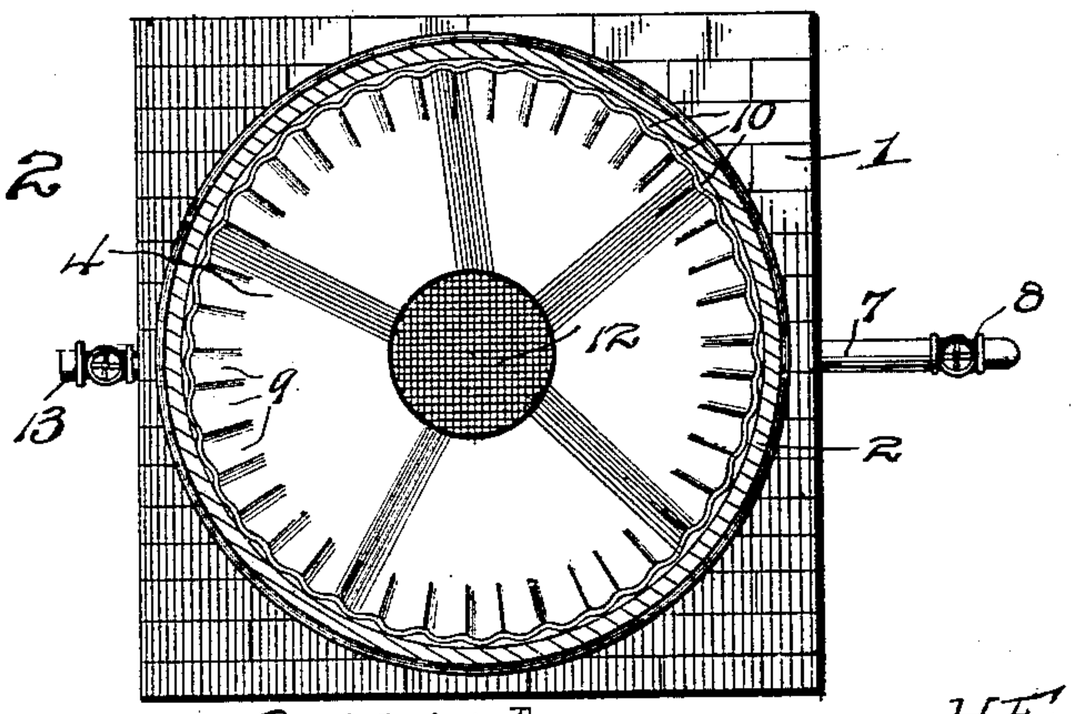


Fig. 2.



Witnesses
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By his Attorneys,
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UNITED STATES PATENT OFFICE.

HENRY F. MUELLER, OF NEW ORLEANS, LOUISIANA.

CISTERN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 632,468, dated September 5, 1899.

Application filed June 10, 1899. Serial No. 720,102. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. MUELLER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Cistern-Cleaner, of which the following is a specification.

This invention relates to cistern-cleaners of that class embodying a sediment catch-basin or receptacle located within the cistern, and has for its object to provide an improved catch-basin or receptacle which will collect and retain all the sediment or foreign matter which may gain access to the interior of the cistern. The catch-basin is also arranged so the clean water may pass below the basin and remain out of contact with the sediment within the basin, and is furthermore provided with means for drawing off the sediment without disturbing or impairing the clean water.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the size, proportion, form, and the minor details of construction may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a sectional elevation of a cistern equipped with the improved cleaner. Fig. 2 is a transverse sectional view taken on the line *x x* of Fig. 1.

Corresponding parts in both figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 designates a suitable foundation, upon which is supported a tank or reservoir 2, having its upper end open, so as to collect the rain-water, and provided with a removable cover 3 to protect the contents of the cistern after the rain has ceased to fall.

Located within the cistern and at the lower end thereof is a conical or funnel-shaped catch-basin or receptacle 4, having the apex of the cone resting upon the bottom 5 of the cistern and the mouth of the basin extending upward and fitting snugly the interior of the tank or reservoir. Extending through the comparatively thick bottom of the tank is a discharge-pipe 6, which communicates with interior of the catch-basin 4 and is provided with a branch pipe 7, extending laterally through the foundation 1 and provided with a valve 8, located exteriorly of the foundation.

The upper peripheral edge of the catch-basin 4 is fluted or corrugated, as at 9, said flutes or corrugations extending entirely around the edge of the basin. By reference to Fig. 2 it will be seen that the outwardly-bent portions of the respective corrugations fit snugly against the inner walls of the tank, so that an annular series of separate and distinct passages 10 are provided entirely around the mouth of the basin. By reason of these annular passages the water which may drain downward upon the inner walls of the tank may pass through said passages and discharge into the annular space 11, formed between the outer walls of the basin 4 and the inner walls of the tank. These passages 10 are comparatively small, so that the dirt or other matter which may fall into the tank will not readily pass through said passages, but will be directed into the catch-basin 4 by reason of its downwardly-convergent sides. Also as the level of the water within the catch-basin rises above the upper edge thereof the water may overflow through the passages 10 and downward to the bottom of the tank. Thus it will be seen that the annular space about the catch-basin is utilized to contain the clean water, thereby maintaining the same out of contact with the sediment and foreign matter within the catch-basin. It is preferable to have the diameter of the tank increase downwardly, so that dirt, &c., may more readily fall into the catch-basin and not collect upon the inner side of the tank. To prevent the discharge-pipe 6 from becoming clogged or stopped up by stones or other comparatively large and hard articles, a suitable strainer 12 is provided within the catch-basin and is supported upon the inner walls thereof.

From the foregoing description it will be understood that the cleanest water is maintained in the bottom of the tank and below the upper edge of the catch-basin, and therefore the clean water is adapted to be drawn off through a discharge-pipe 13, extending

through one side of the tank and below the upper edge of the catch-basin.

This relative arrangement and construction of the catch-basin 4, the sediment-discharge pipe 6, and the clean-water pipe 13 permits of the clean water being drawn off without disturbing the sediment and mixing the latter with the water and also permits of the sediment being drawn off from its lowest point without agitating and causing the clean water to become muddy. Furthermore, the space about the catch-basin, which is usually of no use, is herein employed to contain the clean water, and the latter is drawn off below the surface thereof, and thereby insuring a perfectly clean supply of water; also, the corrugations at the upper edge of the catch-basin permit of the clean water overflowing to the bottom of the tank and prevents the dirt from passing outside of the catch-basin, and thereby effectually protects the clean water from the dirt which may fall into the cistern.

What I claim is—

1. The combination with a cistern tank or reservoir, of a sediment catch-basin located within the tank or reservoir, and providing an annular clean-water space located below the catch-basin, and entirely cut off from the interior thereof, and passages located exteriorly of the catch-basin, and communicating from above the latter to the clean-water space, a sediment-discharge pipe communicating with the bottom of the catch-basin, and a water-discharge pipe communicating with the clean-water space, substantially as and for the purpose set forth.

2. The combination with a cistern tank or reservoir, of a sediment catch-basin fitted snugly within the tank or reservoir, providing a space below the basin, and having its upper edge fluted or corrugated, said flutes or corrugations providing passages communicating with the space below the catch-basin, a sediment-discharge pipe communicating with the bottom of the catch-basin, and a water-discharge pipe located below the upper edge of the catch-basin, substantially as and for the purpose set forth.

3. The combination with a cistern tank or reservoir, of a conical or funnel-shaped sediment catch-basin, having its apex resting upon the bottom of the tank or reservoir, and its upper edge provided with flutes or corrugations and fitting snugly the inner walls of the tank or reservoir, said flutes or corrugations providing exterior passages communicating with the space below the upper edge of the catch-basin, a sediment-discharge pipe extending through the bottom of the tank or reservoir and communicating with the interior of the catch-basin, through the apex thereof, and a water-discharge pipe extending through one side of the tank or reservoir and located below the upper edge of the catch-basin, substantially as shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY F. MUELLER.

Witnesses:
F. E. BISHOP,
THOS. MILLER.