No. 885,209. PATENTED APR. 21, 1908.

H. H. WISE.

CISTERN.

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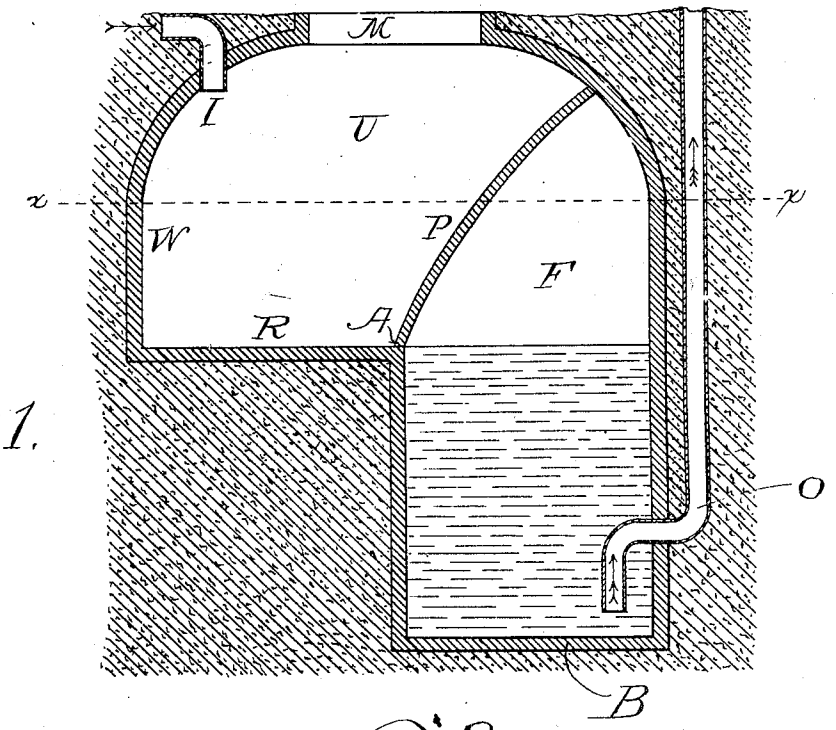
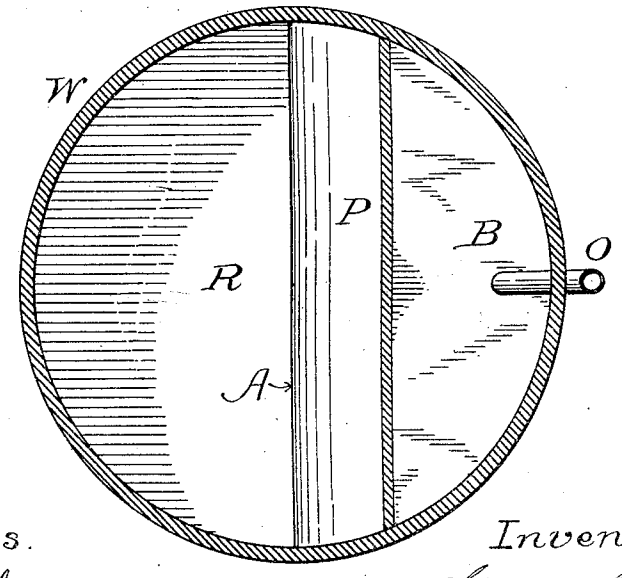


Fig. 1.

Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

HIRAM H. WISE, OF DECATUR, ILLINOIS.

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No. 885,209. Specification of Letters Patent. Patented April 21, 1908.

Application filed January 9, 1908. Serial No. 410,056.

To all whom it may concern:

Be it known that I, HIRAM H. WISE, a citizen of the United States, and resident of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Cisterns; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to masonry, and more especially to that class of devices thereunder known as cisterns; and the object of the same is to so construct a cistern that it may be cleaned without first completely emptying it of water.

To this end the invention consists broadly in forming the cistern with part of its bottom raised, and specifically in supplying the inlet to the raised portion and taking the outlet from the depressed portion of the bottom, and preferably also separating these two portions of the cistern by a filter wall—all as hereinafter more fully described and claimed and as shown in the accompanying drawings wherein—

Figure 1 is a central vertical section of this improved cistern in its preferred construction; Fig. 2 is section on the line *x*—*x* of Fig. 1.

Referring to the drawings by letter, W designates the wall of this cistern having a mouth M, B the bottom thereof, and R a raised portion of said bottom which, as seen, is on a higher level than the true bottom and by preference is substantially flat or level so the operator can stand thereon, and occupies about half of the diameter of the cistern although this proportion is not necessary. The letter I designates the inlet, and O is the outlet, the latter taken from a point deep in the depressed portion of the bottom. With a cistern as thus constructed, the inlet water flowing in at I strikes the raised bottom R and flows off the corner of the same into the depressed portion of the bottom, from which it is drawn through the outlet O. It will be obvious that what sediment of heavier particles flows into the cistern will rest and accumulate upon the raised bottom, while possibly the lighter particles or impurities will run over the angle and fall into the storage water and be drawn out the outlet. Nevertheless, in order to clean this cistern it is only necessary to draw off water to about the level indicated in Fig. 1, after which the operator can get into the cistern bodily and standing on the raised portion R can clean off of it the larger part of the accumulations of dirt which rest thereon. In the preferred construction of this cistern, however, I build a perforated wall P from the angle A between the raised and true bottom obliquely upward about as shown in Fig. 1, thereby dividing the cistern into two spaces U and F. Within the former will accumulate unfiltered water, and, passing through the perforated or filter wall P, within the space F will accumulate the filtered water which is finally withdrawn through the outlet O. It is obvious that if more water is admitted through the inlet I the water level will rise higher than indicated in Fig. 1 and will stand upon the raised portion R as well as above the depressed portion B of the bottom, whereas if the water falls lower than indicated in Fig. 1 it will stand wholly within the deeper portion of the cistern.

As thus constructed the operation of cleaning the cistern is as above, excepting that the operator standing on the raised portion R now cleans out all the sediment that may have accumulated, as the wall P has prevented any of it from passing into the space F. Moreover, the exact location of the filter wall P renders it possible for him when standing upon the raised portion R to clean the upper side of the filter wall so as to remove therefrom such particles as have adhered thereto.

It is quite within the scope of this invention that the filter wall P shall be removable, or that it may be made of other material than porous brick or the like although I prefer the latter. I prefer also to contract the mouth M of the cistern so that the upper end of this wall P shall be in reach of an operator standing upon the raised portion R. Otherwise the proportions and construction of the parts of this cistern are immaterial, so long as the main object is carried out.

What is claimed as new is:

1. A cistern having a portion of its bottom raised, combined with an inlet directed onto said portion, and an outlet taken from the depressed portion near its bottom, and a nearly upright porous filter wall between said portions.

2. A cistern having its bottom raised at one side and substantially flat, its wall and mouth being within reach of an operator standing on said raised bottom, and a filter wall extending from the corner of said raised,

portion to the wall of the cistern; combined with inlet and outlet communicating with the spaces at opposite sides of said filter wall.

3. The combination with a cistern having a surrounding wall and mouth, a true depressed bottom, and a raised and substantially flat bottom, the two portions of the bottom occupying about equal parts of the area of the cistern; of a porous filter wall extending from the corner between said portions of the bottom obliquely upward to the wall of the cistern and dividing its interior into spaces for unfiltered and filtered water, an inlet into the space for the unfiltered water, and an outlet from the opposite space.

4. The combination with a cistern having a surrounding wall and a contracted mouth, a true depressed bottom, and a raised and substantially flat bottom, the two portions of the bottom occupying about equal parts of the area of the cistern; of a filter wall extending from the raised portion of the bottom obliquely to the wall of the cistern near its mouth, an inlet directed downward onto the raised portion, and an outlet taken from a point near the bottom of the depressed portion.

In testimony whereof I have hereunto subscribed my signature, this, the 6th day of January, 1908.

HIRAM H. WISE.

Witnesses:
HIRAM JOHNSON,
Y. Z. GREENE.