To all whom it may concern:

Be it known that I, CALEB S. JOHNSON, of Beaufort, in the county of Beaufort and State of South Carolina, have invented a new and useful Improvement in Cisterns, of which the following is a full, clear, and exact description.

My invention relates to an improvement in cisterns; and has for its object so construct the same that it may be cleansed of all sediment at each rain-fall, or whenever filled; and a further object of the invention is to provide a means whereby the water at the bottom of the cistern will flow off as the fresh water enters at the top.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, which represents a central vertical section through the cistern.

In carrying out the invention, the body 10 of the cistern is preferably made round and somewhat conical, the lower end, which is smaller, being buried in the ground, and the upper or larger end, which is provided with a suitable cover 11, is made to extend any suitable or desired distance above the surface of the ground. In the cover of the body a tube 12 is inserted, which tube extends downward within the body, and is preferably provided with any approved form of strainer 13. This strainer may be located at any point in the length of the tube that in practice may be found most advantageous. Through one side of the body near its junction with the cover 11, a tube 14 is inwardly projected, which tube is curved, and to the lower end of the tube near the bottom of the body a block 15 is secured, which block is provided with a vertical bore 16, registering with the opening in the tube. A conical deflector 17 is also attached to the tube 14 near its lower end, the bottom or flaring edge of said deflector being secured in any suitable or approved manner to the periphery of the block 15. The block 15 is preferably shaped upon its under face to correspond with the approaching surface of the body, and the said block is supported upon the bottom of the body by means of suitable legs. The block 15 is of less diameter than the diameter of the lower portion of the body, and is held a slight distance above the bottom, whereby a space 18 is obtained for the reception of sediment. The outer end of the curved tube 14 is threaded and provided with a screw-cap 19. The tube 12 is an inlet-tube and the tube 14 is an outlet or overflow tube. The function of the conical deflector is to cause any sediment that may be in the water contained in the cistern to pass downward virtually in contact with the sides thereof as it falls to the bottom.

In operation, if the cistern is, for instance, half filled with water and it is desired to clean the same, the cistern is completely filled and the screw-cap 19 removed from the waste or overflow tube 14, whereupon the weight or pressure of the water in the cistern will force the sediment from the bottom of the cistern upward through the tube 14. When the screw-cap 19 is removed and water is introduced into the cistern through the supply-pipe 13, the water at the bottom of the cistern will pass off through the overflow-pipe 14 and in a short time the cistern will be entirely filled with fresh water. This operation of replenishing the cistern and of cleansing it may be repeated as often as may be desired. It will be observed that by placing a strainer in the supply-pipe the force of the water will be broken before it reaches the interior of the cistern, whereby the upper surface of the water in said cistern will not be agitated to such an extent as to disturb the sediment in the bottom.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a cistern, an overflow-pipe having a conical inlet end provided with a lower convex face, substantially as set forth.

2. The combination, with a cistern tapering downwardly and inwardly from its upper to its lower end, of an overflow-pipe having a conical deflector on its lower end overhanging the bottom of the cistern and of nearly as great diameter, a narrow space being formed between the lower edge of the deflector and contracted lower end of the cistern, whereby
the sediment will be drawn from the entire bottom of the cistern, substantially as set forth.

3. The combination, with the cistern having a contracted lower end and a concave bottom, of an outlet-pipe having a conical deflector and a convex lower face, a narrow space being formed between the lower marginal edge of the deflector and the lower end of the cylinder and between said convex and concave surfaces, substantially as set forth.

4. As an improved article of manufacture, a cistern provided with a cover, a supply-pipe projected through the cover, an overflow-pipe projected through one side of the cistern, a conical deflector secured to the overflow-pipe near its lower end, and a block attached to the lower extremity of said overflow-pipe, having a bore registering with the bore of the tube, substantially as and for the purpose specified.

5. The combination, with a cistern, of a supply-pipe projected through the upper portion of the same, an overflow-pipe projected through the side and downward near the bottom of the cistern, the said overflow-pipe being provided with a detachable cap at its outer end, a conical deflector secured to the said overflow-pipe at or near its lower end, and a block attached to the lower extremity of the overflow-pipe, provided with a vertical bore registering with the bore of the pipe, all combined for operation substantially as and for the purpose specified.

CAZEB S. JOHNSON.

Witnesses:

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