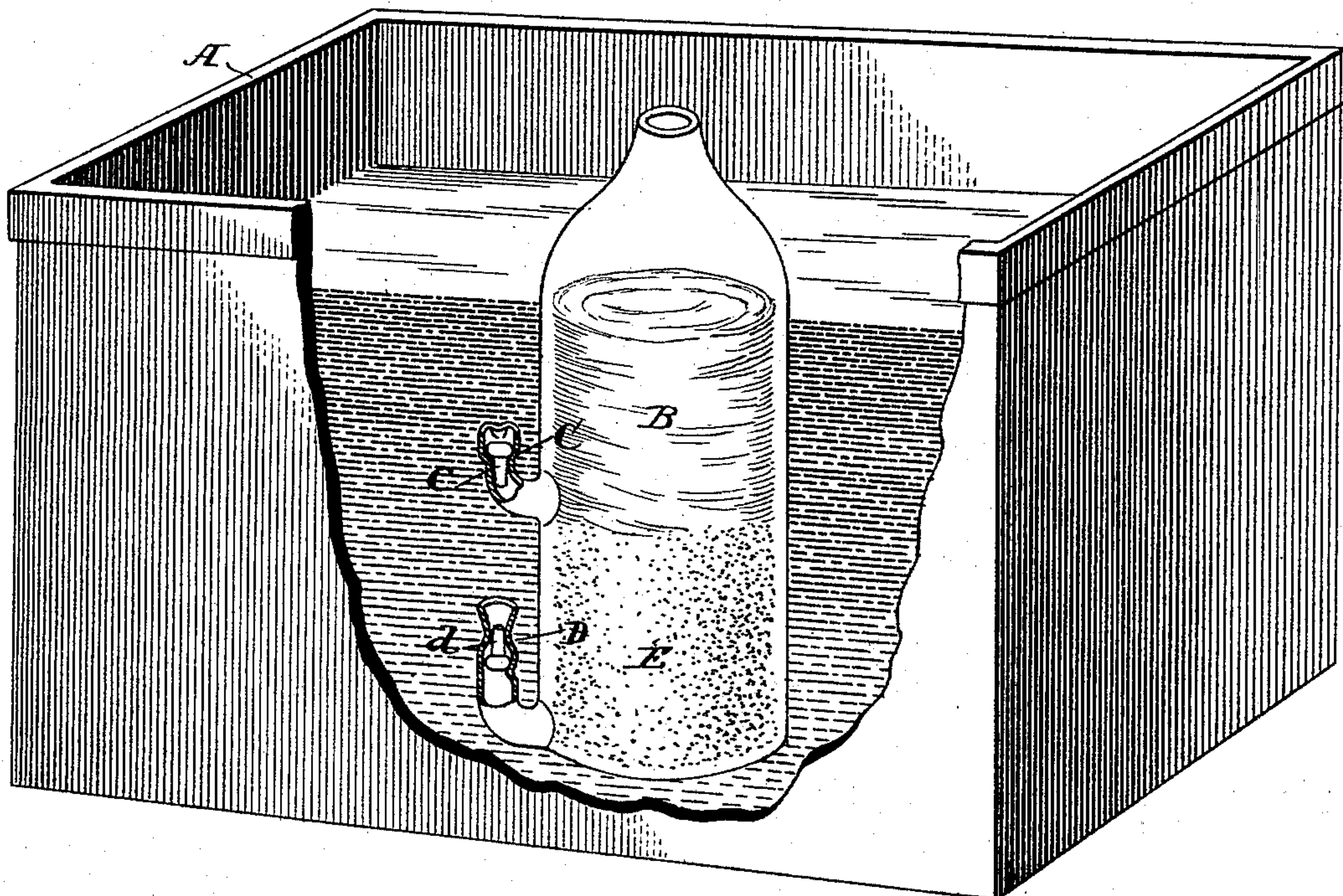


(No Model.)

S. G. PLUMB.
DISINFECTING APPARATUS.

No. 495,563.

Patented Apr. 18, 1893.



Witnesses
Geo. G. Hinkel
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UNITED STATES PATENT OFFICE.

SANFORD G. PLUMB, OF NEW YORK, N. Y., ASSIGNOR TO THE ODORLESS DEODORIZER COMPANY, OF NEW YORK.

DISINFECTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 495,563, dated April 18, 1893.

Application filed June 13, 1892. Serial No. 436,540. (No model.)

To all whom it may concern:

Be it known that I, SANFORD G. PLUMB, a citizen of the United States, and a resident of the city, county, and State of New York, have
5 invented certain new and useful Improvements in Disinfecting Apparatus, of which the following is a specification.

My invention relates to disinfecting apparatus and has for its object to provide a simple, cheap and effective device whereby a certain amount of disinfecting matter may be automatically supplied to a closet tank or cistern or other similar device, the apparatus being capable of being placed in the usual
15 tank or cistern and being removed therefrom and to be used without any change or alteration in the arrangement of the ordinarily constructed tank; and to these ends my invention consists in the disinfecting apparatus,
20 constructed, arranged and operating substantially as hereinafter set forth.

Referring to the accompanying drawings, I have illustrated a tank in the conventional form, a part being broken away to show the
25 construction of my disinfecting apparatus.

The tank A, may be of any desired and proper form and be provided with the usual valves for the exit of the water and the pipes for supplying it, none of which are shown as
30 they form no part of my invention and their construction and operation are understood by those skilled in the art.

My disinfecting apparatus consists of what I have termed a siphon, jar, bottle or vessel
35 B, and this may be of any size or shape and of any material desired, it being preferably contracted toward the top as shown.

Connected to or formed in the sides of the jar or bottle are the nozzles C, D, the latter
40 of which is arranged near the bottom of the vessel, while the former is arranged preferably about half way up or near the middle thereof, although of course the precise height or arrangement will depend upon various considerations as to the relative diameter of the
45 vessel compared with its height and the amount of disinfecting material to be used. These nozzles are each provided with a valve which may be of any desired structure or
50 form, preferably an ordinary check valve. The valve c, attached to the nozzle C, is ar-

ranged to be normally closed from the outside and to be opened by pressure from the inside, while the valve d, is arranged to be normally closed from the inside and to be
55 opened by pressure from the outside of the vessel.

Inside the vessel between the nozzles is placed a suitable disinfectant E, which may be of any suitable material as permanganate
60 of potash, chloride of lime or any other well known disinfectant, although I preferably use my odorless disinfectant, but this of course forms no part of my present invention and any material which is suitable for the purpose
65 can be employed.

The vessel B, having been charged with the disinfectant can be placed directly in the tank in any suitable position and is ready for operation.
70

In using the device, supposing the tank to be empty and water to be admitted therein, as it rises in the tank above the nozzle D, the pressure of the water on the valve d, opens the valve and allows the water to pass into
75 the vessel B and percolate through the disinfectant therein, and as the tank becomes filled the pressure of the water in the tank on the valve c, of the nozzle C, will prevent it being opened, so that eventually the water will rise
80 in the vessel after passing through the disinfectant to substantially the level of the water in the tank and it will so remain until the water is delivered for flushing purposes. As the water flows from the tank and the level
85 falls below the level in the vessel B, the pressure of the impregnated water in the vessel will force open the valve c, in the nozzle C, and allow the impregnated water to flow into the tank and thence through the pipes and
90 connections therewith, which will be thoroughly disinfected thereby. It will be observed that under these conditions the valve d, in the nozzle D, is closed so that the disinfectant E, cannot flow out through said nozzle and it remains in the vessel, ready to receive another charge of water to be impregnated when the tank is again flushed. These operations will be gone through with until the disinfectant in the vessel loses its disinfecting properties when the vessel can be
100 removed and recharged and it will be seen

that this can readily be done and a new vessel properly charged substituted for the exhausted one which can be removed to a convenient place for charging, or it can be removed from the tank and charged and immediately replaced, and it will also be seen that no change or modification in the tank is necessary.

While I have thus described and illustrated the preferred embodiment of my invention and its mode of operation, it will be understood that the details of construction and operation may be varied without departing from the spirit thereof and I do not therefore limit myself to the precise construction or arrangement shown.

What I claim is—

The combination with a tank, of a disinfecting vessel mounted in the tank, and having

two openings in its side at different distances from its base and below the normal level of the water in the tank, one of the openings being provided with a valve opening inside the vessel, and the other with a valve opening outside, and arranged to contain disinfecting material between the valves whereby the water enters one valve, percolates through the material and is held in the receptacle and when the tank is flushed, it will flow out of the receptacle into the tank, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SANFORD G. PLUMB.

Witnesses:

F. BELL-FENWICK,

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