

(No Model.)

M. B. MANWARING.
DISINFECTING DEVICE.

No. 429,384.

Patented June 3, 1890.

Fig.1.

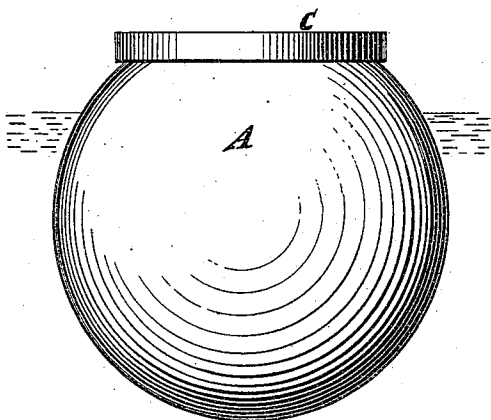


Fig.2.

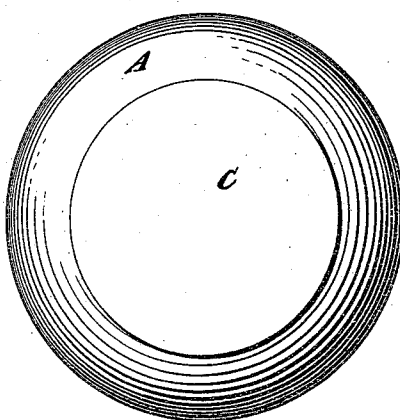


Fig.4

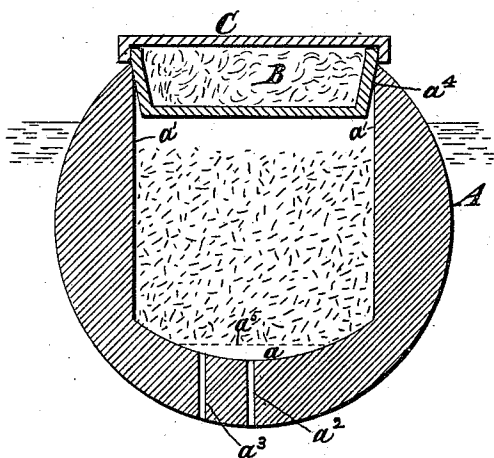
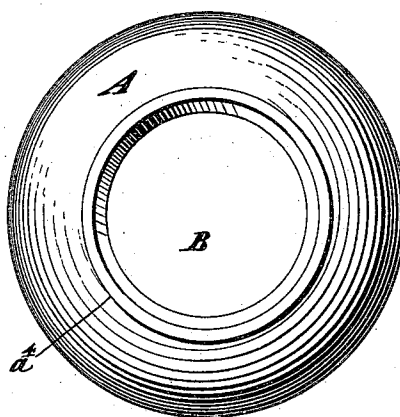


Fig.3.



WITNESSES.

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MORRIS B. MANWARING, OF BAYONNE, NEW JERSEY.

DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 429,384, dated June 3, 1890.

Application filed May 29, 1889. Serial No. 312,525. (No model.)

To all whom it may concern:

Be it known that I, MORRIS B. MANWARING, of Bayonne, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Disinfecting Devices, of which the following is a specification.

The object of my invention is to provide a simple and effective device whereby disinfecting and antiseptic materials may be disseminated into a reservoir of water. Another object of the improvement is to provide a device from which such materials may be liberated in the form of a gas.

I will describe a device embodying my improvement, and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is a side view of a device embodying my improvement. Fig. 2 is a top view thereof. Fig. 3 is a top view with a lid removed. Fig. 4 is a central vertical section thereof.

Similar letters of reference designate corresponding parts in all the figures.

A designates a vessel adapted to contain disinfecting and antiseptic materials and to float in a reservoir of water. The bottom is made sufficiently heavy as compared with the top or upper portion for gravity to insure it against being inverted. The interior surface a , Fig. 4, of the bottom is shown as slanting toward the center. In the present instance it is made concave.

I prefer to make the interior of the vessel cylindrical-above the bottom, as shown at a' , Fig. 4, and the exterior of spherical, spheroidal, or analogous form. This form gives the device embodying my improvement an attractive appearance, and also insures its floating in an upright position.

The device may advantageously be made of wood, although I do not wish to confine myself to any special material. It may be made in one piece or of any desired number of pieces fastened together. Through the bottom extend two holes $a^2 a^3$. The one a^2 extends from the lower part of the interior bottom surface a through to the exterior of the bottom portion, and the other a^3 extends from a higher part of the bottom surface a through to the exterior of the bottom portion. An advantageous size for these holes will be

from about one thirty-second to one-sixteenth of an inch in diameter, according to the material contained in the vessel.

I have shown the vessel A as having a circular opening a^4 in the top. This may be fitted with any suitable cover. I have shown it as fitted with a box-like cover B tapering downward externally, so that while its lower portion may pass through the opening its upper portion will fit within the opening and be supported in the same.

The cover B may have a lid C. I have shown the upper edge of the box-like cover extending above the opening a^4 in the vessel A, and the lid C as provided with a rim or flange, which extends down around the exterior of the upper portion of the said cover.

The appearance of the vessel, its cover B, and the lid C, when made of wood may be enhanced by dipping the same in any coloring material—as, for instance, a solution of red aniline dye and draining and drying the same. Then the parts will preferably have applied to them a coating of melted paraffine or other suitable material. This coating is to resist the action of water entering the vessel, and also that of the material contained in the vessel.

The interior of the vessel is nearly filled with the disinfecting or antiseptic material, the latter being in a disintegrated form and of such character as to be soluble in water. I prefer to use a material which will form a highly-colored solution, because then the strength of the solution and the efficiency of the device may be the more readily appreciated.

The joint between the vessel A and the cover B is intended to be water-tight. Consequently water can pass from the reservoir in which the vessel A is floated only through the holes $a^2 a^3$ in the bottom. It will enter and form a solution of the disinfecting or antiseptic material. This solution will be heavier than the water itself; hence a circulation will arise. This circulation will occur owing to the fact that one of the holes a^3 enters the vessel at a point higher than the other. The water will ascend through the hole a^3 , and the solution will descend through the hole a^2 .

The circulation from the reservoir through

the vessel and back again will be very slow, but is intended to be sufficient to effect the dissemination of the disinfecting or antiseptic material throughout the water in the reservoir. The solution thus formed will descend in the reservoir and any water flowing into the top of the reservoir to maintain the supply there will become impregnated with the material in the vessel A. If a colored solution results from the use of the device, it will be easy for any one to ascertain when the device needs replenishing. The fact that the device will rise as its contents are consumed will, however, afford a sufficient indication that it needs replenishing. The water will only rise a short distance in the vessel A—as, for instance, to the dotted line a^5 . As the material in that space enters into solution and passes off material descends from above to supply its place. This water will not rise in the vessel A as high when the vessel is sealed as it would otherwise.

The box-like cover may contain any fibrous absorbent—as, for instance, cotton or sponge—saturated with a suitably-volatile disinfecting or antiseptic material.

The lid C is not needed while the device is in use.

Permanganate of potassium may be em-

ployed for a coloring-disinfectant in the vessel A. The box-like cover may advantageously be supplied with oil of thyme or a mixture of oil of thyme and oils of rosemary and lavender.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A device for disinfecting fluids, which consists of a hollow spheroidal structure of wood or other material and having a less specific gravity than the fluid in which it is to be used, provided with a cap and with orifices for ingress and egress of fluid and adapted to contain a soluble disinfectant, substantially as specified.

2. A device for disinfecting fluids, which consists of a hollow spheroidal structure of wood or other material and having a less specific gravity than the fluid in which it is to be used, provided with a box-like cover adapted to receive an absorbent, and having orifices for ingress and egress of fluid and adapted to contain a soluble disinfectant, substantially as specified.

MORRIS B. MANWARING.

Witnesses:

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C. J. SUND.