J. J. McDONNELL.

CONTAINER FOR DEODORIZING FLUIDS.

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1,178,167.

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Fig. 1.

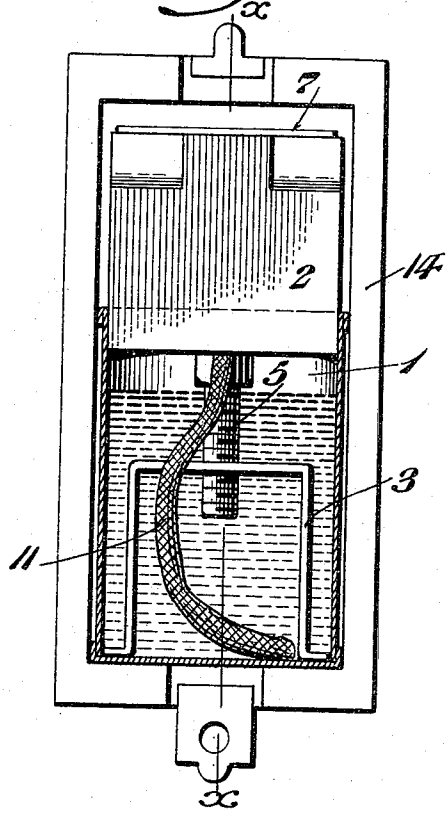


Fig. 2.

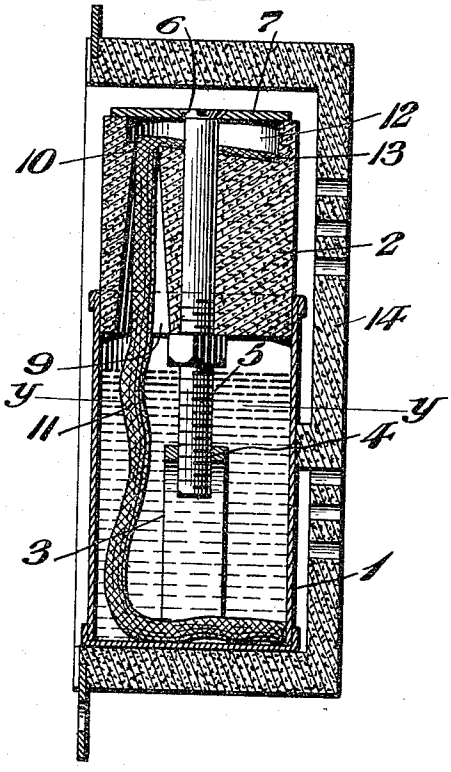


Fig. 3.

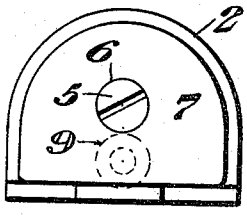
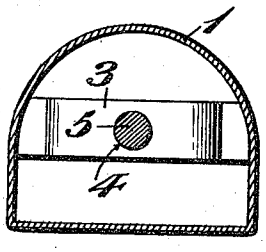


Fig. 4.



WITNESSES

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CONTAINER FOR DEODORIZING FLUIDS.

1,178,167. Specification of Letters Patent. Patented Apr. 4, 1916.

Continuation of application Serial No. 6,894, filed February 8, 1915. This application filed March 8, 1915. Serial No. 13,019.

To all whom it may concern:

Be it known that I, JAMES J. McDONNELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Container for Deodorizing Fluids, of which the following is a specification.

My invention relates to a new and useful receptacle for the dissemination of deodorizing, disinfecting and other fluids, and consists in providing a constant supply of the fluid and of means for regulating the amount of evaporation.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings, forms thereof which are at present prefered by me, since the same will give in practice satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangements and organizations of these instrumentalities as herein shown and described.

Figure 1 is a partial rear elevation, partial sectional view of a device embodying my invention. Fig. 2 is a sectional view on line *x*—*x* Fig. 1. Fig. 3 is a top plan view of a portion of the device. Fig. 4 is a sectional view on the line *y*—*y* Fig. 2.

Similar numerals of reference indicate corresponding parts in the figures.

I have found in practice that it is of an advantage, in order to provide for proper dissemination of a deodorizing, disinfecting, or other fluid, that a constant supply of the fluid be provided, as well as a regulation of the evaporation thereof, so that the device may be adapted for different sized closures or spaces; that is, the evaporation is regulated, so that a constant supply of the fluid will be provided.

Referring to the drawings: 1 designates a receptacle or container of any suitable size and shape, which is adapted to receive the supply of fluid to be diffused or disseminated.

2 designates a body of absorbent material, such as plaster of Paris, which is adapted to be inserted in the open end of the container, and in the construction shown is adapted for vertical movement therein.

3 designates a support removably seated in the receptacle, which may be of any suitable form and which, as here shown, is provided with a threaded opening 4.

5 designates a rod, which is adapted for adjustable engagement with the support 3, and which rod is here shown as threaded and engaging the threaded opening 4 and is adapted to be suitably connected with and to carry the body of absorbent material 2. As here shown, the rod passes through a suitable opening in the absorbent material and also through an opening 6 in the plate 7, which rests upon the upper surface of the body 2, and a nut 8 upon the rod is adapted to engage the lower wall of the body in order to lock the same in position.

9 designates an opening extending through the body 2, here shown as adjacent one side thereof, said opening being formed with flaring walls, in order to provide a narrow portion 10 adjacent the upper face of the body 2. 11 designates a wick or a capillary member adapted to extend into the fluid and to pass through said opening 9 to engage with the wall thereof at the narrow portion 10, in order to suitably close the same, whereby the fluid drawn up through the wick will pass into the body 2 at the upper portion thereof, as will be evident as otherwise the fluid would pass from the wick to the lower portion of the material leaving the upper portion of the wick and the material substantially dry. In devices of this character where the fluid is directly exposed to the atmosphere, the surface of the fluid is necessarily limited as to area and where the capillary member extends only part way into the absorbent material, the said material is not evenly and uniformly supplied with the fluid as only that portion of the material immediately surrounding and below the capillary member is fully supplied with fluid and the upper portion will be substantially dry and useless. By the present construction fluid is fed directly to the top of the material and by gravity and capillary action the entire body of the absorbent is uniformly and evenly supplied with fluid so that a relatively large evaporating surface area is provided.

I preferably desire to provide a depressed

seat 12 in the upper portion of the body 2, in which is located a pad 13 in suitable connection with the wick, in order that substantially the entire upper surface of the body 2 will be suitably supplied with the fluid.

14 designates an outer casing which may be employed, and in which the receptacle 1 and body 2 are seated and which casing is adapted to be secured to a suitable support, and the walls of said casing being provided with suitable openings to permit passage of the evaporated fluid therethrough to the atmosphere.

The operation of the parts just described will be readily apparent. A suitable amount of fluid is placed in the receptacle 1 and the position of the block 2 with respect to the receptacle 1 is adjusted by means of the rod and support; that is to say, a greater or less amount of the evaporating surface of the body 2 is caused to extend beyond the wall of the receptacle, in order to provide a greater or less amount of evaporation therefrom. By this means, the amount of evaporation may be regulated, depending upon the size of the room. As the wick supplies the fluid to the body 2, (it being understood that no portion of the body is ever immersed in the fluid), a constant supply of the fluid will be fed to the body 2, by means of which I not only regulate the amount of evaporation, but cause a constant supply of the fluid to be fed to insure a constant evaporation.

I am aware that it has been proposed to provide for the raising and lowering of a body of absorbent material in a container, the lowering being for the purpose of immersing the body in the fluid in order that the same will be absorbed and thereafter the body of absorbent material is raised, in order that the fluid so absorbed will be disseminated. The disadvantages of this construction, however, are that there is no regular or constant amount of dissemination, since, when the body has absorbed the full quantity of liquid or fluid and is then raised, a very great amount of evaporation takes place, but as the fluid is disseminated, the amount of evaporation grows less and less. That is, when the absorbent material is first elevated, there is too great a dissemination of the fluid, and finally, there is not enough. In addition, constant personal attention is necessary to raise and lower the absorbent material to supply the same with the necessary fluid. This is not the case in my construction, wherein, as above stated, I provide for a constant supply of the fluid and the evaporation is regulated.

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

1. A container for disseminating fluid comprising in combination, an open ended receptacle for a supply of the fluid to be disseminated, a body of absorbent material closing the open end of the receptacle, a support on the receptacle, a carrier to which the body is secured and supported adjustable on the support, whereby the amount of the exposed surface of the body may be varied by adjusting said carrier on said support, and means for feeding the fluid to the body.

2. In a device of the character stated, an open ended container for a supply of fluid to be diffused, a body of absorbent material closing the open end of the container and having an opening therethrough, a capillary member extending into the fluid and seated in said opening to engage the walls thereof only at the upper portion and spaced from the wall of the opening below said point of engagement, whereby fluid will be fed to the top of the absorbent and will pass downwardly to supply the body of the material substantially uniformly with the fluid to evaporate.

JAMES J. McDONNELL.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."