

No. 644,158.

Patented Feb. 27, 1900.

C. E. BLAKE.  
DISINFECTING DEVICE.

(Application filed Sept. 5, 1899.)

(No Model.)

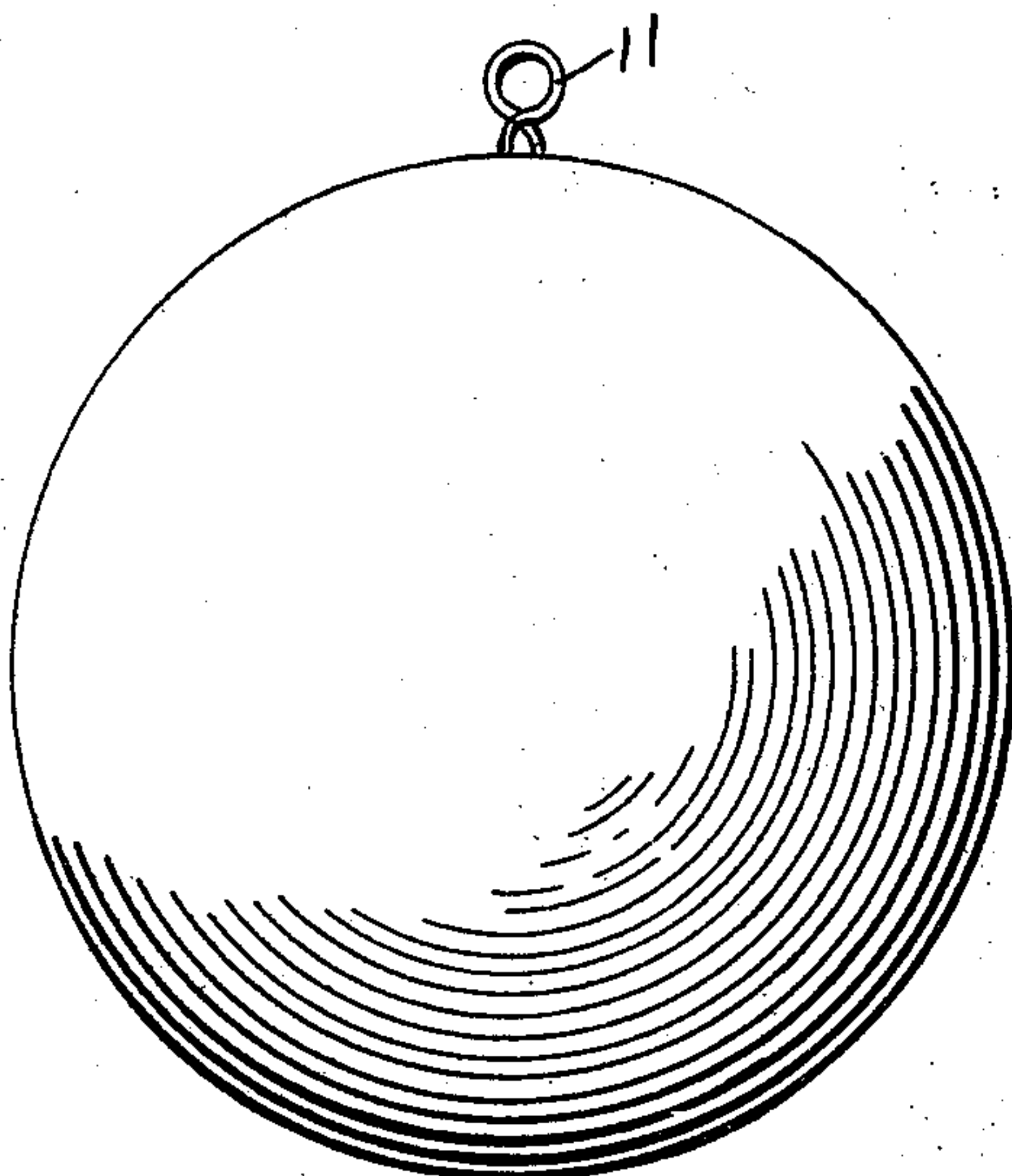


FIG. 1.

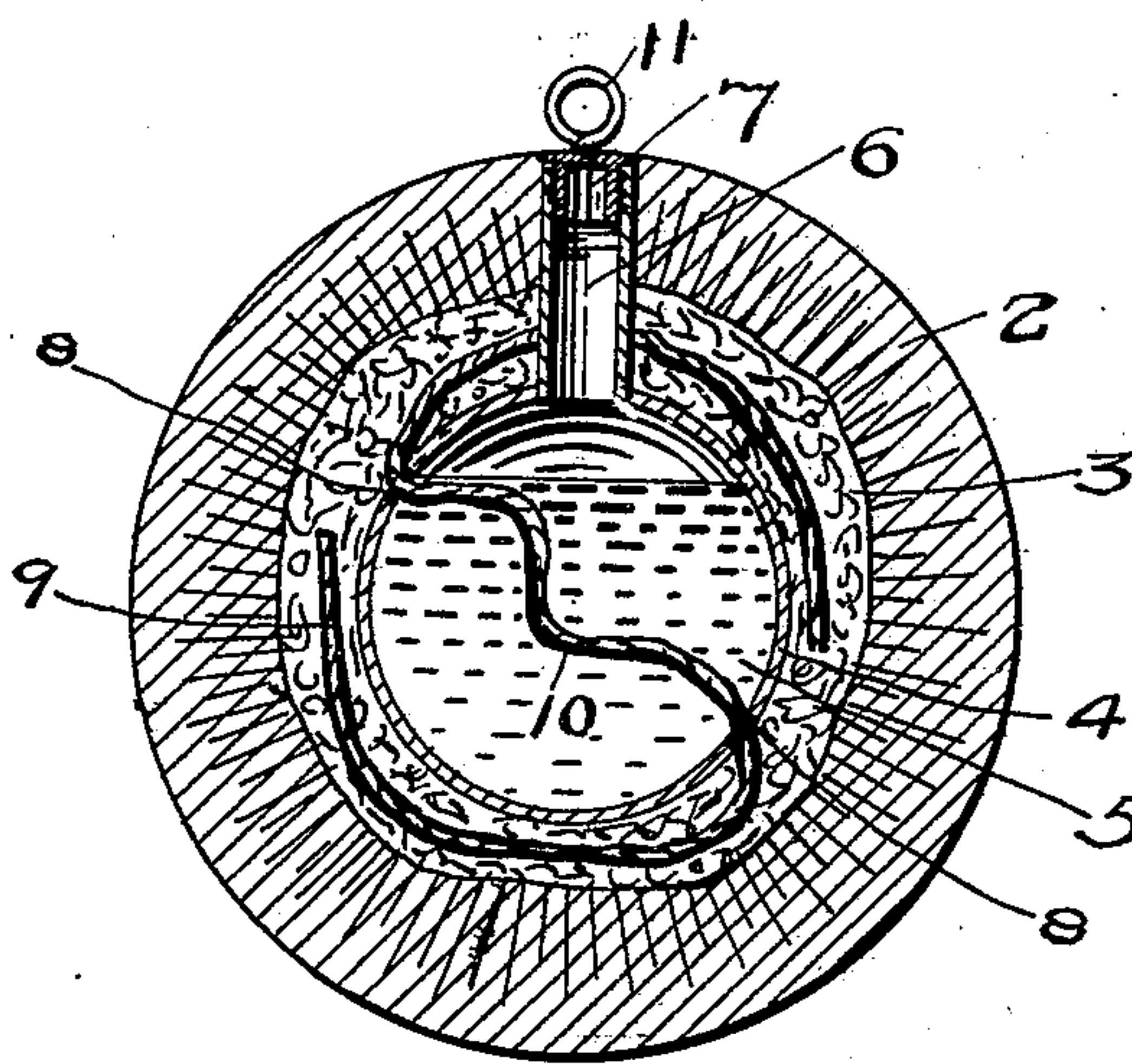


FIG. 3.

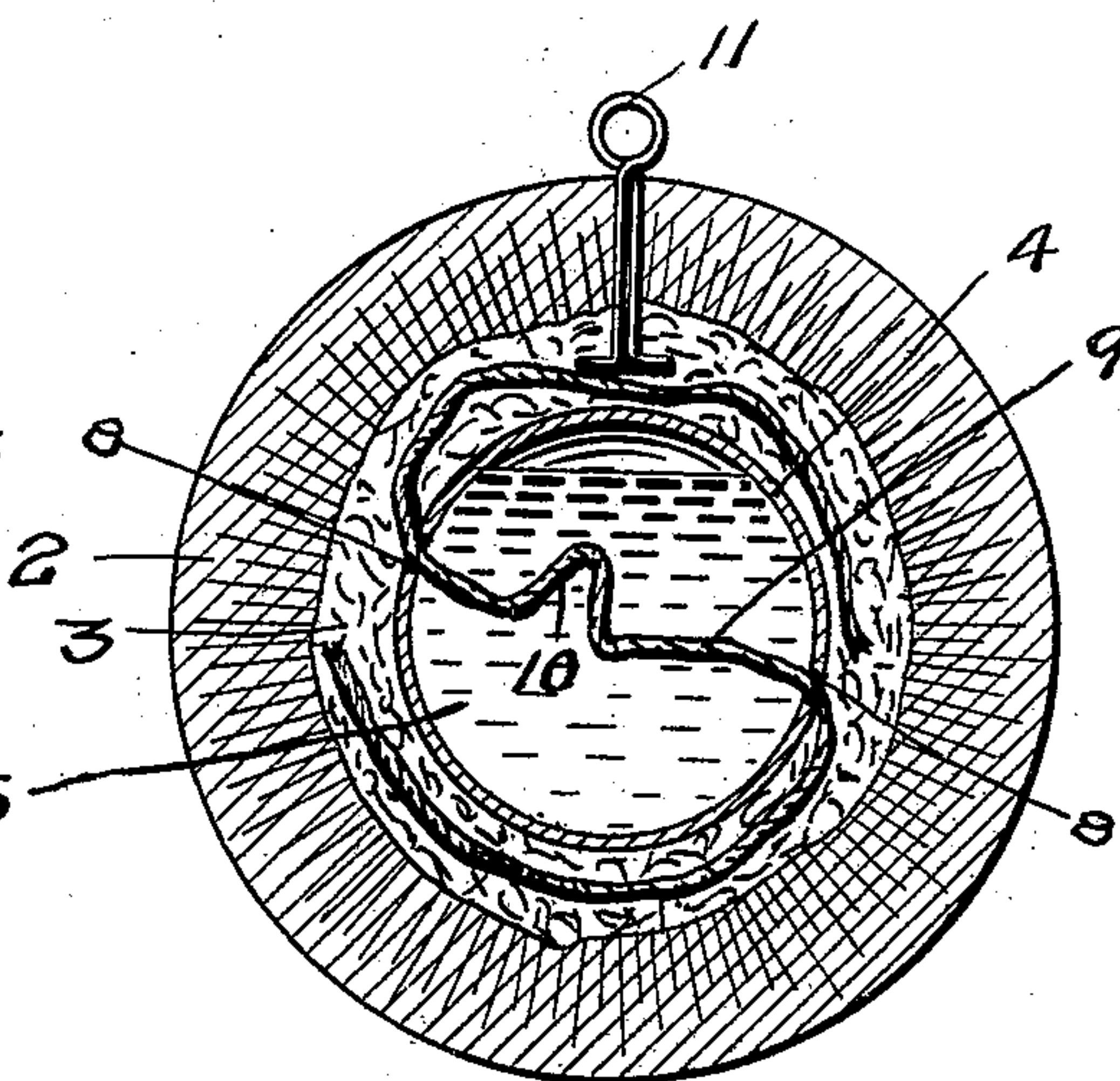


FIG. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 644,158, dated February 27, 1900.

Application filed September 5, 1899. Serial No. 729,430. (No model.)

*To all whom it may concern:*

Be it known that I, CARLOSTINE E. BLAKE, of the city of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Disinfecting Devices, of which the following is a specification.

My invention relates to a disinfecting or deodorizing device; and the object of the invention is to provide a disinfector or deodorizer in the form of a cake or ball which may be placed or hung where needed and which will emit or give off a disinfecting or deodorizing gas or vapor for several months.

The invention consists generally in a ball or cake of disinfecting material, such as naphthalene, having within it a wicking or core and a containing vessel for a liquid, whereby said core of wicking is kept saturated with another disinfecting or deodorizing chemical that is evaporated through the outer shell of the ball.

The invention further consists in the combination, with the inner containing vessel, of a wick so arranged therein as to feed the liquid from the vessel regardless of the position of the same, all as hereinafter described, and particularly pointed out in the claims.

The invention consists particularly in a disinfecting device comprising an inner ball or bulb filled with a suitable liquid, means for slowly feeding the liquid from said ball or bulb, and an outer shell of volatile substance molded about or inclosing said inner ball and through which and with which the liquid from said ball evaporates.

The invention will be more readily understood by reference to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a view of a disinfecting-ball embodying my invention. Fig. 2 is a sectional view thereof. Fig. 3 is a similar sectional view showing the means for filling the inner chamber or vessel.

The shell 2 of the ball is preferably formed of naphthalene, which is molded thereon and is crystalline in its formation and is also porous to a limited extent. With the naphthalene or like material I compound an oil which, being present on the surface of the ball, prevents the rapid deterioration or evaporation

of the naphthalene or like material. Within the shell is a wicking or layer of cotton, hemp, or like material 3, which surrounds a vessel or chamber 4, of metal or glass, that contains the active deodorizing and disinfecting liquid 5, preferably carbolic acid. The vessel 4 may be closed, as shown in Fig. 2, or it may have a tube 6 leading to the surface of the ball and closed by a plug 7. In the latter case the vessel need not be filled until the ball is completed, while the shell of the ball shown in Fig. 2 is only made after the vessel 4 has been filled. The vessel 4 is provided with two holes 8 in opposite sides, and in these holes I thread a wick 9, the ends of which are preferably extended into and embedded in the layer of cotton or other material forming the outer wick 3. There is a sufficient slack 10 in the wick within the vessel 4 to allow the wick to always fall into the lower part of the ball regardless of its position, and being within the liquid the liquid will be fed to the outer wicking by capillary attraction. In this manner the wicking 3 is kept saturated with the desired liquid. The liquid will vaporize and pass through the comparatively porous shell of naphthalene, the vapor of which latter volatile substance will be added to that of the liquid from the vessel 4. The volatilization of the naphthalene is comparatively slow, and the liquid within the inner vessel or chamber is fed so slowly that the ball will act or last for a great length of time, particularly as the evaporation of the liquid is held back by the shell of naphthalene. The solid ball—that shown in Fig. 2—is preferably provided with a loop 11, by which the ball may be suspended.

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

1. A disinfecting device, comprising the inner ball, filled with a suitable liquid, a wick extending from the same, and the outer shell of volatile substance, molded about or inclosing said inner ball and through which and with which the liquid from said ball evaporates, substantially as described.

2. A disinfecting device, comprising an inner ball, filled with a suitable liquid and having a wick extending therefrom, in combination, with an inclosing wick cover upon said

ball, and a shell of volatile material, molded about or inclosing said ball with its wick covering, all substantially as described and for the purpose specified.

5 3. A disinfecting device, comprising an inner ball, filled with a suitable liquid and having a wick extending therefrom, in combination, with an inclosing wick cover upon said ball, and a shell of volatile material, molded  
10 about or inclosing said ball with its wick covering, said shell having an oily surface to prevent the direct attack of moisture thereon, substantially as described.

15 4. A disinfecting device, comprising the inner vessel of non-porous material, filled with

a suitable liquid, said vessel provided with an exit-opening for the fluid, and means leading through said opening for slowly feeding the liquid therefrom, and the outer shell of volatile substance molded about or inclosing  
20 said inner vessel and through which and with which the liquid from said vessel evaporates, substantially as described.

In testimony whereof I have hereunto set my hand, this 31st day of August, 1899, at  
25 Minneapolis, Minnesota.

CARLOSTINE E. BLAKE.

In presence of—

RICHARD PAUL,  
M. E. GOOLEY.