

H. W. CURTIS.

FUMIGATOR.

APPLICATION FILED JULY 9, 1908.

907,319.

Patented Dec. 22, 1908.

FIG. 1.

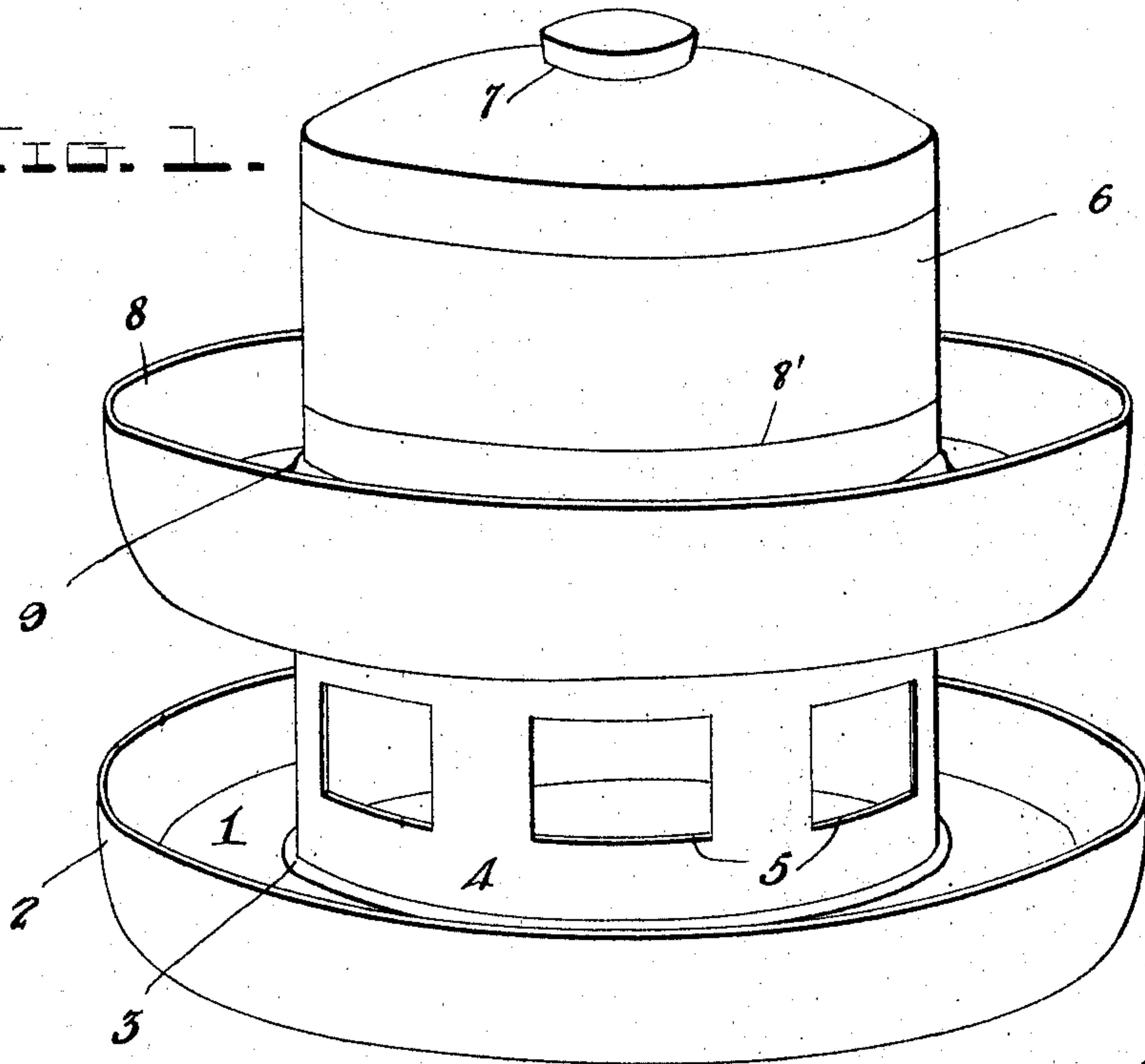


FIG. 2.

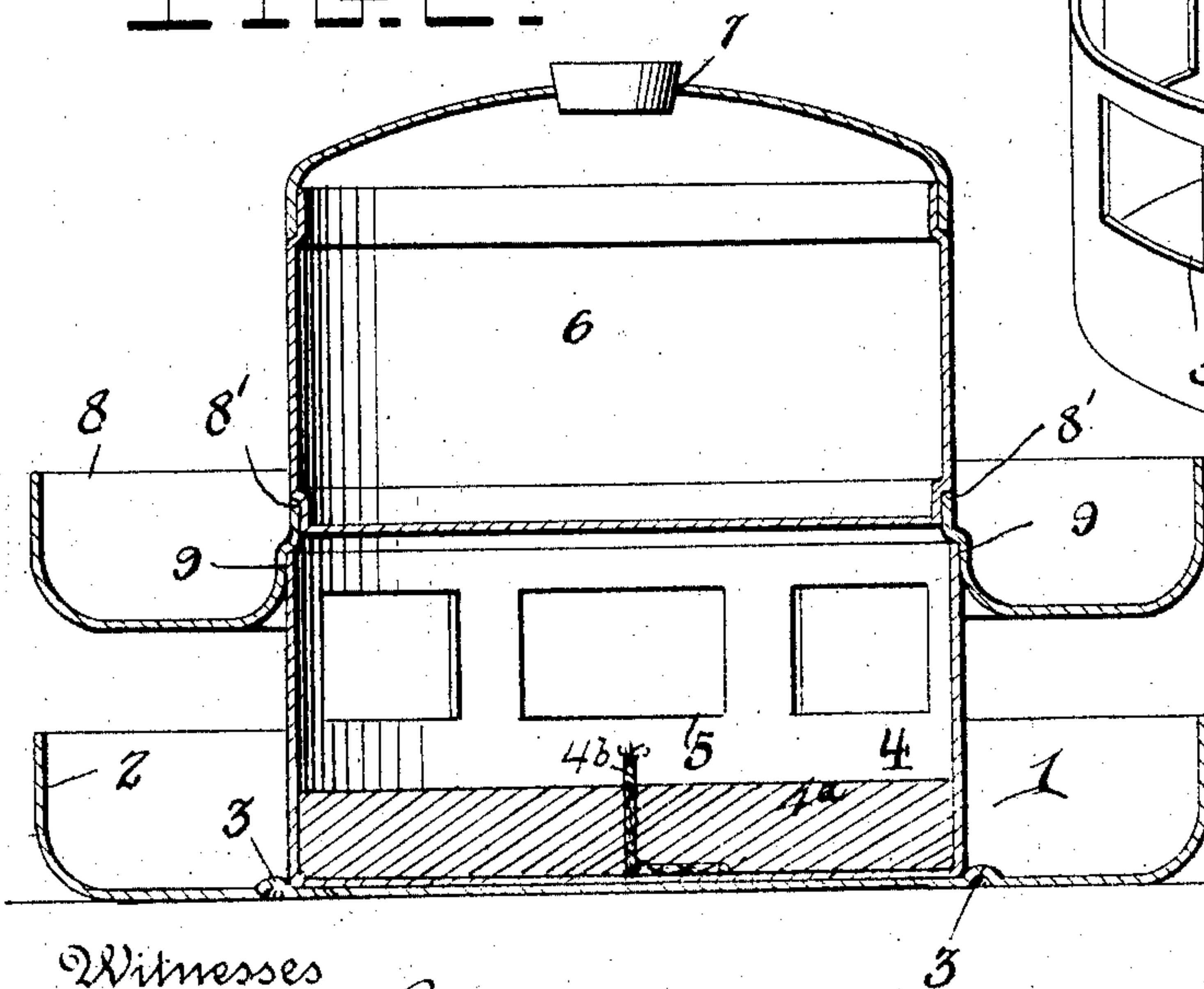
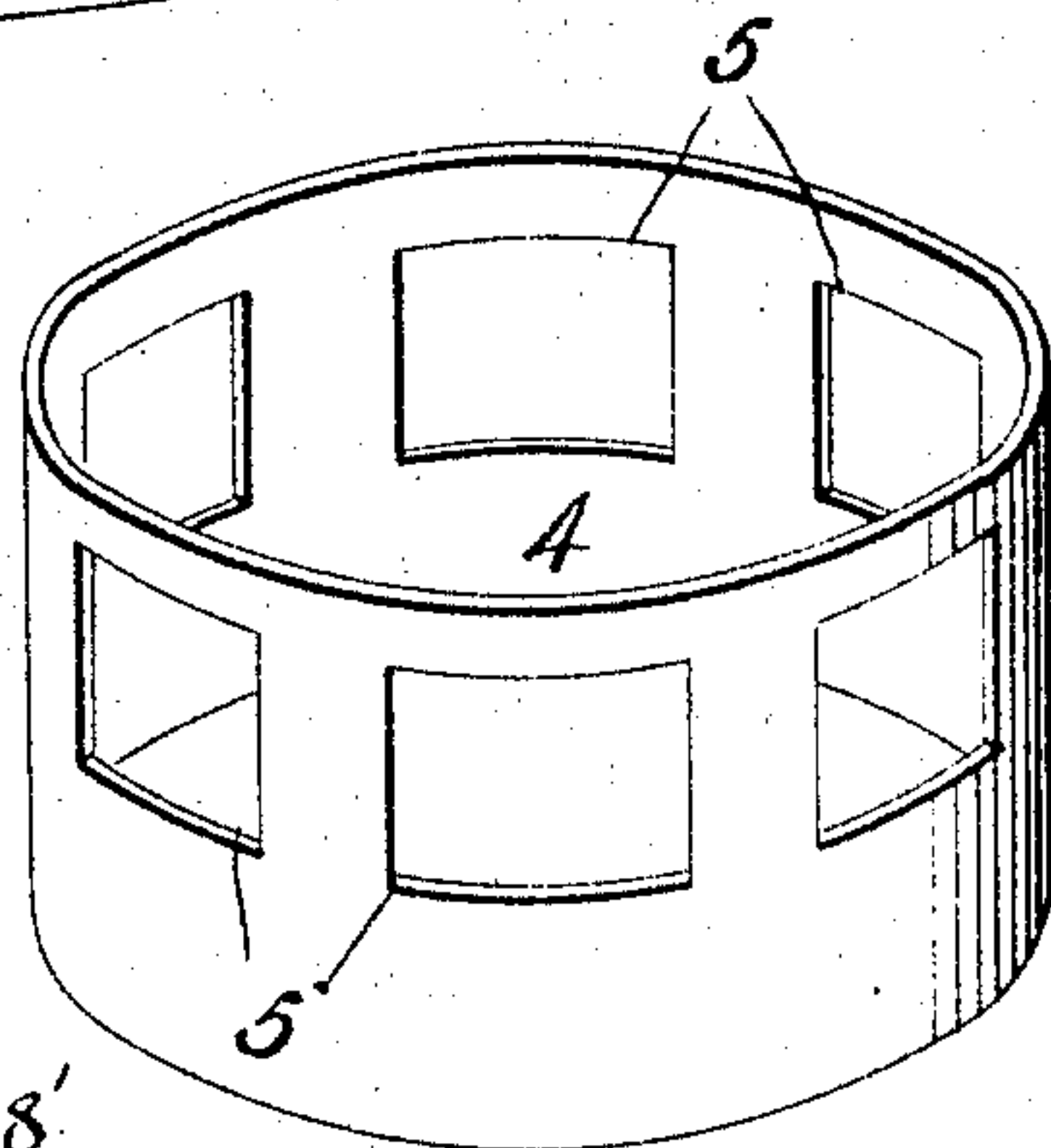


FIG. 3.



Witnesses

Chas. L. Griesbauer,
C. H. Griesbauer.

by

H. W. Curtis

Attorneys

UNITED STATES PATENT OFFICE.

HARVEY W. CURTIS, OF CHICAGO, ILLINOIS.

FUMIGATOR.

No. 907,319.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed July 9, 1908. Serial No. 442,716.

To all whom it may concern:

Be it known that I, HARVEY W. CURTIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fumigators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improved fumigators or disinfectant generators.

The object of the invention is to provide a simply constructed and effective fumigator for disinfecting purposes.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a fumigator constructed in accordance with this invention; Fig. 2 is a vertical section thereof; Fig. 3 is a perspective view of the lamp detached.

In the embodiment illustrated a tray 1, is shown having an upturned flange 2, to adapt it to hold water for cooling the device and prevent danger of fire being occasioned therefrom. This tray is preferably provided with an annular rib 3, on its inner face to form a stop for preventing lateral movement of the lamp which it is designed to hold.

The lamp here shown is made in the form of a cup shaped receptacle 4, having a plurality of spaced openings 5, formed in the upper portion of the body thereof to permit the access of air to the flame. This lamp may be provided with any suitable wick holding means arranged in the bottom thereof, paraffin 4^a being used with a wick 4^b supported therein and the upper edge of the lamp is adapted to be connected with the disinfectant containing vessel, now to be described.

The containing vessel, as shown, comprises a closed receptacle 6, having an opening 7, in the top thereof provided with a suitable closure, such as a cork or any other suitable device. This receptacle 6, is provided around the lower end thereof with a trough 8, for holding water. A groove or socket 9, extends around the bottom of this receptacle to receive the upper edge of the cup-shaped lamp member 4, by means of which said receptacle is supported above the flame of the

lamp in position to be heated thereby. The trough 8 is preferably made separable from the receptacle 6 and has an offset annular portion 8' to form the lamp receiving groove or socket 9.

In the use of this device, a suitable volatile disinfectant such as an aqueous solution of formaldehyde, is first placed within the receptacle 6, and the opening 7, therein is closed until the device is ready to be used. Water is first placed in the lower plate or tray 1, say, about one ounce and the trough 8, is also filled with water. The closure is then removed from the opening 7, and about one ounce of water is poured into the container and the wick of the lamp is then lighted and the device is left in the room to be fumigated, the transoms and all openings having first been tightly closed. The room is then left closed from five to ten hours, the longer the better, and when opened all germs contained therein will have been destroyed.

By constructing the tray 1 as shown with an upturned flange 2, two spaced water reservoirs are provided which provides for the use of a large quantity of water thereby increasing the volume of vapor.

In using formaldehyde as a germicide, it is essential that formaldehyde vapor be produced and that that vapor be raised to the highest temperature it is possible to obtain in order that it may have the necessary penetrating power and, by applicant's construction, the fire produced by the lamp 4 serves not only to heat the cup 6 but also to heat the water in the reservoirs formed by the tray 1 and the trough 8 causing the water to evaporate and produce the necessary vapor.

This device is simple and efficient and by placing the water in the tray and in the trough of the receptacle all danger of fire is obviated. The lamp is preferably provided with a wick in the center thereof having a predetermined amount of paraffin placed therearound adapted to burn for a certain length of time after which the flame will be extinguished, and this form of lamp renders the device very safe.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of the invention, as defined in the appended claims.

I claim as my invention:

- 5 1. A fumigating device comprising two vertically spaced water troughs, a lamp arranged between said troughs with the heating portion thereof in close proximity to both of said troughs to quickly heat the water
10 therein, and a disinfectant containing vessel supported above said lamp adjacent to the upper trough and in the path of the vapor rising from both of them.
2. A fumigating device comprising two
15 vertically spaced annular water troughs, a lamp arranged between them and supporting the upper trough, and a disinfectant containing vessel supported by said lamp within said upper trough.
- 20 3. A fumigating device comprising a closed vessel having an opening in its upper end and a trough extending around the lower end thereof, said trough having a groove extending around its inner face, a lamp having
25 its upper edge adapted to detachably engage said groove for supporting the trough and vessel above the lamp and a water containing vessel arranged around the base of said lamp.
- 30 4. A device of the class described com-

prising a closed vessel having an opening in its upper end, and a trough extending around the lower end thereof, said trough having a groove extending around its inner face, and a lamp having its upper edge adapted to de- 35 tachably engage said groove for supporting the trough and vessel above the lamp.

5. A fumigator comprising a base plate having an upturned flange extending there-
around to form a water trough, a cup-shaped 40 lamp having openings in the side walls thereof near its upper end, and a closed vessel for the disinfectant provided with means for detachably engaging said lamp and supporting said vessel thereabove, and a water trough ar- 45 ranged around the bottom of said vessel.

6. A fumigating device comprising two vertically spaced water troughs, a lamp arranged between said troughs and supporting the upper trough, and a disinfectant-con- 50 taining vessel supported by said lamp adjacent said upper trough.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HARVEY W. CURTIS.

Witnesses:

HENSEY S. GOLDSMITH,
HARRIETT A. KELLEHER.