

(No Model.)

N. M. DYER.
DISINFECTING APPARATUS.

No. 471,603.

Patented Mar. 29, 1892.

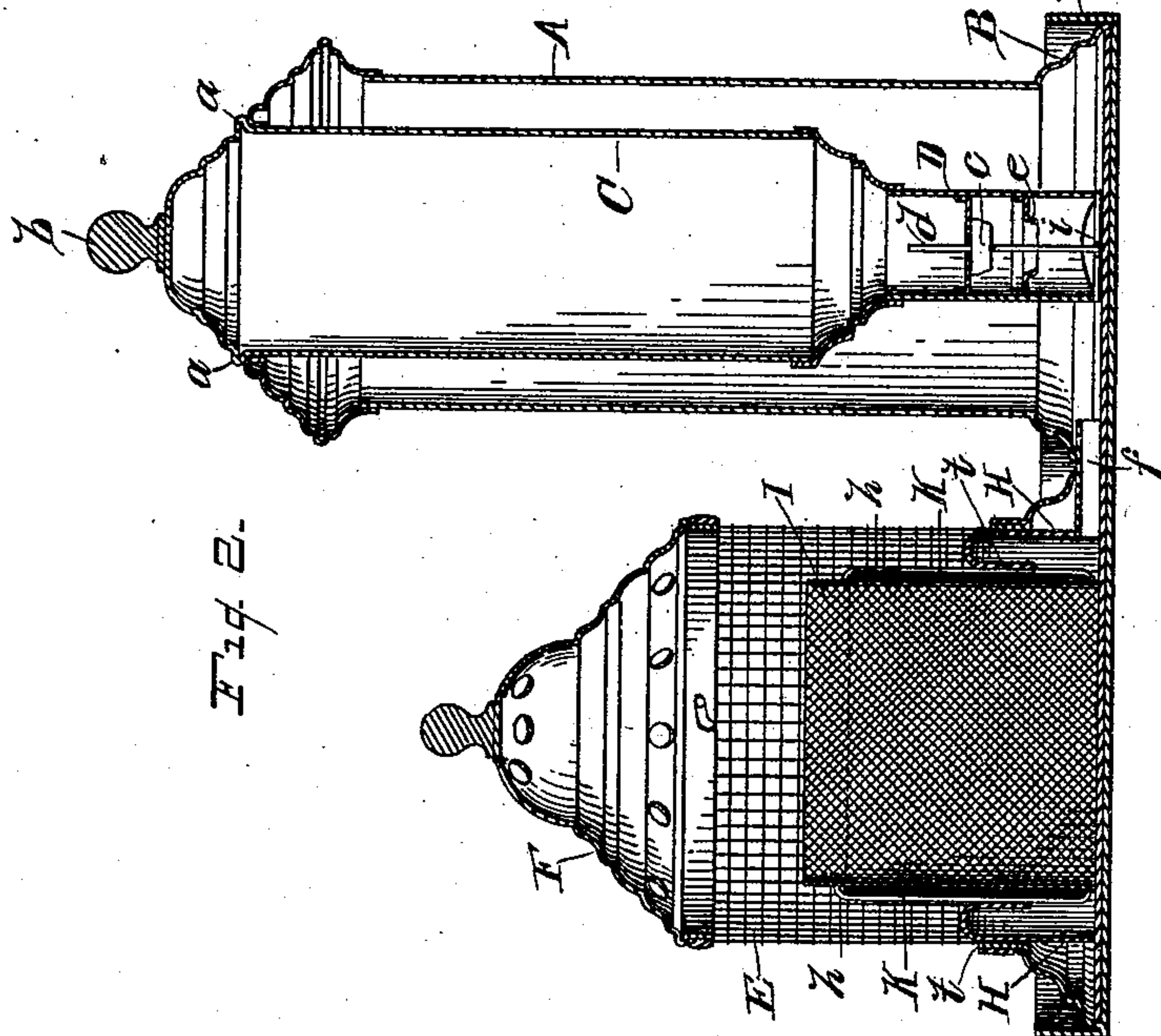


Fig. 2.

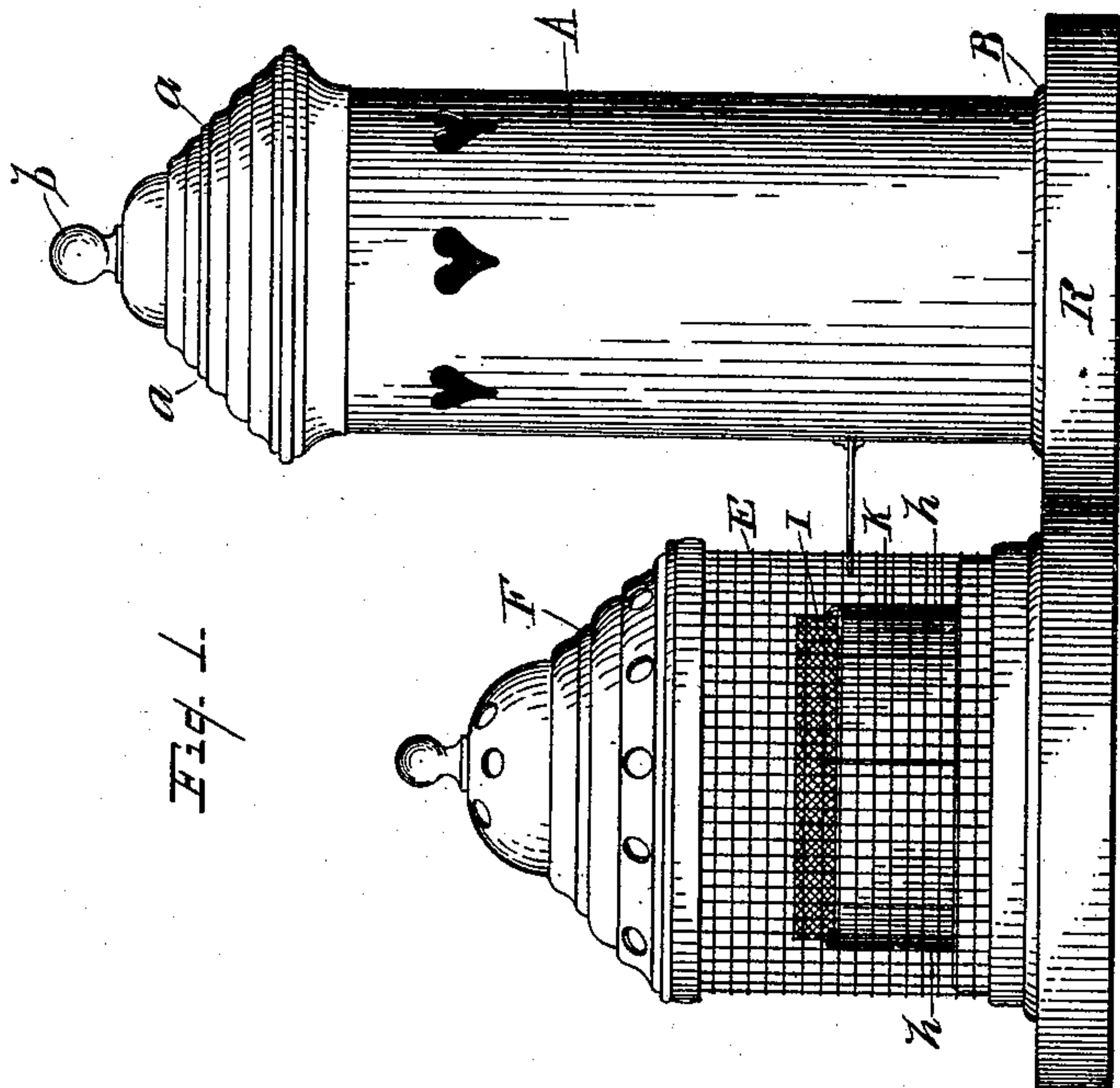


Fig. 1.

WITNESSES.
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DISINFECTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 471,603, dated March 29, 1892.

Application filed September 10, 1891. Serial No. 405,330. (No model.)

To all whom it may concern:

Be it known that I, NELSON M. DYER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
5 invented certain new and useful Improvements in Disinfectant Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as
10 it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 This invention relates to an improved device for dispensing aromatic disinfectants especially designed for use in water-closets, sick-rooms, and all places where it is desired to disinfect and perfume the air; and it consists in a certain construction and arrangement of parts, as hereinafter fully set forth,
20 the essential features of the device being pointed out particularly in the claims.

The object of the invention is to provide a
25 receptacle or containing-vessel for the disinfecting solution in which the arrangement is such that the discharge of said solution therefrom is automatically controlled, whereby a continuous and uniform dispensation of the
30 disinfectant is effected. This object is attained by the construction illustrated in the accompanying drawings, in which—

35 Figure 1 is a side elevation of my improved device, and Fig. 2 is a central vertical section through Fig. 1.

Referring to the letters of reference, A designates a hollow cylindrical case or housing, the base of which terminates in a flaring pan B, said case having an opening in the top
40 thereof, through which the liquid-containing vessel C is placed therein. The upper end of said vessel is conical, in conformation to the top portion of the case A, and forms a complementary top thereto, and is provided with
45 the knob *b*, by means of which the vessel C may be withdrawn from said case, said vessel being also provided at its upper end with the flange *a*, that engages the rim in the top of the case A, thereby tightly closing said open-

ing and supporting the vessel in a directly 50 vertical position, as shown in Fig. 2.

D designates the neck of the vessel C, in which is located the valve-seat *e* and valve *c*, that controls the opening through said neck, the valve *c* being mounted on a stem *d*, which; 55 when said valve is closed, projects beyond the lower end of the neck D. In the lower end of said neck is a series of vent-openings *i*, for purposes hereinafter described.

E designates a circular wire cage or screen, 60 provided with a removable perforated top F and a tight metal base or cup H, which is connected with the pan B of the case A by means of the tube or conduit *f*.

I designates a hollow cylinder formed of 65 wire-gauze or any suitable perforated material. Around said perforated cylinder is placed an exterior cylinder or covering of felt or other bibulous substance K, which is held in place by the looped guards *h*, attached to 70 the perforated cylinder I. This cylinder, with its bibulous covering, is placed within the cup H within the cage E, and is held centrally therein by the upper rolled edge *t* of said cup, that embraces said cylinder, as clearly shown 75 in Fig. 2.

To prepare this improved device for operation, the vessel C is withdrawn from the case A and filled with the aromatic disinfecting solution, which is poured into said vessel 80 through the neck D, the valve *c* therein, dropping from its seat, affording a free passage for the liquid therethrough. When filled, the vessel C is inverted, the weight of the liquid therein forcing the valve *c* to its seat and preventing the escape of said liquid when placing the vessel in the case A. As the vessel is placed in said case, the projecting end of the valve-stem *d* will strike the bottom of the pan B and raise the valve, (see Fig. 2,) so as 90 to permit the liquid to flow from the vessel C into said pan and through the pipe *f* into the cup H until it reaches a point on a level with the top of the vent-opening *i* in the neck D, when the air-supply to the vessel C will be 95 cut off and the flow of liquid will cease.

By means of the lower edge of the bibulous covering K of the perforated cylinder I, ex-

tending into the liquid in the cup H, said covering will absorb the liquid and become saturated therewith. The solution, being of a highly volatile nature when exposed to the air upon the bibulous covering K, will readily evaporate, whereby the air will be permeated with its aromatic exhalations and rendered fragrant and pure.

As the solution in the cup and pan is absorbed sufficiently to bring its level below the vent-opening i, it will be supplied by the liquid that will then flow from the vessel C until the liquid in the pan rises and again closes said vent, thereby automatically controlling the liquid-supply and maintaining a uniform dissipation thereof.

R designates a tray, upon which the apparatus is placed and which catches any accidental drip or overflow therefrom.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a disinfecting apparatus, the combination of the housing-case having an opening through the top and a liquid-containing pan at the base, the cup adjacent to said pan, the conduit connecting said cup and pan, the vessel having the neck at its lower end, the valve and valve-stem in said neck, the neck of said vessel resting on said pan, the cage having

the removable top, the gauze cylinder, and absorbent agent located in said cup, substantially as specified.

2. In combination with the pan and cup placed in juxtaposition and having a liquid-communicating passage, the housing over said pan, said housing having an opening through the top, the vessel in said housing having the vent-opening, valve, and valve-stem in the lower end portion of said vessel, the absorbent agent in the cup, and the cage mounted on the cup and encircling the absorbent agent.

3. In combination with the pan and cup placed in juxtaposition and having a liquid-communicating passage, the housing over said pan, said housing having an opening through its top, the vessel in said housing having at its upper end the horizontal flange and the knob affording means for its removal and having the vent-opening, valve, and valve-stem in the lower end portion thereof, the absorbent agent in the cup, and the cage mounted on the cup and encircling the absorbent agent.

In testimony whereof I affix my signature in presence of two witnesses.

NELSON M. DYER.

Witnesses:

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