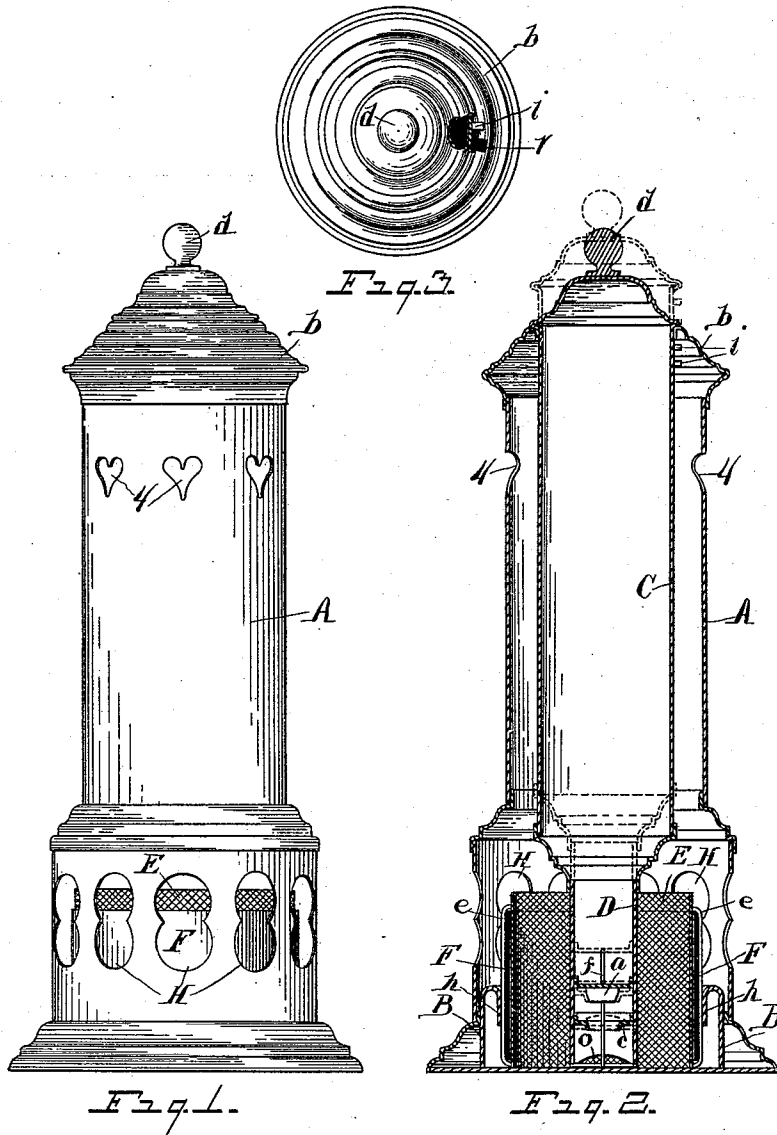


(No Model.)

N. M. DYER.
DISINFECTING DEVICE.

No. 471,602.

Patented Mar. 29, 1892.



WITNESSES.
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UNITED STATES PATENT OFFICE.

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DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 471,602, dated March 29, 1892.

Application filed September 10, 1891. Serial No. 405,329. (No model.) Patented in Canada March 16, 1891, No. 36,148.

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 invented certain new and useful Improvements in Disinfecting Devices, (for which Letters Patent were granted on the said invention in the Dominion of Canada, No. 36,148, March 16, 1891;) 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in a device for the dispensation of aromatic disinfectants especially designed for overcoming foul odors and rendering the air of compartments fragrant and pure; and it consists in a certain construction and arrangement of parts, as hereinafter fully set forth, the essential features of which being pointed out particularly in the claims.

The object of the invention is to provide means for dispensing the liquid disinfectant in such manner as to automatically control the supply thereof, and a further provision whereby the supply may be entirely cut off when desired. This object is attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved device. Fig. 2 is a central vertical section through Fig. 1. Fig. 3 is a plan view of the device, a portion of the top being broken away, showing construction of parts.

Referring to the letters and figures of reference, A designates a hollow vertical cylinder that forms the inclosing case of the device, in the base of which is located the cup B.

C designates the vessel that contains the disinfecting solution, which may be any of the well-known compounds. Said vessel is cylindrical in form and is placed within the case A through an opening in the top thereof. The upper end of said vessel is supported in the top portion *b* of said case and forms a complementary top thereto and is provided

with a knob *d*, by means of which the vessel may be raised or withdrawn.

D designates the neck of the vessel C, and is provided with the valve *a*, located therein, having a valve-seat *c*, said valve being provided with the stem *f*, that extends beyond the end of said neck when said valve is on its seat and the opening through said neck is closed.

E designates a wire-gauze or perforated annular screen provided with a wick or outer covering of bibulous material F, which is secured to said screen and retained in place by the wire loops *e*. (Clearly shown in Fig. 2.) Said screen, with its absorbent covering, is placed within the cup B in the case A, and is held centrally therein by the rolled rim *h* of said cup, which environs said screen, the screen in turn surrounding the neck D of the vessel C.

To prepare this improved device for operation, the vessel C is withdrawn from the case A and the solution poured therein through the neck D, the valve *a* dropping from its seat and affording a free opening therethrough. When filled, the vessel C is inverted, the weight of the solution therein closing the valve *a* and preventing the escape of the solution while the vessel is being placed within the case A. As the vessel C is placed in said case, the stem *f* of the valve *a* will strike the bottom of the pan or cup B and raise said valve from its seat *c*, permitting the liquid in said vessel to flow through the neck D into the cup B until the liquid in the cup reaches a level above the vent-opening *o* in the neck, where by the supply of air to the vessel C will be cut off and the flow of liquid therefrom will cease. The lower edge of the bibulous covering F, resting in the solution in the cup B, will absorb said solution and become thoroughly saturated therewith. The greater portion of said wick or covering being exposed to the atmosphere the liquid thereon is readily evaporated and thrown off through the openings H in the base and the openings *k* in the top of the case A, perfuming and purifying the air. When the liquid in the cup has been exhausted by absorption and evaporation, so as to bring its level below the vent-opening *o* in the neck of the vessel C, air will

be admitted to said vessel, and the liquid will again flow therefrom to replenish that within the cup, until the liquid therein again attains a level of sufficient height to close the vent *o* and stop the flow thereof, whereby the dispensation of the disinfecting solution is automatically controlled, insuring a uniform dispensation of its volatile exhalations.

In the upper end of the vessel C, as shown in Fig. 2, is a series of pins *i*, that register with a notch *v* (see Fig. 3) in the rim of the top portion *b* of the case A. This arrangement permits the vessel C to be raised until the first or upper pin thereon passes through the notch *v*, when it is turned and said pin engaged with the rim of the top portion *b* of the case, whereby the neck of the vessel C is supported at such height above the bottom of the cup B as to permit of a greater flow of liquid therefrom; or, if desired, said vessel may be raised and the lower pin engaged with the rim of the top portion *b* in like manner, when the neck D of said vessel will be supported a sufficient distance above the bottom of the cup to permit the valve *a* to fall and close the opening therethrough, as clearly shown by dotted lines in Fig. 2, thereby entirely shutting off the flow of liquid 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 of the nature

indicated, the combination of the cylindrical inclosing case having an opening through the top, the perforated base and cup therein, the absorbent agent in said cup, the inverted vessel suspended from the top of the inclosing case, and the valve and valve-stem in the lower end of the inverted vessel, substantially as set forth.

2. In combination with the case A, having the opening through the top, the perforated annular base and cup therein, the absorbent agent in said cup, and the inverted vessel adjustably suspended within the case A, said inverted vessel having the valve and valve-stem in the lower end thereof, said valve-stem pressing the bottom of the cup when the parts are in their normal position.

3. In combination with the case A, having the opening through the top, the ventilating-base, the cup therein, the gauze screen, the absorbent mounted thereon, the inverted vessel adjustably mounted in the case A, said vessel having the neck D and vent-opening in the end thereof, and the valve and valve-stem in said neck, as set forth.

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

NELSON M. DYER.

Witnesses:

J. V. BROWN,
W. F. CLAXTON.