An improved appliance for disinfecting by means of fumigation / [Charles Thomas Kingzett].

Contributors

Kingzett, Charles Thomas, 1852-1935.

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PROVISIONAL SPECIFICATION.

"An Improved Appliance for Disinfecting by Means of Fumigation."

I, Charles Thomas Kingzett, F.I.C., of Elmstead Knoll, Chislehurst, in the County of Kent, Chemical Manufacturer, do hereby declare the nature of this invention to be as follows:—

My invention relates to an improved means of disinfecting by fumigation and consists in the use of an absorbent solid block such as a casting of plaster for taking up a quantity of volatile disinfectant powder or for soaking up a quantity of formic aldehyde solution or other volatile liquid disinfectant from which the said disinfectant is afterwards generated in the form of fumes or vapour by the use of a spirit lamp or other heating appliance and in connection therewith of the use of means by which a disinfectant liquid or water can be made to drip upon the said absorbent block with the object of increasing the supply of disinfectant agent or of facilitating the generation of its fumes or vapour.

In the case of formic aldehyde it is very difficult to expel the whole of this substance from its aqueous solution and the operation takes much time whereas by employing such an appliance as is described in this specification the whole of it may be generated therefrom in the form of vapour in a much shorter space of time and the use of this appliance also enables the operator to produce aqueous vapour at the same time which is a distinct advantage as the aqueous vapour increases the volume and acts as a carrier of the disinfectant fumes and brings them into intimate contact with the articles and things to be disinfected.

As instances of solid disinfectants that may be employed in connection with such an appliance as is herein described, corrosive sublimate and paraformaldehyde may be named, and as instances of liquid disinfectants that may be employed there may be named formicaldehyde in aqueous solution, "Sanitas" oil, and liquid carbolic acid.

The apparatus consists of a cage of metal, wire or gauze or the like having at its bottom a lamp above which is supported the block of absorbent material which is preferably contained in a metal tray or basin. Above the block is a vessel containing water or other liquid and provided with small holes wicks or other appliances to allow the liquid to slowly drip onto the upper surface of the block.

Dated this 20th day of September 1900.

C. T. KINGZETT.

COMPLETE SPECIFICATION.

"An Improved Appliance for Disinfecting by Means of Fumigation."

I, Charles Thomas Kingzett, F.I.C., of Elmstead Knoll, Chislehurst, in the County of Kent, Chemical Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

My invention relates to an improved means of disinfecting by fumigation and consists in the use of an absorbent solid block such as a casting of plaster, or sandstone, or compressed Kieselguhr, or pumice stone, or other neutral material,

[*Price* 8*d*.]

that is to say, material the chemical composition of which would not interfere with or destroy the disinfectant which is employed, for taking up a quantity of volatile disinfectant powder, or for soaking up a quantity of formic aldehyde solution, or other volatile liquid disinfectant, from which the said disinfectant is afterwards generated in the form of fumes or vapour by the use of a spirit lamp or other heating appliance, and in connection therewith of the use of means by which a disinfectant liquid or water can be made to drip upon the said absorbent block with the object of increasing the supply of disinfectant agent or of facilitating the generation and diffusion of its fumes or vapour.

In the case of formic aldehyde it is very difficult to expel the whole of this substance from its aqueous solution, and the operation takes much time, whereas by employing such an appliance as is described in this specification the whole of it may be generated therefrom in the form of vapour in a much shorter space of time, and the use of this appliance also enables the operator to produce aqueous vapour at the same time which is a distinct advantage, as the aqueous vapour increases the volume and acts as a carrier of the disinfectant fumes and brings them into intimate contact with the articles and things to be disinfected.

As instances of solid disinfectants that may be employed in connection with such an appliance as is herein described, corrosive sublimate and paraformaldehyde may be named, these substances are admixed with the plaster of Paris in the form of powder and then converted into a solid block by setting with water in the usual way, or in the case of perchloride of mercury that substance may if preferred be first of all dissolved in water and the liquid thus prepared be then employed for mixing with the plaster of Paris. This last method however is not practicable in the case of paraform because that substance is not appreciably soluble in water. As instances of liquid disinfectancts that may be employed there may be named formic aldehyde in aqueous solution, "Sanitas" oil, and liquid carbolic acid.

The apparatus consists of a framework *a*, or it might be a cage of metal wire or gauze or the like, having at its bottom a lamp *b*, above which is supported the block of absorbent material *c*, which is preferably contained in a metal tray or basin *d*. Above the block is a vessel *e*, containing water or other liquid, and provided with small holes, wicks or other appliances, to allow the liquid to slowly drip onto the upper surface of the block.

The appliance shown in the drawing consists of a small hole in the bottom of the vessel through which passes a short length of corrugated or other wire *f* plain, or covered preferably with some sort of fibrous material, such as silk or cotton. The use of a wire (plain or covered) in this manner assists in the regulation of the drip.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:—

1. The use of an absorbent solid block such as a casting of plaster of Paris in combination with solid or liquid disinfectants from which combinations the disinfectant or active principle is generated by means of applied heat.

2. The combination of an absorbent block, a drip apparatus, and a source of heat, so arranged that water or disinfectant liquid may flow or drip from the said vessel containing it upon the solid absorbent block to which heat is applied for the purpose of generating and diffusing disinfectant vapours.

3. Fumigators or disinfecting contrivances substantially as described and illustrated in the drawing.

Dated this 30th day of May 1901.

C. T. KINGZETT.

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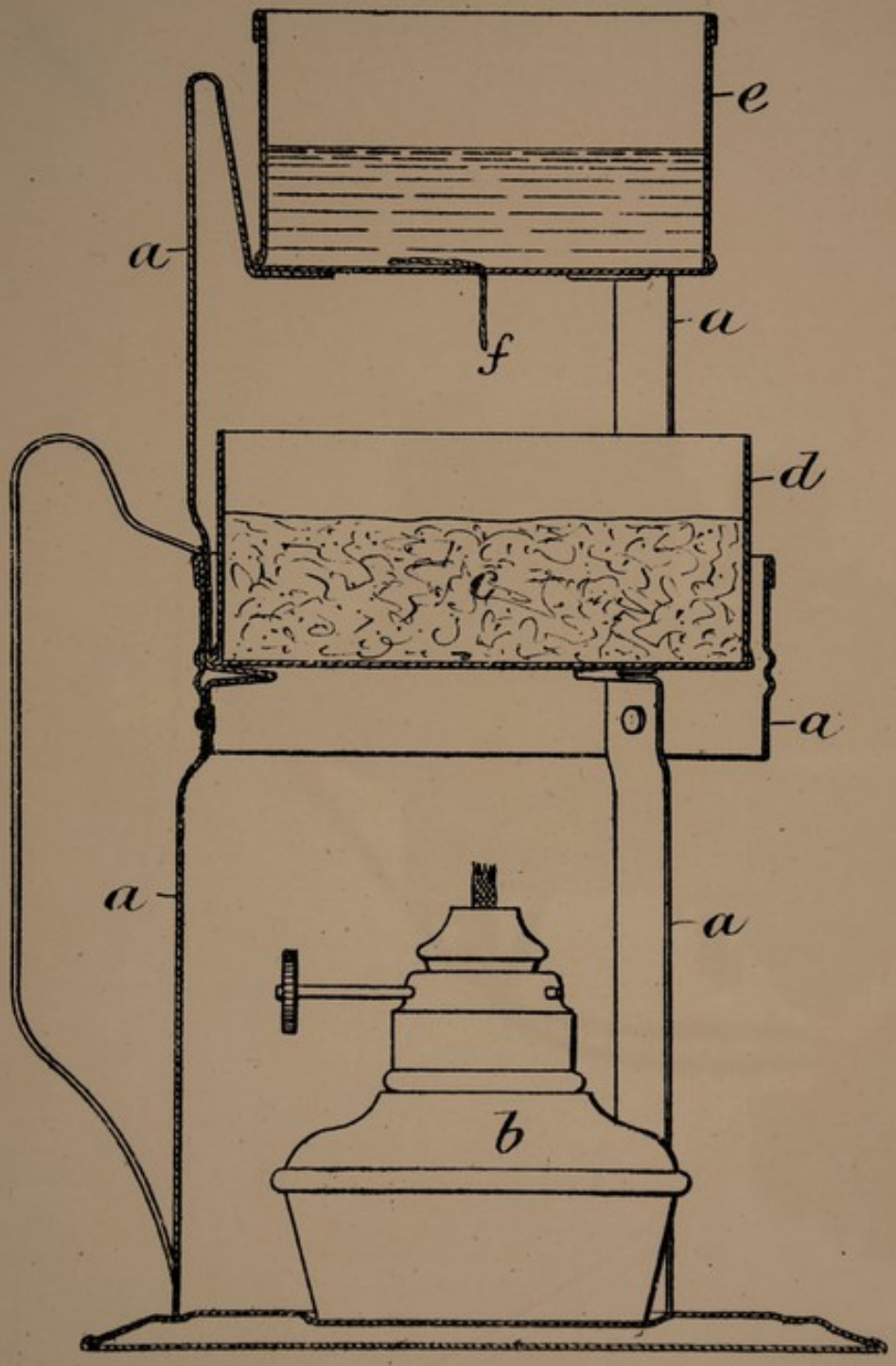
KINGZETT'S Complete Specification. *(1 SHEET)*



[This Drawing is a full-size reproduction of the Original.]

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