Sept. 26, 1961 E. HEINZIG 3,002,080

ELECTRIC VAPORIZER FOR DISINFECTANT, INSECTICIDAL OR OTHER SUBSTANCES

Filed Feb. 24, 1960 2 Sheets-Sheet 1

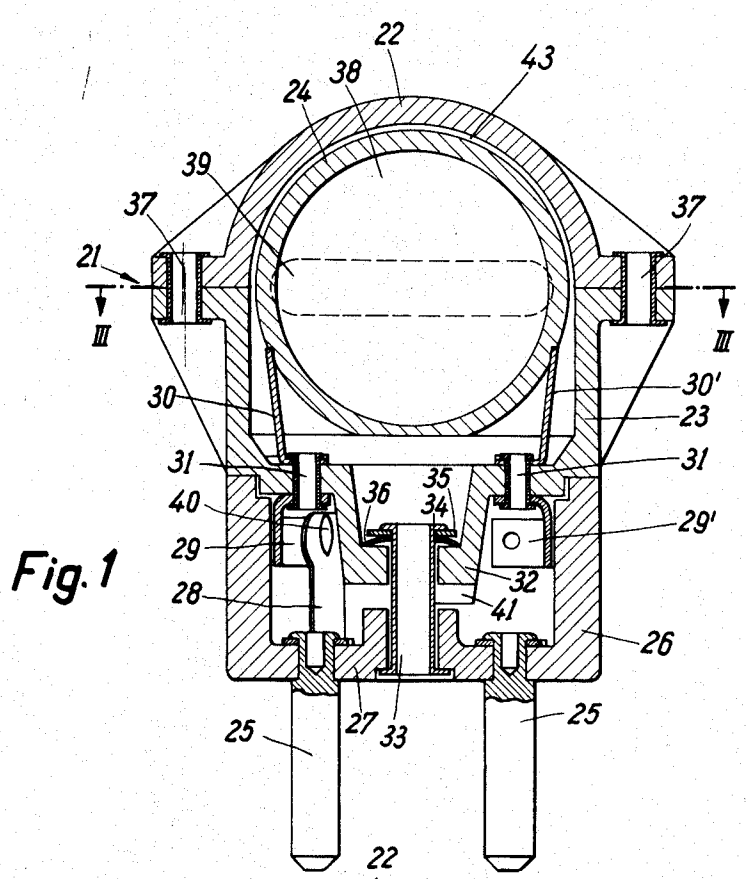


Fig. 1

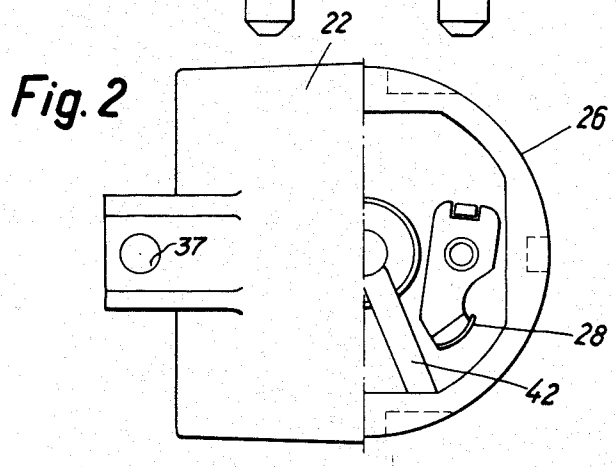


Fig. 2

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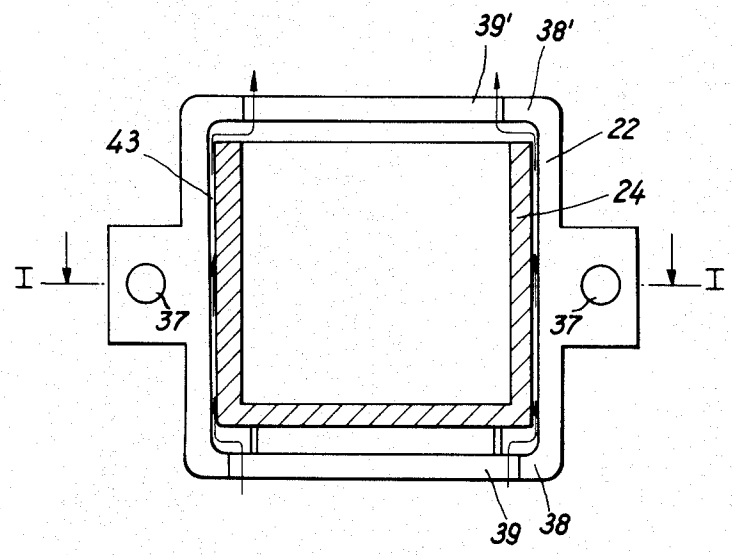


Fig. 3

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3,002,080

ELECTRIC VAPORIZER FOR DISINFECTANT, INSECTICIDAL OR OTHER SUBSTANCES

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Filed Feb. 24, 1960, Ser. No. 10,678
Claims priority, application Germany Aug. 10, 1956
1 Claim. (Cl. 219—43)

This application is a continuation-in-part of my application Serial No. 641,127 filed February 19, 1957, now abandoned.

The invention relates to an electric vaporizer for disinfectant, insecticidal or other substances.

The object of my invention is to improve the familiar electrical vaporizers and particularly to make the same usable optionally, for vaporising disinfectant, insecticidal or smelling substances. This has not been possible with known vaporizers since the inherent smell of disinfectants or insecticides was such that it was retained by the device and the same could not be used again for vaporizing smelling substances to improve the atmosphere.

To this end the electric vaporizer according to the invention comprises in combination a top-open and substantially cylindrical vaporizing vessel made of ceramic material; a housing made of insulating material and completely encasing said vessel; said housing and said vessel arranged to leave an air passageway therebetween; said housing being composed of a first and a second component contacting each other in a division plane passing through the longitudinal axis of said vessel; an opening each in the top wall and in the bottom wall of said housing communicating with said passageway to permit cooling air to pass therethrough and along the outer surface of said vessel; an electric heating spiral upon said vessel; a cupshaped socket rotatably attached to the second component of said housing and extending therefrom with its longitudinal axis perpendicular to said division plane; a pair of contact plugs mounted in the bottom of said socket and extending outwardly therefrom perpendicular to said division plane; two pairs of sliding contacts each composed of a stationary contact member attached to said second housing component and electrically connected to said heating spiral, and of a sliding contact member attached to said socket and electrically connected to one of said plugs; said sliding contact member adapted to slide upon said stationary contact member when said cupshaped socket is rotatably displaced; and depressions in said stationary contact member and projections on said sliding contact member adapted to engage each other and thus to define the position of said plugs relative to said housing.

The invention will be further described with reference to the accompanying drawing illustrating an embodiment of the invention.

In the drawing:

FIG. 1 shows a horizontal sectional view of my new device taken along line I—I in FIG. 3;

FIG. 2 a plan view of FIGURE 1 with the housing half removed, and

FIG. 3 shows a vertical sectional view taken along line III—III in FIG. 1.

The vaporizer illustrated in FIGURES 1 to 3 comprises a housing 21 made up of a bowl 22 and a bowl 23. Fitted inside housing 21 is a cylindrical vaporizer

jar 24 made of heat-resistant material and provided with an electric heating spiral which, in a manner which will be described more fully hereinafter, is connected, via a sliding contact line, to plug pins 25. The sliding contact line is encased in a cylindrical, jar-type housing 26. In base 27 of this housing 26 plug pins 25 are riveted-in together with flexible sliding contacts 28. On bowl 23 are ring-segment shaped slide-runs 29 and 29' which project into said housing 26 and against which, spring-tensioned, lean the sliding contacts 28. Slide-runs 29, 29' are conductively connected with conductor lugs 30, 30' located on the inside of bowl 23 by means of hollow rivet 31, the conductor lugs themselves being connected to the electric heating winding of vaporizer jar 24.

The above described housing 26 with its plug pins 25 is connected to bowl 23 in such a manner that it can be turned about a central axis running midway between the plug pins 25 and parallel to them. Serving as connection element is a hollow rivet 33 which penetrates through base 27 of housing 26 and base 32 of bowl 23; head 34 of rivet 33 is within bowl 23 supported by a washer 35 which, in turn, rests on a spring washer 36. Under the action of the spring washer 36 the rotatable housing 26 is drawn firmly against bowl 23.

The bowl 22 is of semi-cylindrical shape and connected to bowl 23 by means of hollow rivets 37, the separating surface of bowls 22, 23 respectively passing through the centre of vaporizing jar 24 and lying vertical to the plug pins 25. Housing 21, which is closed on all sides, has, in bottom wall 38 an opening 39 in its top wall an opening 39', the openings 39, 39' (FIG. 3) permitting cooling air to pass through the existing passageway 43 between bowl 22 and jar 24 as indicated by the arrows, in order to effect an intensive cooling of the jar and an effective out-flow of the vaporized substances into the atmosphere.

In order to fix the position of plug pins 25 in relation to the vertical axis of the housing 21, indentations (not illustrated) are provided in slide-runs 29, 29' into which the sliding contacts 28 engage with their projections 40. As an additional measure stops 41 and 42 respectively can be provided on bowl 23 and on the sliding contact line housing 26.

It is not intended that the invention be limited in scope to the examples of execution illustrated and described. Alterations are possible without departing from the principles underlying the invention.

What I claim is:

In an electric vaporizer for disinfectant, insecticidal or other substances the improvement comprising a top-open and substantially cylindrical vaporizing vessel made of ceramic material; a housing made of insulating material and completely encasing said vessel; said housing and said vessel arranged to leave an air passageway therebetween; said housing being composed of a first and a second component contacting each other in a division plane passing through the longitudinal axis of said vessel; an opening each in the top wall and in the bottom wall of said housing permitting cooling air to pass therethrough and along the outer surface of said vessel; an electric heating spiral upon said vessel; a cupshaped socket rotatably attached to the second component of said housing and extending therefrom with its longitudinal axis perpendicular to said division plane; a pair of contact plugs

mounted in the bottom of said socket and extending outwardly therefrom perpendicular to said division plane; two pairs of sliding contacts each composed of a stationary contact member attached to said second housing component and electrically connected to said heating spiral, and of a sliding contact member attached to said socket and electrically connected to one of said plugs; said sliding contact member adapted to slide upon said stationary contact member when said cupshaped socket is rotatably displaced; and depressions in said stationary contact member and projections on said sliding contact member adapted to engage each other and thus to define the position of said plugs relative to said housing.

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