

[54] GERMICIDAL TOILETRY CABINET FOR DIFFERENT PERSONAL HYGIENE ITEMS

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[58] Field of Search 21/102 R, DIG. 2, 21/83, 88, 54 R, 53, 74 R, 74 A, 105; 312/206, 209

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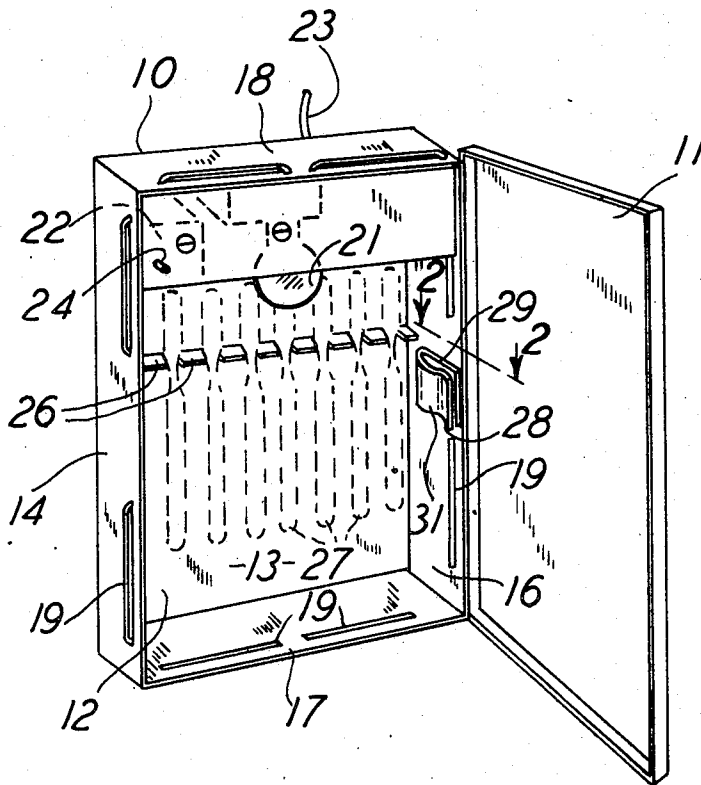
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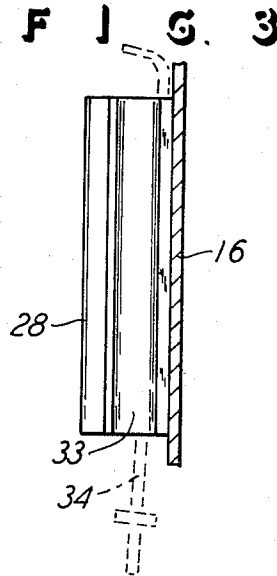
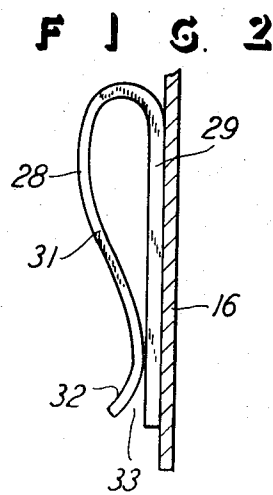
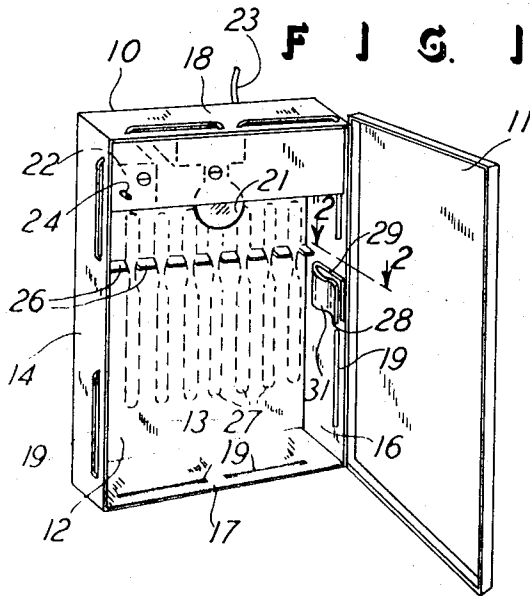
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[57] ABSTRACT

A cabinet housing having a swingable door and an electric switch actuated by the door and an electric lamp disposed within the housing. The housing has openings for the emission of rays of light, and the lamp is actuated by opening and closing the door. A tooth brush rack is mounted in the housing, and another support member, for tooth water picks, combs, and the like, is also mounted in the housing for receiving these other items, all for sterilization of the tooth brushes and water picks and like items, by the action of the germicidal lamp, a unitary piece extends through the width of the cabinet at the top thereof and provides the rack, and a bracket is affixed to the unitary piece and supports the electric switch and shields the electric switch from being approached exteriorly of the switch.

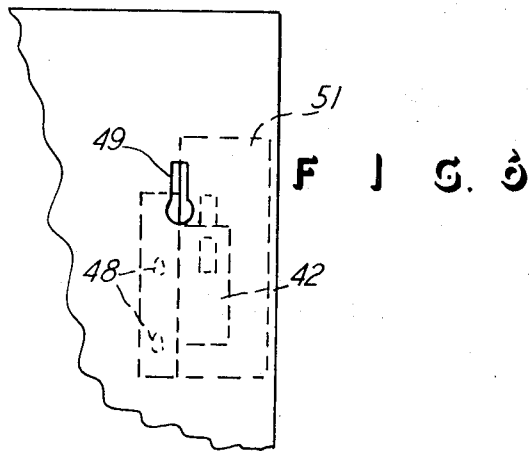
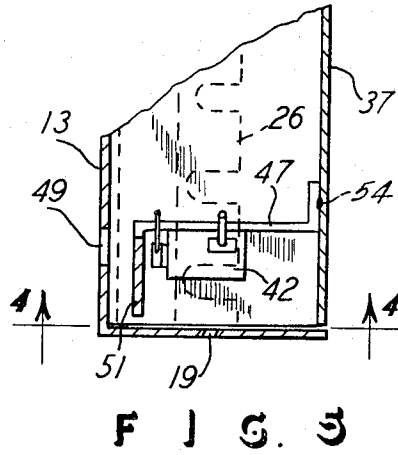
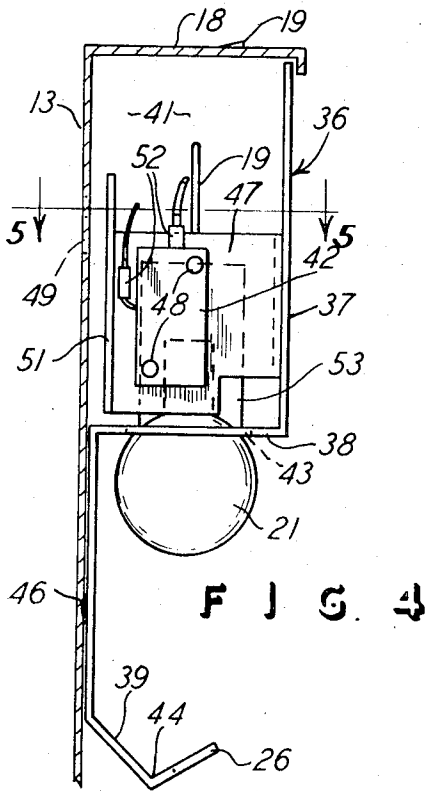
6 Claims, 6 Drawing Figures





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GERMICIDAL TOILETRY CABINET FOR DIFFERENT PERSONAL HYGIENE ITEMS

This invention relates to a germicidal toiletry cabinet for different personal hygiene items. This application is a continuation-in-part of my U. S. Pat. application Ser. No. 38,321 filed May 18, 1970, and now abandoned.

BACKGROUND OF THE INVENTION

Germicidal cabinets for receiving and sterilizing tooth brushes and like items of personal hygiene are not completely novel. That is, it is known that a germicidal cabinet can be provided for sterilizing various items of use in personal hygiene. However, the cabinets heretofore known are commonly limited to receiving and supporting one type of item, such as a tooth brush, and they are not conveniently and appropriately arranged for receiving different items, such as tooth brushes, water picks, combs, and the like. Still further, the germicidal cabinets heretofore known do not act in a combined fashion for sterilizing the items inside the cabinet while at the same time deodorizing the air surrounding the cabinet and at the same time serving as a night light for constant illumination, all while the cabinet is arranged for receiving and supporting a multiplicity of items for use in personal hygiene.

Accordingly, it is a general object of this invention to provide a cabinet which will overcome the limitations of the aforementioned cabinets of the prior art. Still further, it is an object of this invention to provide a germicidal toiletry cabinet which is specifically arranged to receive two or more different types of items for use in personal hygiene, such as a tooth brush and a tooth water pick.

A more specific object of this invention is to provide a germicidal cabinet which is specially arranged to receive tooth brushes and water picks, and which has openings in the cabinet for ventilating the cabinet for drying the items therein. Also, in accomplishing the object of accommodating tooth brushes and tooth water picks, the cabinet is arranged with support members which make it ready and easy for the user to insert or remove the tooth brushes and the water picks.

Another object of this invention is to provide a germicidal cabinet which is easily manufactured in the provision of the rack for supporting tooth brushes or the like, and which is easily assembled and provides a sturdy structure. In accomplishing this object, a unitary piece extends through the upper portion of the bracket to provide a housing for the electrical parts, and the lower portion of the bent piece presents the rack for the tooth brushes and the like.

Another object is to provide a germicidal cabinet which is arranged in a manner to protect against electric shock and to provide secure and safe mounting for the electric parts, particularly the electric switch.

Other objects and advantages will become apparent upon reading the disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front perspective view of a preferred embodiment of this invention.

FIG. 2 is an enlarged sectional view taken on the line 2—2 of FIG. 1.

FIG. 3 is a front view of FIG. 2, and with the view showing a water pick in dotted lines.

FIG. 4 is an enlarged sectional view of a cabinet similar to that shown in FIG. 1 but showing one arrangement for the interior structure of the cabinet, and with the view being sectional and taken along the line 4—4 of FIG. 5.

FIG. 5 is a sectional view taken along the line 5—5 of FIG. 4.

FIG. 6 is a rear elevational view of a fragment of the cabinet shown in FIGS. 4 and 5.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The cabinet includes a box-shaped housing 10 and a cover or door 11 which is suitably, pivotally, or swingably mounted on the housing 10 to open and close relative to the housing front opening designated 12. The housing 10 has a back or bottom wall 13, and it has two side walls 14 and 16, and the housing 10 also has a bottom wall 17 and a top wall 18. Further, the housing 10 has openings 19 on the walls described, and these openings permit the passage of light rays, and they also permit the ventilation of the cabinet and they further permit the drainage of any water.

A germicidal lamp 21 is mounted in the cabinet 10 and is suitably electrically connected with a switch designated 22, and, an electric wire 23 is shown extending to the cabinet for supplying electric power, in a suitable and well-known manner. The switch 22 is shown to have a plunger 24 which is moved by the opening and closing of the door 11 over the cabinet front opening 12. That is, the plunger 24 will abut the door 11 when the door is in the closed position. When the plunger 24 is depressed by the closed door, the switch 22 is then electrically closed and electric power is then being supplied to the lamp 21, for the sterilization of the interior of the cabinet, and sterilization of all items disposed within the cabinet.

A tooth brush rack is mounted in the cabinet, and fingers 26 are included in the rack and are shown extending from the rear wall 13 to be supporting the tooth brushes 27 which are shown in dotted lines. Each tooth brush is supported in a position spaced-apart from the other tooth brushes, just as the fingers 26 are spaced apart in a common and well-known arrangement of rack having fingers 26 and spaces therebetween.

An important feature of this invention is the provision of a support member 28 which is fixedly mounted on the cabinet, and FIG. 1 shows the member 28 to be on the wall 16 adjacent the rack or fingers 26. The support member 28 is shown to be in the form of a spring clip having a planar base piece 29 and having a continuously extending leg 31 which presents the spring action to the spring clip 28. The leg 31 has an extending end portion 32 which presents a space 33 relative to the base portion 29. With this arrangement, the user can readily insert and withdraw items of personal hygiene, such as the water pick 34 shown in dotted lines in FIG. 3. That is, water pick 34 can be inserted between the clip leg 31 and the clip base portion 29, and, in fact, a plurality of the picks 34 can be so inserted at any one time within the clip 28. The clip 28 is shown adjacent one of the cabinet openings 19, and thus the tooth water picks 34 can be readily dried, ventilated, as well as being sterilized, by the arrangement of the cabinet being described.

With the structure described, it will therefore be understood that a germicidal cabinet is provided, and, the

cabinet accommodates different items of personal hygiene, not only one type of item, such as a tooth brush. Also, the clip 28 is disposed in a position which spaces the water picks from the tooth brushes, and which permits the picks to be readily inserted or withdrawn without intricate maneuvering to avoid the tooth brushes, and, still further, the picks can be withdrawn downwardly from the clip 28, without disturbing the other picks 34 which remain held in the clip 28, and this is by virtue of the spring action of the clip. Still further, the entire unit serves as a combined germicidal cabinet, room deodorizer, and night light.

It will also be understood that there is the arrangement with the relationship between the rack 26 and the clip 28 such that the clip 28 is located closer to the front opening of the box 10, that is, it is closer to the closed door 11, relative to the rearward location of the rack 26 which is on the rear wall 13. Therefore, the tooth brush 27 immediately adjacent the clip 28 does not interfere with or block access to the clip 28, and the user can insert and withdrawn items supported in the clip 28 without moving the tooth brushes or without being hindered by their presence on the rack 26. Further, the drawings show that the lamp 21 is small and spherically shaped and is in the same cabinet space where the rack 26 and clip 28 are located. Thus the rays from the lamp 21 fall directly onto the brushes 27 and the items in clip 28. The clip 28, being located below the level of the rack 26, avoids bumping the brushes 27 when the clip is used, and vice versa, and the rack 26 extends in its planar disposition of fingers 26 for the full width of the cabinet. Also, the clip 28 is located frontwardly of the rack 26, so the clip and the items therein are in the path of direct rays from the lamp 21.

FIGS. 4, 5 and 6 show the arrangement of the interior of the cabinet 10 in that it shows the back wall 13 and the top 18, and it details an upper piece 36 which is bent in the shape shown in FIG. 4 and which extends across the width of the cabinet, as the piece is seen in FIG. 1 adjacent the lamp 21. The piece 36 therefore has a front wall 37 and a horizontally extending intermediate portion 38 and it has a lower rack 39 which presents the rack pieces 26 seen in FIG. 1. The portions 37 and 38, along with the cabinet top 18 and a part of the cabinet back 13 form a compartment designated 41, and this compartment contains the electrical parts of the cabinet. Thus, FIG. 4 shows the electric switch 42 disposed within the compartment 41, and the bulb 21 is also mounted within the compartment 41 and extends therefrom through an opening 43 in the floor portion 38.

Thus, the piece 36 is made from one piece (unitary) in bent form and it provides for the enclosing of the electrical parts and it also presents the rack 26. Further, the piece lower portion 39 is angulated as shown in FIG. 4 to present a trough 44 on which items can be supported, such as a thermometer, for the sterilizing function. Also, the portion 39 has the upturned end in the rack 26, so the tooth brushes 27 can be hung on the rack 26 in a secure manner for easy placement and removal relative to the rack 26.

The piece 36 and the cabinet itself can be secured together by spot welding or the like, and such welding is indicated at the location designated 46 which is adjacent the portion of the piece 36 intermediate the portions 38 and 39, and this is all that is required in the as-

sembly and fastening of the two parts, and thus the cabinet is securely made in a sturdy construction and the compartment 41 is presented in the arrangement described.

A Z-shaped bracket 47 is disposed within the compartment 41 and it has the switch 42 mounted thereon, such as by the means of the rivets 48. The bracket 47 is also shown to be attached to the piece 36 by means of the spot welding, such as that indicated at 54 in FIG. 5, and FIG. 6. Thus, the bracket 47 is readily and easily fastened in a secure manner for supporting the switch 42 and for covering a cabinet mounting opening 49 in the cabinet back wall 13. This is, the bracket 47 has a branch 51 which extends along the side of the switch 42 and above and below the level of the switch 42, as seen in FIGS. 4 and 6, and the branch 51 thus intervenes between the cabinet mounting opening 49 and the switch 42. In this manner, the cabinet can be mounted, say on a metal screw and by means of the key-hole shaped opening 49, but there is no danger of having the mounting screw contact the switch 42, because of the intervening protector 51. Further, one cannot insert a screwdriver or any other object into the hole 49 and touch the switch 42. Therefore, the Z-bracket 47 serves as a mounting bracket and also serves as a safety device. The switch 42 has conventional electric connectors 52 which are therefore shielded by the branch 51 from any object being inserted through the opening 49, as mentioned.

With the arrangement described, a germicidal cabinet is provided in an arrangement which is easily manufactured but yet one which is sturdy in that the piece 36 serves as a structural piece and as an enclosure for the electrical parts, from the safety standpoint, and it also presents the rack 26. Thus, with the rack 26 shaped as described and particularly as seen in FIG. 4, tooth brushes 27 can be supported on the rack 26 at the same time that thermometers, hair pins, razors, or like elongated items can be resting in the rack trough 44, and all items are directly exposed to the rays from the bulb 21. Also, the upper portion of the piece 36 encloses the upper end of the cabinet and presents the compartment 41, but, the cabinet has the upper side louvers 19 which extend through the cabinet side walls 14 and 16 adjacent the compartment 41. Therefore, the compartment 41 is open to outside air and the heat generated by the electric parts within the compartment 41 can be dissipated and circulated through the louvers 19. Thus, air can actually enter the lower louvers 19, be circulated through the cabinet and be exhausted through the upper louvers 19, all under the heat from the lamp 21, and such air is sterilized in the process. A lamp ballast is of course disposed within the compartment 41 for energizing the lamp 21, and the ballast generates heat which enhances the air flow mentioned, and, the air will also flow out the louvers 19 on the cabinet top 18. Thus the ambient air is sterilized and deodorized by the cabinet and the air flow generated by the lamp 21 and the ballast 53, as described. In the air flow pattern, the air can move upwardly through the lamp opening 43. Also, the bracket 47 forms a small compartment for the enclosure of the switch 42, and of course the switch is at the side of the cabinet, as shown at 24 in FIG. 1, for optimum positioning of the switch. Likewise, the mounting opening 49 is at the side of the cabinet, and thus the arrangement of the Z-bracket 47

for mounting the switch and for shielding it from access through the opening 49 is significant.

What is claimed is:

1. A germicidal cabinet for receiving and sterilizing various personal hygiene items including tooth brushes, comprising a cabinet housing including a back wall and opposite side walls and a top wall and a bottom wall and having an open front opposite said back wall and defined by all the other said walls, a door hinged onto said housing for swinging movement on said housing for closing over said open front of said housing, a unitary piece attached to said cabinet and disposed therein and having a first portion extending through the upper portion of said cabinet from adjacent said top wall and along said open front in a location spaced from said back wall to form a compartment with said top wall and said back wall, said first portion of said unitary piece including a horizontally extending portion spanning the space to said back wall and closing off the base of said compartment and with said horizontally extending portion having an opening therein, and said unitary piece including a second portion extending along said rear wall and being attached thereto, and said unitary piece including a third portion terminating in an end extending away from said rear wall and across the central axis of said opening and into the center of said cabinet, a tooth brush rack included in said extending end of said third portion and being spaced from said horizontally extending portion and extending between said opposite side walls for the entire width of said cabinet for suspendingly supporting tooth brushes in said cabinet, an electric switch and an electric ballast disposed in said compartment, and a germicidal lamp electrically connected to said switch and extending into said com-

partment through said opening in said unitary piece horizontally extending portion and being positioned spaced above said rack and being removable through said opening for replacement of said lamp.

2. The germicidal cabinet as claimed in claim 1, wherein said opposite side walls and said top wall have louvers therein opening into said compartment for flow of air through said compartment and out of said cabinet.

3. The germicidal cabinet as claimed in claim 1, including a bracket attached to said unitary piece and disposed within said compartment, and said switch being mounted on said bracket and disposed to be actuated by swinging movement of said door.

4. The germicidal cabinet as claimed in claim 3, wherein said cabinet has a hole in said rear wall adjacent each said opposite side wall for mounting said cabinet, and said bracket has a portion extending across a line extending from said switch to the nearer one of said holes, to shield against access to said switch through said hole.

5. The germicidal cabinet as claimed in claim 1, wherein said extending end of said third portion is bent upwardly and terminates with said rack being at the terminal end thereof, and the upward bend being located directly beneath said lamp and arranged to present a trough for the reception of items to be sterilized.

6. The germicidal cabinet as claimed in claim 5, including a support member mounted on one of said opposite side walls at a location below the level of said rack and frontwardly of said rack and being spaced from said back wall, for supporting an item in the path of direct rays from said lamp.

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