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3,433,579

STERILIZER CABINET

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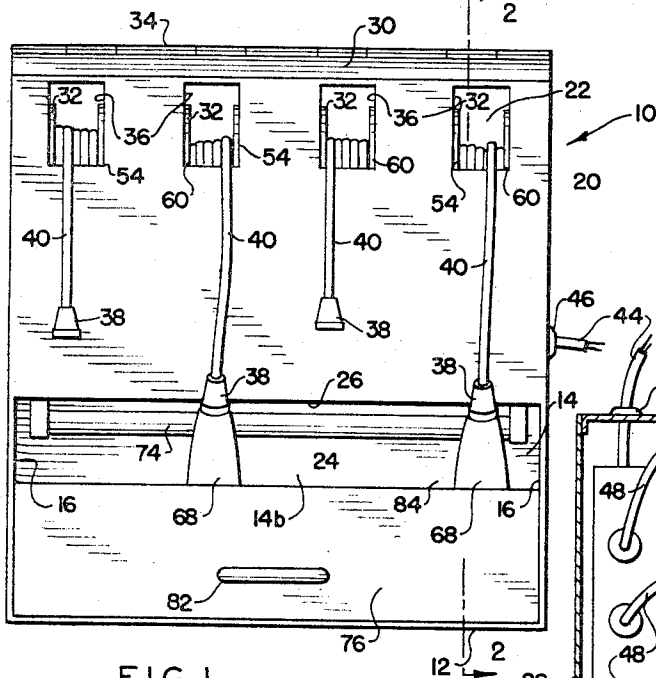


FIG. 1.

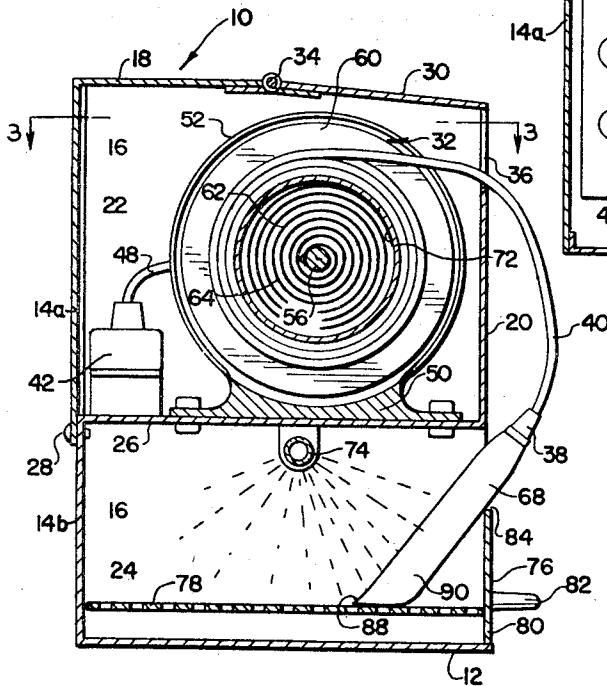


FIG. 2.

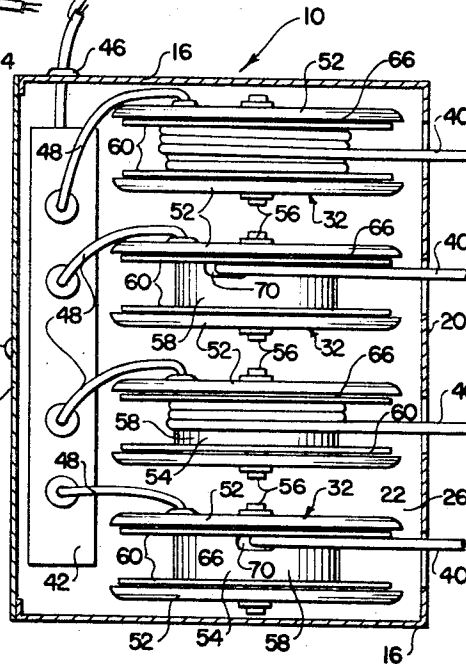


FIG. 3.

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STERILIZER CABINET

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5 Claims

ABSTRACT OF THE DISCLOSURE

Sterilizer cabinet having a superimposed compartment above the sterilization compartment containing a plurality of reaved power cords adapted to pass out of the compartment through suitably located openings onto the outside of the cabinet where they remain permanently attached to an appliance, and immediately beneath the cord-reel compartment is an opening communicating the interior of the sterilization compartment through which the functional portions of the appliances are passed to receive ultraviolet radiation.

Small sterilizer cabinets containing a compartment for combs and similar cordless articles are widely used in today's barber shops. These units are customarily equipped with an ultraviolet lamp which shines upon the articles to be sterilized. These cabinets are, however, ill-suited for use in sterilizing the many barbering appliances that carry power cords attached thereto.

In some cabinets, the sterilizing compartment is too small to receive the clippers and similar electrically-powered units such as, for example, the vibrators and massaging tools. About the only way these cabinets can be used is to demount the cutter heads, massage pads and the like from the power unit before placing them in the sterilizing chamber. This, of course, is a time-consuming operation and there is always the risk of dropping the appliance while removing or attaching the head.

The larger sterilizers are of a size to accept some of the electrically-operated devices but, oftentimes, the power cords must first be unplugged therefrom due to the remote location of the nearest electrical outlet. This, of course, leaves the cords lying around loose where the barber can trip over them. Sweeping also becomes a problem and this operation is performed many times a day in a well-run shop. Here again, the barber is faced with the necessity of continually plugging and unplugging the power cords, perhaps several times during each haircut. He may even have to stoop over and separate the cord lying on the floor from the hair that has fallen thereon. All in all, this is a most unsanitary and unsatisfying procedure.

Even those cabinets in which the power cords can be left attached to the appliance are not without their problems. The cords dangle from the appliance and are strung various places behind the barber chair producing a most unsightly appearance. These cords are easily snagged as the barber moves around behind his customer or removes and replaces adjacent tools. When this occurs, the appliance is usually pulled out of the sterilizer and falls on the floor where it is broken, bent or otherwise damaged.

It has now been found in accordance with the teaching of the instant invention these and other problems can be eliminated through the use of a novel and improved sterilizer cabinet that employs a superimposed compartment above the sterilization compartment. This second compartment is equipped with at least one, and preferably several, spring-wound power cord reels arranged in side-by-side relation but operable independent of one another. The plug-in ends of the power cords reaved on these reels pass out through suitably located openings onto

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the outside of the cabinet where they remain permanently attached to a particular appliance.

Immediately beneath the cord-reel compartment is an opening communicating the interior of the sterilization compartment through which the functional portions of the appliances are passed to be cleansed of bacteria under the influence of ultra-violet radiation. This lower compartment is equipped with a drawer having a false bottom covered with apertures which will allow the hair clippings to pass therethrough and out of sight. The drawer is removable for cleaning.

When a particular appliance is needed, it is merely withdrawn from the sterilization compartment and the cord unwound from the reel so far as is necessary to place the appliance in position for use on the customer's hair. As it is returned to the cabinet, the cord automatically rewinds onto the reel and is stored out of the way until needed again.

The sterilization drawer or tray can also be used for sterilization of cordless tools such as, for example, scissors, combs, extra cutter heads, etc. In its simplest form, the cabinet can be adapted for use in the home as a cord-storage and sterilization unit for an electric razor.

It is, therefore, the principal object of the present invention to provide a novel and improved sterilization cabinet for cord-carrying barbering tools and the like.

A second objective of the invention herein disclosed and claimed is to provide a unit of the type aforementioned that includes one or more self-winding appliance cord storage reels.

Another object of the invention is the provision of a sterilizer cabinet wherein the electrical cords can be left attached to a particular appliance at all times.

Still another objective is to provide a combination sterilizing and cord storage unit for various hand-held electrical appliances of the type that are placed in contact with the human body.

An additional object is to produce a unit for temporary storage and sterilization of electric hand-tools that eliminates the problem of twisted, tangled and broken power cords while keeping them substantially out of sight.

Further objects of the invention forming the subject matter hereof are to provide a cabinet of the class described that is neat, compact, rugged, inexpensive, convenient to use, versatile and decorative in appearance.

Other objects will be in part apparent and in part pointed out specifically hereinafter in connection with the description of the drawings that follows, and in which:

FIGURE 1 is a front elevation of the combination cord-storage and sterilization cabinet of the present invention showing two electric hair clippers attached to power cords and placed in the ultraviolet-lighted compartment;

FIGURE 2 is a vertical section taken parallel to one end wall revealing the self-retracting reels, the antibacterial light, a hair clipper and the removable false-bottomed drawer of the sterilization compartment; and,

FIGURE 3 is a horizontal section taken along line 3—3 of FIGURE 2 showing a plurality of the cord-carrying reels mounted in side-by-side relation in the upper compartment.

Referring now to the drawings for a detailed description of the present invention, it will be seen that the cabinet which has been broadly designated by reference numeral 10 is, in the particular form illustrated, substantially box-shaped having a bottom 12, a rear wall 14, sidewalls 16, a partial top wall 18 and a partial front wall 20. Dividing the cabinet into upper and lower compartments 22 and 24, respectively, is horizontal partition 26 that connects the lower margin of front partial wall 20 with the rear wall 14. In the particular construction illustrated, rear wall 14 is divided into upper and lower sections 14a and 14b, the latter section being joined integrally to bottom 12

and partition 26. Upper section 14a, on the other hand, is bolted or otherwise fastened to the lower section as shown at 28 and it is integrally joined to partial top wall 18. This construction enables the upper section 14a of the rear wall and the top wall 18, together with the hinged lid 30, to be removed as a unit so as to open the upper compartment 22 to receive the self-retracting reels 32.

Lid 30 covers the front half of the upper reel compartment 22 and is hingedly attached to the front edge of partial top wall 18 by a piano-type hinge 34. The front edge of the lid rests upon the top margin of front wall 20 covering the upwardly opening notches 36 therein through which the plug-ends 38 of the power cords 40 wound on the reels 32 pass. Lifting lid 30, of course, provides ready access to the reel compartment for minor repairs should such become necessary.

Mounted on partition wall 26 at the rear of the reel compartment paralleling rear wall section 14a is an elongate junction box 42 fed by a supply cord 44 emerging through one of the sidewalls 16 and protected from damage by a conventional grommet 46. This single supply cord is, of course, plugged into a conveniently located wall plug (not shown). Inside the junction box 42, each of four jumper cords 48 are wired to the common supply cord 44 and feed power to their respective appliance through cords 40. These reels are of conventional design and include a base 50 bolted to the partition 26 ahead of the junction box 42 in side-by-side transversely spaced parallel relation to one another as shown. Formed integral with each base 50 are a pair of upstanding disk-shaped stationary flanges 52 arranged in spaced parallel relation to one another so as to define an area therebetween adapted to receive the rotating element 54 of the reel. Spanning the gap between stationary flanges 52 is an axle 56 upon which the rotating element or drum 54 is journaled for rotation.

Drum 54 has a cylindrical hub 58 bounded on both sides by disk-shaped flanges 60 that turn on the axle 56. The hub 58 surrounds axle 56 in spaced rotation thereto leaving annular cavity 62 (FIGURE 2) which contains the coiled rewind spring 64. The jumper cords 48 terminate inside the stationary flanges 52 in a brush-type contact (not shown) which is suitably insulated from the adjoining stationary flange. The rotatable drum flange 60 nearest said contact carries a slip ring 66 (FIGURE 3) which slides over the brush contact as the drum turns and delivers electrical energy to the appliance 68 through power cord 40, the latter being electrically connected to the slip ring inside the hub. Drums 54 are, of course, insulated from the slip ring or else formed from some dielectric material. The power cords 40 emerge onto the surface of the drums through slots 70 in the hubs. A central wall 72 (FIGURE 2) inside the drum is often used to separate the spring cavity 62 from the adjoining compartment containing the electrical connections, i.e., the slip ring and power cord electrical connection.

The coil spring 64 has its inner end dead-ended on the axle and its outer end similarly attached to the drum hub. This spring is prewound to fully retract the power cords 40 onto the drums. When an appliance is in use, these springs keep all slack out of the power cords but, nevertheless, permit free use thereof.

Before proceeding it should, perhaps, be mentioned that the above-described reel is but one example of several commercially-available self-retracting power cord reels that could be substituted with equally good results. The requirements are, of course, a self-retracting reel having means for transmitting electrical power to the power cord while allowing the latter to wind and unwind from the drums.

Next, in the lower compartment 24, a laterally extending germicidal lamp 74 is mounted underneath partition 26 and wired to receive electrical energy from the junction box 42. This lamp is usually of the ultraviolet type

adapted to kill bacteria by means of ultraviolet radiation. Any electrical appliance 68, together with nonelectrical tools like scissors, combs, cutter heads, etc., may be placed in the lower compartment in the path of the light from the lamp and sterilized as is common practice among barbers and beauticians.

The remaining feature which should be described in some detail is drawer 76 shown only in FIGURES 1 and 2 to which reference will now be made. A perforated tray 78 mounted in spaced relation above the cabinet bottom 12 for horizontal sliding movement on suitable guides (not shown) provides a false bottom for the cabinet through which hair clippings and the like can pass leaving the cabinet apparently free thereof. The clippings obviously drop down onto the true bottom 12 of the cabinet where they are easily disposed of once the drawer is removed.

The drawer includes a coverplate 80 equipped with a handle 82 with which to slide the tray out of compartment 24. The upper margin of the coverplate terminates well beneath partial front wall 20 to define a horizontal slot 84 through which the appliances and their power cords are inserted and removed. Actually, these appliances are preferably placed as shown in FIGURE 2 such that the cutter heads 88 or similar functional elements rest on the tray 78 while the case 90 rests in inclined relation on the edge of the coverplate partly on the outside of the cabinet. It is best to open the drawer slightly to insert and remove items from the sterilization compartment 24.

Having thus described the several useful and novel features of the combination cord-storage and sterilization cabinet of the present invention, it will be seen that the several worthwhile objectives for which it was designed have been achieved. Although but a single specific embodiment of the invention has been illustrated, I realize that certain changes and modifications therein may well occur to those skilled in the art within the broad teaching hereof; hence, it is my intention that the scope of protection afforded hereby shall be limited only insofar as said limitations are expressly set forth in the appended claims.

What is claimed is:

1. A storage cabinet for electrically operated barbering tools and the like which comprises: a box-like structure having a horizontally disposed partition wall located intermediate the top and bottom dividing the interior into upper and lower compartments, an ultraviolet sterilizing lamp located in the lower compartment in position to shine upon the contents thereof, at least one self-retracting power cord reel mounted in the upper compartment, said reel providing means for storing a power cord attached to an electrically operated appliance while said appliance is positioned in the lower compartment being sterilized; and, a drawer is mounted for slidable movement in the lower compartment, said drawer including a faceplate on the front thereof extending from the bottom upwardly to a position where the upper margin thereof terminates short of the partition so as to leave a transverse slot in the front adapted to pass the power cords of an appliance within said lower compartment out and into said upper compartment while said drawer is closed, and said drawer including a horizontally disposed perforated tray supported in spaced relation above the bottom of the box-like structure, said tray being adapted to support the electrical appliances placed in the lower compartment for sterilization, and said tray forming a false bottom adapted to pass hair clippings and the like therethrough.

2. The storage cabinet as set forth in claim 1 in which: the box-like structure is provided with a partial front wall extending upwardly from the partition wall to the top forming a cover for the upper compartment, said partial front wall including an aperture opening onto each reel adapted to receive and pass the power cord onto the exterior of the cabinet.

3. The cabinet as set forth in claim 1 in which: the top

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of the box-like structure is covered by a hinged lid providing access to the upper compartment.

4. The cabinet as set forth in claim 1 in which: at least two reels are located in the upper compartment arranged in side-by-side parallel relation with their axes of rotation substantially coincident with one another, a junction box is provided in the upper compartment connected to supply electrical energy to the power cords of all the appliances whose cords are reaved on the reels from a single incoming supply line.

5. The cabinet as set forth in claim 4 in which: the ultraviolet lamp is fastened to the underside of the partition wall and wired to receive power from the junction box.

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