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(54) Water based smoking pipe having electronic ignition and burning means and method of use

(57) A traditional hubbly bubbly or hookah pipe having electronic burning capabilities and being able to run on battery power or electrical power is provided. The hubbly bubbly uses an electronic burning device that includes variable heat control and ceramic and glass burning devices. The battery power of such a device is provided by a lithium battery that, in one embodiment, provides an amount of burning time equal to the time of recharge. The device can be used in a vehicle or other mobile or remote areas due to the battery power and the more safe aspect of burning with electricity rather than open flame. The device provides variation on heating by either an analog twist switch or digital devices and software. The device of the present invention provides a mix of traditional water-based smoking pipe with modern and environmentally safer burning of inhalants.

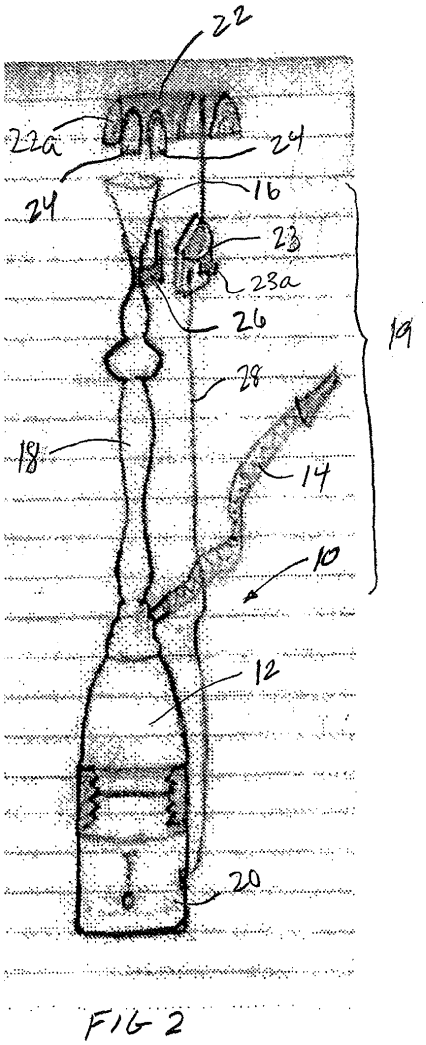

FIG 2

EP 2 292 108 A1

Description

FIELD OF THE INVENTION

[0001] The present invention concerns water pipes for use in smoking. More particularly the present invention concerns the use of electronics to maintain the smoking capabilities of a water based pipe, such as a hookah pipe or a hubbly bubbly. The invention also includes the method of using the water based smoking pipe.

BACKGROUND OF THE INVENTION

[0002] Hookah pipes, or Hubbly Bubbly pipes, are well known devices that permit the smoking of tobacco, and other combustible smoke producing products. Generally, a hubbly bubbly pipe is a single or multi-stemmed (often glass-based) water pipe for smoking. A hubbly bubbly operates by water filtration and indirect heat. It can be used for smoking herbal fruits. The use of the pipes can have both social and religious connotation and provide relaxation and enjoyment to the users. These pipes have the advantageous feature of allowing the enjoyment of smoke that has been filtered and cooled, rather than hot dirty smoke that is often the result of smoking cigars, cigarettes and direct smoke pipes or other devices.

[0003] However, because such pipes usually must be ignited with a flame and fuel they are not conveniently transported or used in all situations and can be environmental hazards as well. Because of the requirements of ignition and burning the shapes of these types of pipes have been fixed for centuries in the familiar well known shape; not allowing for more decorative shapes and designs to be used. Further, when in use in various locations these pipes, of the prior art, are typically static device offering no enhancement or visual enhancement to the user or the proprietor of smoking establishments. Further, the use of pipes of the prior art require a flame ignition and burning coals, during use, that can give uncontrollable amounts of smoke and burn such that the user cannot control the rate of tobacco consumption; further the use of live flame and burning coals presents a fire hazard and environmental hazard, particularly when such pipes are moved.

[0004] As background, the basic form of the hubbly bubbly or hookah has not changed much over time. According to the Internet encyclopedia, Wikipedia, excluding grommets, a hubbly bubbly or hookah of the prior art is usually made of five components, four of which are essential for its operation.

[0005] The bowl; Also known as the head of the hookah, the bowl is a container, usually made out of clay or marble, that holds the coal and tobacco (or other inhalant) during the smoking session. The bowl is loaded with tobacco then covered in a small piece of perforated tin foil or a metal screen. Lit coals are then placed on top, which allows the tobacco to heat to the proper temperature.

[0006] The hose: The hose is a slender tube that allows the smoke to be drawn. The end is typically fitted with a metal, wooden, or plastic mouthpiece and has some sort of design for esthetic purposes.

[0007] The body, gasket and valve: The body of the hubbly bubbly or hookah is a hollow tube with a gasket at its bottom. On some occasions the body will contain a container at the top for ice in order to cool the smoke. The gasket itself has at least one opening for the hose, but it can have more openings, thus making a multi-hosed hubbly bubbly or hookah possible. It may also have an additional opening with a valve for clearing the smoke from the water jar rather than through the hose. The gasket seals the connection of the body of the hubbly bubbly or hookah with the water jar.

[0008] The water jar: Placed at the bottom of the hubbly bubbly or hookah, the water jar is a container through which the smoke from the tobacco passes before it reaches the hose. By passing through water, the smoke gains moisture and is lowered in temperature. The level of the water has to be higher than the lowest point of the body's tube in order for the smoke to pass through it. Liquids other than water may be used, such as alcohol, spirit and/or fruit juice, mint leaves with lemon slices, and in many cases, ice may be put in the bottom of the jar to dramatically lower the temperature, making for a smoother smoke.

[0009] The plate: The plate (ash tray) is usually just below the bowl and is used for "dead" coals from previous smoking sessions.

[0010] The grommets: Grommets in a hubbly bubbly or hookah are usually placed between the bowl and the body, the body's gasket and the water jar and between the body and the hose. The reason for the usage of grommets although not essential (the usage of paper or tape has become common) will help to seal the joints between the parts, therefore decreasing the amount of air coming in and maximizing the smoke breathed in.

[0011] In operation, the jar at the bottom of the hubbly bubbly or hookah is filled with water sufficient to submerge a few centimeters of the body tube, which is sealed tightly to it. Tobacco is placed inside the bowl at the top of the pipe and a burning charcoal is placed on top of the tobacco. Some cultures cover the bowl with perforated tin foil to separate the coal and the tobacco, which minimizes inhalation of coal ash with the smoke. When one inhales via the hose, air is pulled through the coal and into the bowl. The air, hot from the charcoal, roasts the tobacco, producing smoke. This smoke passes down through the body tube, which extends into the water in the jar. It bubbles up through the water and fills the top part of the jar, to which the hose is attached. When a smoker inhales from the hose, smoke passes into the lungs, and the change in pressure in the jar pulls more air through the charcoal, continuing the process.

[0012] While the basic shape and design and use of these pipes has remained generally constant over the time of its introduction during the 16th century, it would be helpful to have a pipe of this type which would permit

portability as well as provide the user with the enjoyment of varieties of shapes and sizes as well as provide a cleaner and safer burn.

SUMMARY OF THE INVENTION

[0013] In accordance with the present invention, a water based smoking pipe or hubbly bubbly is provided comprising a bowl for cooling water, a hose (which travels through the bowl) for cooling and inhalation of smoke and a container for placement of a combustible inhalant such as tobacco. The invention further comprises an electronically controlled burner for igniting and maintaining the inhalant lit within the container. The electronically controlled burner, or combustion means, in a preferred embodiment is an electronic coal. Further, in other embodiments the electronically controlled burner is battery operated, including a rechargeable battery, and can be operated via a 12 volt power source, such as that found in an automobile or by alternating current. In one embodiment, the rechargeable battery is of a type wherein the time of operation of the battery is equivalent to the time necessary to charge the battery; such batteries as lithium-ion batteries are preferred for such embodiments.

[0014] In some embodiments of the water based smoking pipe the electronic coals comprise a ceramic holder with glass covered resistors, connected to the power source and a device to attenuate the power received, that provide sufficient heat to cause the combustible inhalants to smoke (thereby replacing real coals in a traditional pipe). The glass covered resistors thereby cause the burning of the tobacco or other combustible without use of a match and without causing a fire to be struck.

[0015] Further, in some embodiments, the electronic coals include means to electronically adjust or attenuate the heat of the coals.

[0016] The present invention also includes a method of producing cooled smoke for inhalation comprising the steps of providing a water based smoking pipe having a bowl for water, a hose for pulling smoke through the pipe, a container for a combustible inhalant, combustible inhalant, and electronic means to cause the combustible inhalant to smoke. The inhalant is caused to smoke within the container by the combustion means and the smoke caused thereby is drawn through the bowl for water via the hose to cool the smoke and then provide to the user. The method can also include the step of providing an electrical power source for the combustion means as well as providing a rechargeable batter to support the combustion means.

[0017] The method of the present invention can be practiced in an automobile if the device is provided with means to draw electricity from an automobile source.

[0018] The method can also include, in several embodiments, the adjustment or attenuation of the burning of the combustible inhalant by providing and adjusting a variable resistor or varistor to adjust the heat of combustion and then moderating the burning of the inhalant.

[0019] A more detailed explanation of the invention is provided in the following description and claims and is illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020]

Figure 1 is a perspective view of a water based smoking pipe of the prior art.

Figure 2 is a perspective view of a water based smoking pipe made in accordance with the teachings of one embodiment of the present invention.

Figure 3 is a more detailed perspective view of elements of a water based smoking pipe made in accordance with the teachings of the present invention.

Figure 4 is another perspective view of a water based smoking pipe made in accordance with the teachings of the present invention.

Figure 5 is a perspective view of a digitally controlled electronic burner of the present invention.

Figure 6 is a perspective view of a pipe used made in accordance with the teachings of the present invention.

DETAILED DESCRIPTION OF THE ILLUSTRATIVE EMBODIMENT

[0021] While the present invention is susceptible of embodiment in various forms, there is shown in the drawings a number of presently preferred embodiments that are discussed in greater detail hereafter. It should be understood that the present disclosure is to be considered as an exemplification of the present invention, and is not intended to limit the invention to the specific embodiments illustrated. It should be further understood that the title of this section of this application ("Detailed Description of the Illustrative Embodiment") relates to a requirement of the United States Patent Office, and should not be found to limit the subject matter disclosed herein.

[0022] Referring now to Figure 1, a water based smoking pipe 1, or hubbly bubbly, of the prior art is shown for illustrative purposes. The pipe comprises a water jar 2, a burning bowl 4 (into which a combustible inhalant, such as tobacco is placed and burned), a hose 6, used to pull smoke through a smoke transport means 8 and thereby through cooling water in water jar 2, so that the user can pull cool smoke into his mouth. This type of pipe, with many small variations, has been used for centuries all over the world and is well known to persons having ordinary skill in the art.

[0023] As can be seen in Figure 2, a water based smoking pipe 10 of the present invention is shown, illustrated similarly to the pipe of the prior art (Figure 1) for comparison purposes. As can be seen, the pipe 10 of the present invention includes a water bowl 12, a hose 6 (used for the same purpose as described above), a burning bowl 16 and smoke transport means 18. In addition, whereas

the pipe 1 of the prior art uses conventional means to light the combustible inhalant, the pipe 10 of the present invention further includes electronic means 19 to burn the inhalant and keep the inhalant smoking.

[0024] Electronic burning means 19, as shown in Figure 1 and more clearly in Figure 3, include a battery 20 to provide electrical power to a firebrand 22 through a power pack 23. Power pack 23 allows energy from battery 20 to be varied so as to control the heat created in the firebrand 22; variation of the energy can be made through an analog style rotate-able resister, a varistor or other electronic part as known to persons having such skills, as shown in Figure 3, or by digital means as shown in Figure 5 and Figure 6 (as will be explained in greater detail below). As shown in Figure 2, firebrand 22 further includes a ceramic cap 22a for holding glass-incased burners 24, which are used for causing the inhalant to smoke as needed. It will be understood by persons having ordinary skill in the art that other electronic means to cause inhalants to smoke can be used without departing from the novel scope of the present invention. A holder 26 is provided so as to rest firebrand 22 onto jar 16 in position to burn the inhalant as desired. An electronic cord or wire is provided to attach firebrand 22 to electrical power from batter 20 as adjusted by the user through power pack 23.

[0025] Referring now to Figure 3, it can be seen that in one embodiment of the present invention, water bowl 12 is provided with threads 12b that are cooperative with threads 20b that are provided on battery pack 20, so as to create a unitary pipe system 10. Battery pack 20 can include means to install or use dry cell batteries or can be a rechargeable battery (as shown). The battery pack 20 can include means to recharge the battery, such as charger 30, having cooperative connection means 30a and 20a, allowing the connection of charger 30 to battery 20. In one embodiment of the present invention, battery 20 includes charge view means 20c that permits the user to determine if the battery is charged and then also to determine when the battery needs to be recharged. In one embodiment of the present invention the battery charge time is equivalent to the battery use time. It will be understood that various modifications to the battery and charger system shown can be made without departing from the novel scope of the present invention. Persons having ordinary skill in the art will recognize that various power means, and specifically various types of batteries, including dry cell batteries, nickel cadmium batteries, lithium ion batteries, nickel metal hydride batteries and others can be interchanged without departing from the novel scope of the present invention.

[0026] Figure 3 further shows that a flange 26 can be placed at or about the neck 16a of the pipe 10 near the base of bowl 16, such that the electronic burning means 19 can be held in place to facilitate the burning of the inhalant. A closer representation of power pack 23 is also shown in Figure 3, wherein the means 23a to variable adjust the burning of the inhalant is shown, as well as a plug-in outlet or junction place 23b into wherein the electrical power is transferred from a battery 20 (or other electrical means) is brought to power pack 20. It will be seen that firebrand 22 is attached to power pack 20 via electronic connection means 22b, bringing power, adjusted as desired through power pack 20 and knob 23a. The power brought to firebrand 22 is transferred to resistors 24, which produce the burning of the inhalant. Glass covers 24a protect the resisters from contamination through touching the product to be burned, and allow for easier clean-up of the device.

[0027] In the use of the device of the present invention, the glass incased burners 24, within the ceramic cap 22a of firebrand 22 are placed onto bowl 16, wherein a combustible inhalant is placed (sometimes covered by a piece of perforated foil, as known by persons having ordinary skill in the art), causing the inhalant to burn and produce smoke. The smoke is drawn into the pipe 10, through smoke transporter 18, cooled by water in jar 12 and provided to the user via hose 14.

[0028] The present invention also includes a method of using the pipe 50 of the present invention. Referring to Figure 4, a user would place his favorite combustible inhalant, such as tobacco, into burning bowl 52 and fills jar 54 with water or other liquid as desired. The user then verifies that the battery 56 is charged by placing it in charger 58 for a period of time equivalent to the time of use desired for the pipe 50. Electronic burning means 60, which includes a power pack 62 and a firebrand 64 are connected to battery 56 via a power cord 64 and adjustments are made, via a variable power input 62s, in power pack 62, so that firebrand 64 heats to a desirable temperature; such as to produce heat sufficient to burn the inhalant in bowl 52 at the rate of burn desired. As the inhalant begins to smoke, the user places the tip of hose 66 to his lips and draws air in, causing smoke to be drawn from bowl 52 into passage means 68. The smoke is drawn within passage means 68 and into the water (or other liquid) 70 in jar 54, wherein the smoke is cooled, and bubbles up from the liquid and is drawn into the mouth of the user.

[0029] Referring now to Figure 5, a digital power pack 23 is provided having means to change the amount of power sent to a firebrand (such as firebrand 64 in Figure 4) and thereby affect the degree to and speed which the inhalant is burned. Adjusting means 23s is a push button type adjuster allowing the user to digitally change the amount of power sent from the power pack to the burner in increments. Power pack 23, in the present embodiment also includes a window 23d to allow the user to monitor the power level and a plug-in position 23e to connect the power pack 23 to a battery or other power source. Figure 6 shows a hose 14 having a similar adjusting means 23s and window 23d as shown in Figure 5 for use with the a power-pack 23. Hose 14, in this configuration, allows the user to adjust the burning temperature, digitally, from a more remote location, while enjoying the use of pipe 10.

[0030] It will be understood that the following elements

of the device of the present invention can be used, and are interchangeable with similar items as known to persons having skill in the art, without departing from the novel scope of the present invention. The device can include a 12 volt charger for use with batteries, such that the device can be used in cars, boats or airplanes as well as with inverters and other devices in remote or mobile locations. The battery and jar can be made with cooperative threadings to permit there easy joinder; and can be made of plastic or other light weight materials for ease in formation and in transportation. It will be seen that the device of the present invention can be used with alternating current (ac) of either 110 or 220 volts. The device can also include means to switch from power sources so that it can be used in different countries. The device can include microcomputer devices and/or software or analog devices, such as a coal key or variable, to allow adjustment of the temperature of burning either digitally, by analog means or via software. Burning can be effected by direct placement of a firebrand onto the combustible inhalant or burning can be facilitated by the use of coals that are burned and subsequently burn the inhalant.

[0031] Persons having ordinary skill in the art will understand that the use of a lithium based battery will make the device of the present invention light-weight and portable; that charging will be facilitated and that users will be able to use the device typically for the same time period as the charging period. The device further includes a hanger to hold the firebrand and power pack in place during use (and during storage so that the devices are easily found when wanted). The electronic burner, in one embodiment, includes an electronic hand to give electronic power to two firebrands. In such an embodiment, the firebrand includes two glasses for providing heat to the inhalant. The two glasses can be made of high temperature glass, such as Pirex® brand glass, and in one embodiment can be lozenge shapes with a resister inside each. The device carrying the glass can be a head made of ceramics to withstand the heat of the resisters. The use of the electronic heating device removes the need for a dish, typically held in the inhalant bowl to separate the coals from the tobacco.

[0032] The ceramics, as well as the bowl, jar and hose can be made with any decorative colors, shapes and sizes, so that the user's tastes can be reflected and more joy can be had from the device. The use of electronics with traditional pipe shapes mixes new technological developments with folklore traditions as well as provides the user with an up to date device more environmentally friendly and efficient (lower smoke of combustion and green battery power) by using the firebrand and battery to provide heat rather than using flame and coals.

[0033] Although an illustrative embodiment of the invention has been shown and described, it is to be understood that various modifications and substitutions may be made by those skilled in the art without departing from the novel spirit and scope of the invention.

Claims

1. A water based smoking pipe comprising:

a bowl for water;
a hose;
a container for a combustible inhalant;
wherein an inhalant is ignited within the container by a combustion means comprising an electronically controlled burner.

2. The water based smoking pipe of claim 1, wherein the combustion means is an electronic coal.

3. The water based smoking pipe of claim 1, wherein the electronically controlled burner is battery operated.

4. The water based smoking pipe of claim 1, wherein the electronically controlled burner is operated by a 12 volt power source, such as that found in an automobile.

5. The water based smoking pipe of claim 2, wherein electronic coals include a ceramic holder with glass covered resistors that provide sufficient heat to cause the combustible inhalants to smoke.

6. The water based smoking pipe of claim 5, wherein electronic coals include means to electronically adjust the heat of the coals.

7. The water based smoking pipe of claim 1, wherein the electronically controlled burner includes a rechargeable battery.

8. The water based smoking pipe of claim 7, wherein the rechargeable battery provides energy for a time equivalent to the charge time.

9. A water based smoking pipe comprising:

a bowl for water;
a hose;
a container for a combustible inhalant;
wherein an inhalant is ignited within the container by a combustion means comprising an electronic coal burner having a ceramic holder with glass covered resistors that provide sufficient heat to cause the combustible inhalants to smoke.

10. The water based smoking pipe of claim 9, wherein the electronic coal burner is battery operated.

11. The water based smoking pipe of claim 9, wherein the electronic coal burner is operated by a 12 volt power source, such as that found in an automobile.

12. The water based smoking pipe of claim 9, wherein electronic coal burner includes means to electronically adjust the heat of the coals.

13. The water based smoking pipe of claim 9, wherein the electronically controlled burner includes a rechargeable battery.

14. The water based smoking pipe of claim 13, wherein the rechargeable battery provides energy for a time equivalent to the charge

15. A method of producing cooled smoke for inhalation comprising the steps of:

providing a water based smoking pipe having a bowl for water, a hose for pulling smoke through the pipe, a container for a combustible inhalant, combustible inhalant, and electronic means to ignite and burn the inhalant; and
wherein the inhalant is ignited within the container by the combustion means and smoke caused thereby is drawn through the bowl for water via the hose to cool the smoke and provide it to the user.

16. The method of producing cool smoke for inhalation of claim 15, including the step of providing an electrical power source for the combustion means.

17. The method of producing cool smoke for inhalation of claim 15, including the step of providing a rechargeable batter to support the combustion means.

18. The method of producing cool smoke for inhalation of claim 15, including the step of providing means to draw electricity from an automobile source.

19. The method of producing cool smoke for inhalation of claim 15, including the step of providing a varistor to adjust the heat of combustion and then moderating the burning of the inhalant with the varistor.

20. The method of producing cool smoke for inhalation of claim 19, including the step of adjusting the varistor to increase the heat and burn the inhalant faster.

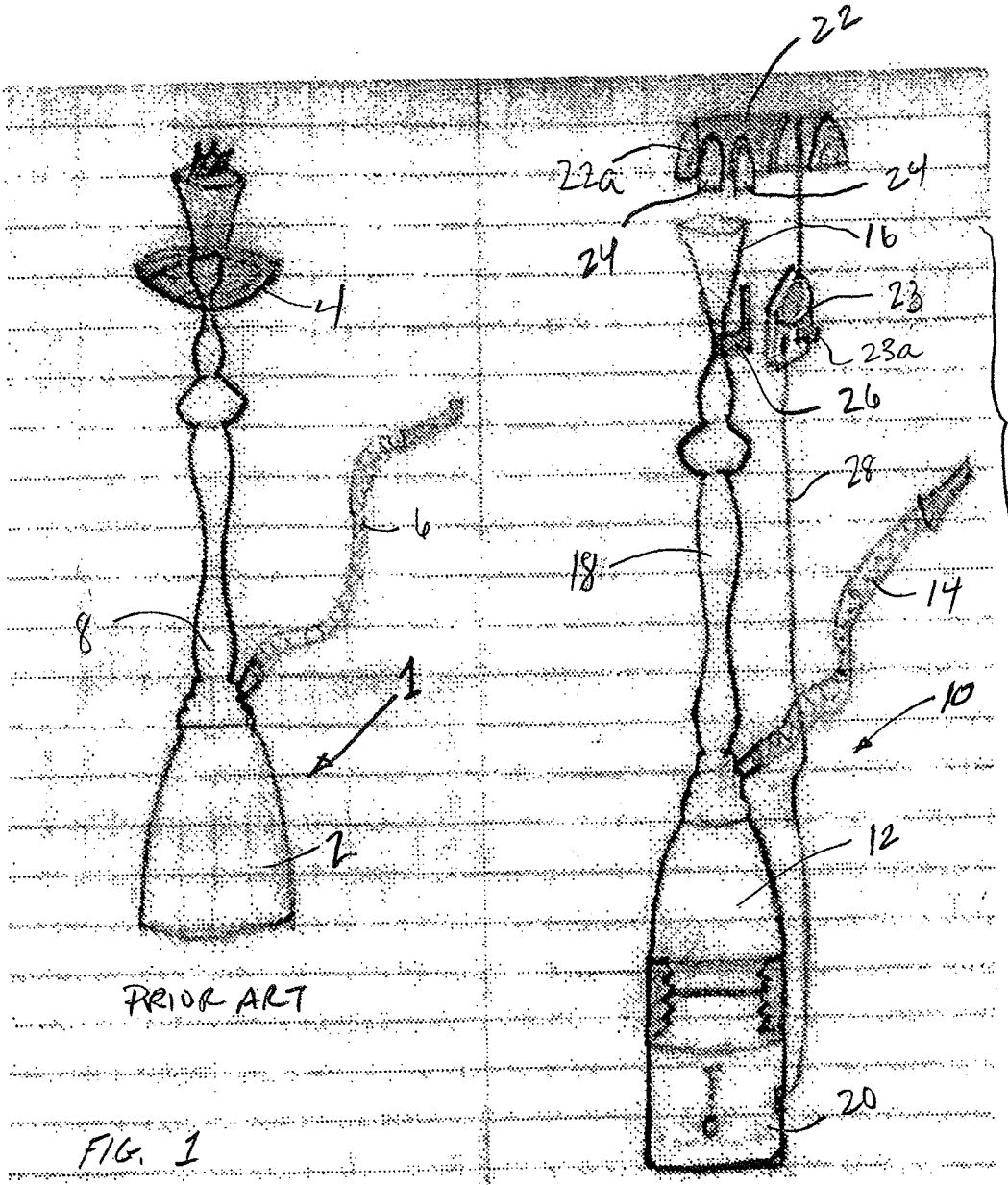

FIG. 1

FIG 2

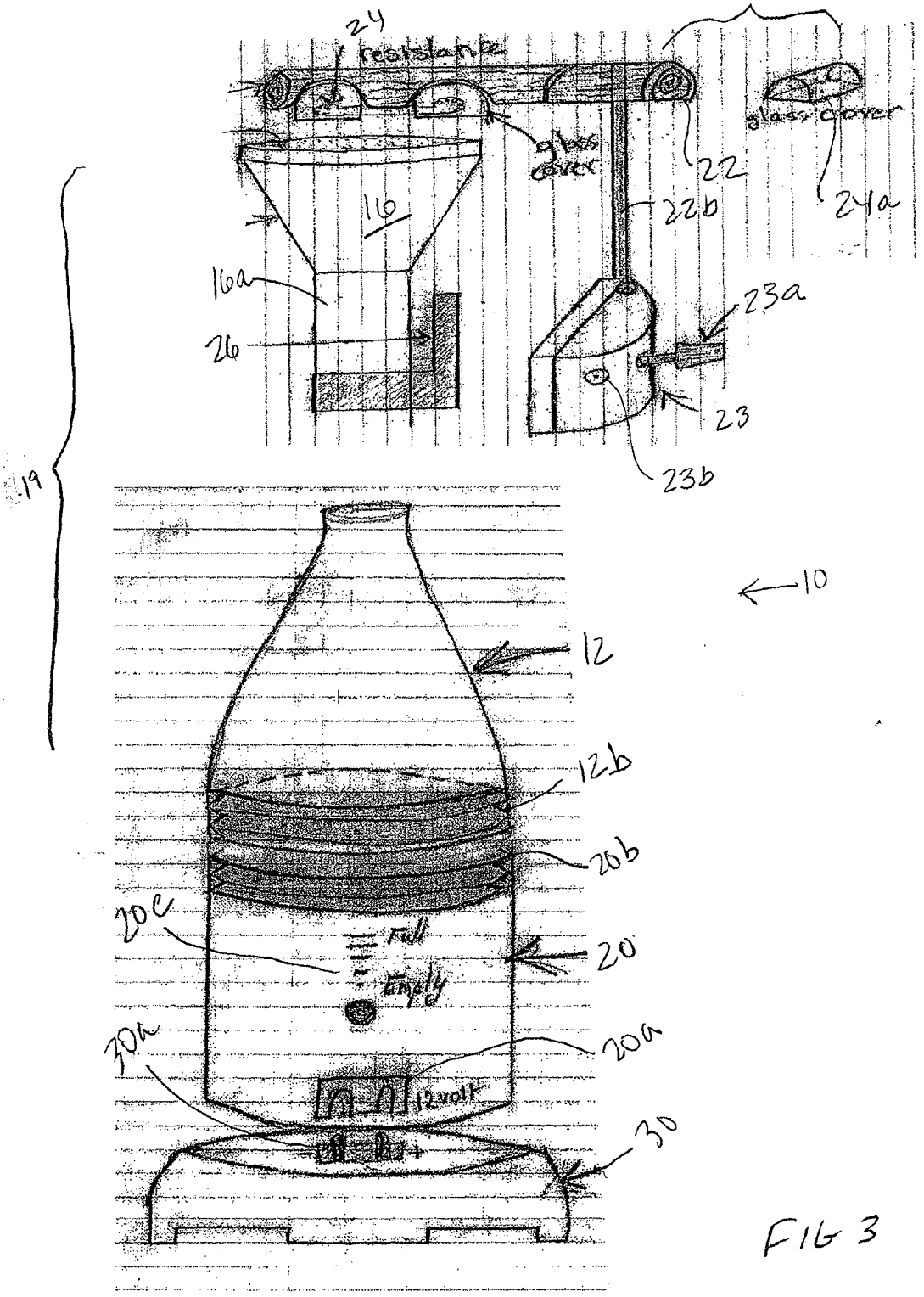
24
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FIG 3

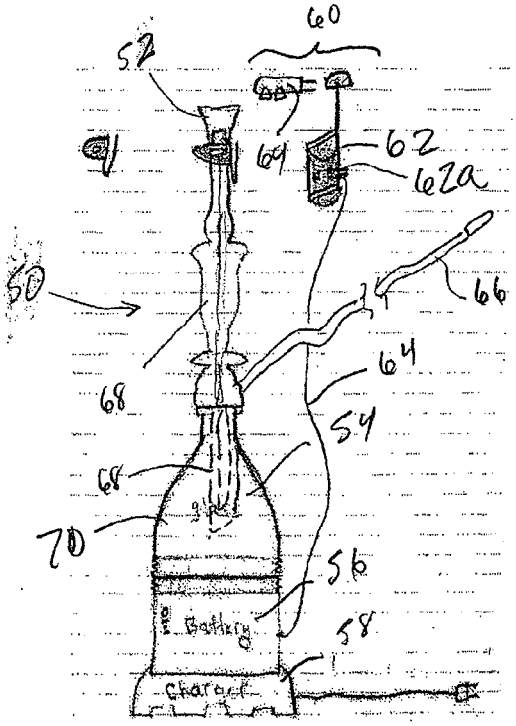

FIG 4

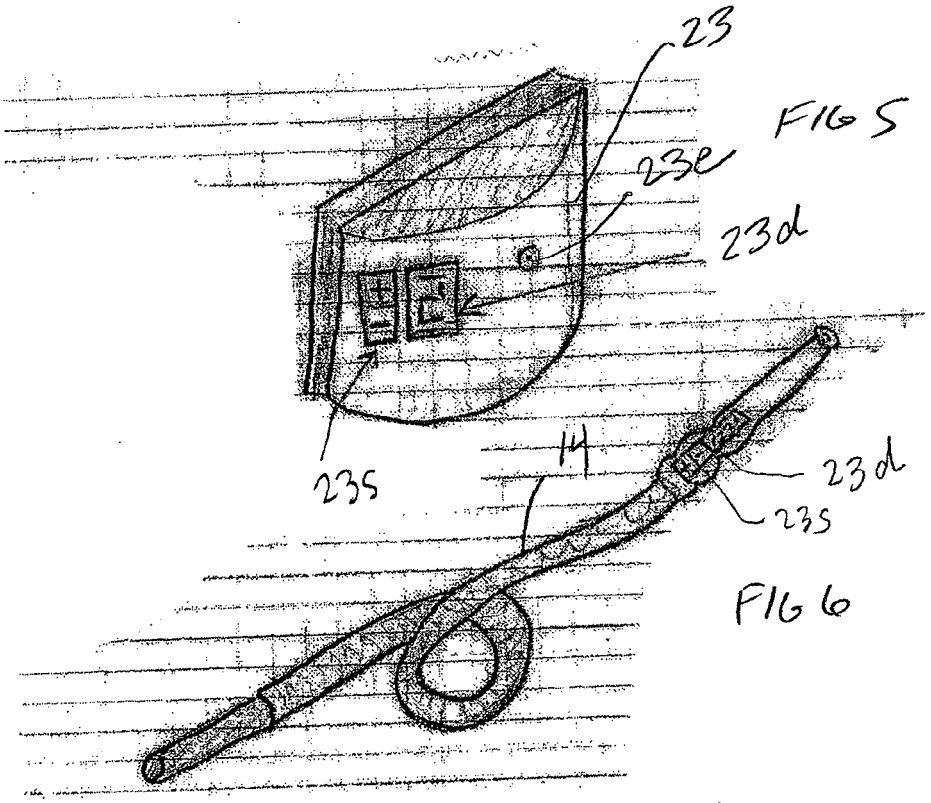

FIG 5

FIG 6

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EUROPEAN SEARCH REPORT

Application Number
EP 09 16 9224

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	11 January 2010	Kock, Søren

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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