



New connection on: : 10-09-2020 : 15:32:56 - Last disconnection on: : 10-09-2020 : 15:32:40

V 4.0.0.44803(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201820)) (RPM D201820)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 33] sanitizer

Results in EPODOC **3.779**

[SS 34] UV or ultra_violet

Results in EPODOC **366.450**

[SS 35] 33 and 34

Results in EPODOC **134**

[SS 36] ..li 1-60



1/134 © EPODOC / EPO

PN - [AU2020101428](#) A4 20200827

PR - AU20200101428 20200720

AP - AU20200101428 20200720

DT - I

PA - V MOHANAVEL; U ARUNACHALAM; R JANARTHANAN; M RAVICHANDRAN; J VAIRAMUTHU; KUMAR ATUL; DHAYAL SARDUL SINGH

TI - A SMART AND EFFICIENT **SANITIZER** DISPENSER ALONG WITH ALARM AND **UV** SANITIZATION MECHANISM

AB - A smart and efficient **sanitizer** dispenser along with alarm and **UV** sanitization mechanism is the need of an hour invention since the people around the globe are concentrating on sanitizing their hands regularly to avoid the spread of the corona virus disease. The smart **sanitizer** is a rechargeable automatic **sanitizer** dispenser stand that sanitizes the person and the things they carry with a dual mode sanitization process. The **sanitizer** is also embedded with a time sensor (101) which will alert the respective person that it's time for him/her to sanitize his/her things and himself/herself again. The **ultra violet** rays are used to sanitize the things such as cell phones and wallets. The **sanitizer** also includes alerts regarding the refilling of **sanitizer** tanks when the **sanitizer** fluids in the storage tank is about to get empty. SWITCH 105 106 1TIME ALERT RECHARGEABLE SENSOR MESSAGE BATTERY SANMDZER RAY SANITIZATION DISPENSER 102 HUMAN HANDS & THINGS FIG1: SCHEMATICVIEW

2/134 © EPODOC / EPO

PN - [US10697164](#) B1 20200630

PR - US202016734099 20200103; US201916526179 20190730

AP - US202016734099 20200103

DT - **

CT - || STSE (B1)
[US10557257](#) B1 20200211 [] (AL-SABAH SABAH THAMER ABDULLAH S [KW], et al)

CCI - [A47K7/08](#) ; [A47K17/00](#) ; [A61L2/10](#) ; [A61L2/22](#) ; [A61L9/14](#) ; [E03D9/002](#)

CCA - [A61L2202/14](#) ; [A61L2209/111](#) ; [E03D9/085](#)

CI - A47K7/08 (EP)
 - A47K17/00 (EP)
 - A61L2/10 (EP, US)
 - A61L2/22 (EP, US)
 - A61L9/14 (EP)
 - E03D9/002 (EP, US)
 - E03D9/085 (US)

CA - A61L2202/11 (US)
 - A61L2202/14 (EP, US)
 - A61L2209/111 (EP)
 - E03D9/085 (EP)

PA - AL SABAH SABAH THAMER ABDULLAH S [KW]; AL SABAH MOHAMMAD SALMAN MOHAMMAD SALMAN [KW]; AL SAHLI FAHAD S F S A [KW]

TI - Sanitizing and smart smell detection device for handheld bidet sprayer and air freshening

AB - A sanitizing device for a handheld bidet sprayer includes a housing for holding a handheld bidet sprayer on a spray head mount, an optical sensor used to detect the presence or absence of the sprayer in the housing, an odoriferous substance sensor used to sense odoriferous conditions or indications of a significant presence of microbes, a chemical discharge module, an **ultraviolet** light source, and a control module. The chemical discharge module includes a chemical supply holder and a plurality of conduits extending from the chemical supply holder. The chemical supply holder includes at least one container of fragrance and at least one container of **sanitizer**. Upon sensing odoriferous conditions or indications of a significant presence of microbes, the control module causes the discharge of the **sanitizer** and/or fragrance.

3/134 © EPODOC / EPO

PN - [KR102108702B](#) B1 20200508

PR - KR20190055482 20190513

AP - KR20190055482 20190513

DT - I

CT - || STSE (B1)
[KR101896245B](#) B1 20180907 [] (JUSIM GLOBAL CO LTD [KR]);
[KR20180012496](#) A 20180206 [] (H&B21 CO LTD [KR], et al);
[KR20180135840](#) A 20181221 [] (JEON YONG SUN [KR], et al)

CI - A45D33/24 (KR)
 - A45D33/26 (KR)
 - A45D33/34 (KR)
 - A45D40/18 (KR)
 - A45D40/222 (KR)
 - A61L2/10 (KR)
 - A61L2/24 (KR)

	- F26B3/02 (KR)
CA	- A45D2033/001 (KR) - A45D2200/155 (KR) - A45D2200/205 (KR) - A61L2202/122 (KR) - A61L2202/14 (KR)
PA	- PRIME L CO LTD [KR]
TI	- Puff sanitizer
AB	- The present invention relates to a puff sterilizer. The puff sterilizer comprises: a lower body which has a lower receiving space opened upward; an upper body which is coupled to the lower body by a hinge and detachably coupled by a first detachable coupling unit to open and close the lower receiving space and is formed with a first upper receiving space with an opening downward in an inner lower part and a second upper receiving space opened upward in a lower upper part to store a cosmetic product; a cover which is connected to the upper body by a hinge and is detachably coupled by a second detachable coupling unit to open and close the second upper receiving space; a holding plate which is installed in the lower receiving space, is formed with a plurality of through-holes, and is installed to place a puff on an upper surface thereof; an ultraviolet light emitting unit which is installed in the lower receiving space to be positioned below the holding plate and emits ultraviolet rays to the puff through the through-holes; a drying unit which is installed in the first upper receiving space and provides heat or air for drying to the puff through the opening; and a power unit which is installed to provide power required for the operation of the ultraviolet light emitting unit and the drying unit. According to the present invention, in addition to sterilizing the puff, it is possible to store a cosmetic product such as powder or foundation and the like. Furthermore, even if the puff contains moisture due to contact with the skin, the present invention has a drying function. Therefore, the present invention allows a user to use the puff hygienically and makes the puff feel excellent.

4/134 © EPODOC / EPO

PN	- US10557257 B1 20200211
PR	- US201916526179 20190730
AP	- US201916526179 20190730
DT	- *, Rep
CT	- STSE (B1) US2017172371 A1 20170622 [] (ENGESSER KLAUS [DE], et al)
CCI	- A47K7/08 ; A47K17/00 ; A61L2/10 ; A61L2/22 ; A61L9/14 ; E03D9/002
CCA	- A61L2202/14 ; A61L2209/111 ; E03D9/085
CI	- A47K7/08 (EP) - A47K17/00 (EP) - A61L2/10 (EP, US) - A61L2/22 (EP, US) - A61L9/14 (EP) - E03D9/002 (EP, US) - E03D9/085 (US)
CA	- A61L2202/11 (US) - A61L2202/14 (EP, US) - A61L2209/111 (EP) - E03D9/085 (EP)

- PA - AL SABAH SABAH THAMER ABDULLAH S [KW]; AL SABAH MOHAMMAD SALMAN MOHAMMAD SALMAN [KW]; AL SAHLI FAHAD S F S A [KW]
- TI - Sanitizing and smart smell detection device for handheld bidet sprayer and air freshening
- AB - A sanitizing device for a handheld bidet sprayer includes a housing for holding a handheld bidet sprayer on a spray head mount, an optical sensor used to detect the presence or absence of the sprayer in the housing, an odoriferous substance sensor used to sense odoriferous conditions or indications of a significant presence of microbes, a chemical supply holder, an **ultraviolet** light source, and a control module. The chemical supply holder includes at least one container of fragrance and at least one container of **sanitizer**. Upon sensing odoriferous conditions or indications of a significant presence of microbes, the control module causes the discharge of the **sanitizer** and/or fragrance.

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PN - [US2019291149](#) A1 20190926

PR - US201815927376 20180321

AP - US201815927376 20180321

DT - *, Rep

CCI - [B08B1/02](#) ; [B08B3/022](#) ; [B08B7/0057](#)

CI - B08B1/006 (US)

- B08B1/02 (EP)

- B08B3/022 (EP)

- B08B3/041 (US)

- B08B7/0057 (EP, US)

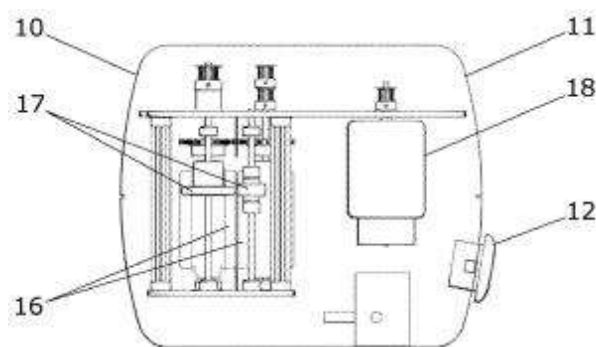
- B08B7/04 (US)

- G06K19/06196 (US)

PA - DAMSKOV MATTHEW [US]

TI - Keycard **sanitizer**

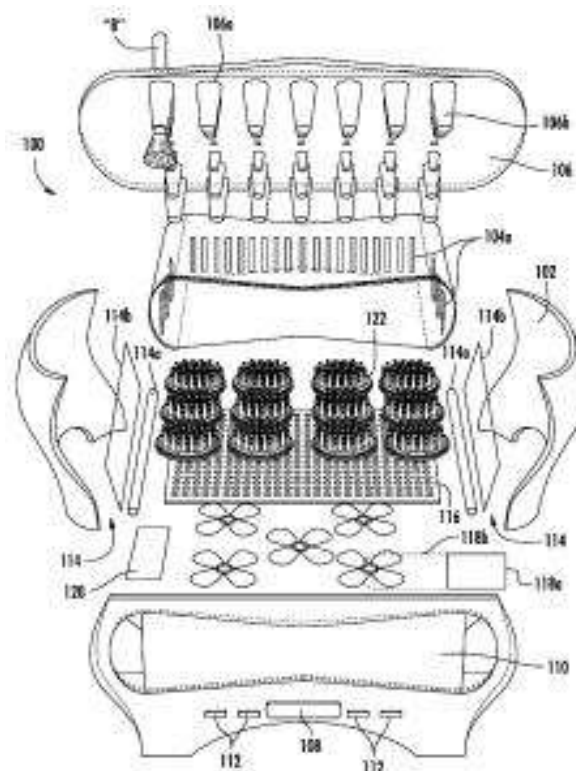
AB - The invention is directed to a keycard **sanitizer**. The **sanitizer** employs one or more of three different methods to sanitize keycards turned in by customers: **ultraviolet** light projectors, **sanitizer** sponges, and **sanitizer** sprayers. A plurality of drying sponges and a **sanitizer** drain are also provided. Preferably, a detachable feeder tray and a detachable receiver tray are provided to feed keycards into a card entrance slot on the **sanitizer**, and receive keycards as they are expelled from an exit slot on the **sanitizer**, respectively. The **sanitizer** enables the management of a business to sanitize keycards



and reissue the keycards to incoming customers, saving the expense of discarding and replacing used keycards.

6/134 © EPODOC / EPO

- PN - [US2019274421](#) A1 20190912
- PR - US201916295113
20190307; US201862640212P
20180308
- AP - US201916295113 20190307
- DT - *; Rep
- CCI - [A46B17/06](#) ; [A46B17/065](#) ;
[A61L2/04](#) ; [A61L2/10](#) ;
[F26B3/02](#)
- CCA - [A46B2200/1046](#) ;
[A61L2202/11](#) ; [A61L2202/122](#)
- CI - [A46B17/06](#) (EP)
- [A46B17/065](#) (EP, US)
- [A61L2/04](#) (EP)
- [A61L2/10](#) (EP)
- [B08B7/0057](#) (US)
- [B08B11/02](#) (US)
- [F26B3/02](#) (EP)
- CA - [A46B2200/1046](#) (EP, US)
- [A61L2202/11](#) (EP)
- [A61L2202/122](#) (EP)
- PA - COSOLITO LISA [US]
- TI - Brush Cleaning Device Using **UV**
Light to Dry, Sanitize, and
Disinfect Cosmetic Brushes
- AB - A dryer, **sanitizer**, and
disinfecting device for make-up
brushes includes an outer
housing having an upper surface
defining a plurality of openings
therein with the plurality of
openings arranged in a linear
array; an inner housing
including a retainer having a
plurality of recesses
corresponding to the plurality of
openings defined in the outer
housing; and a sterilizing
component supported within at
least one of the outer housing or
the inner housing, wherein the
sterilizing component effects the
cleaning chamber, and wherein
the sterilizing component
includes a **UV** light bulb.



7/134 © EPODOC / EPO

PN - [AU318408S](#) S 20080312
PR - EM20077284640004F 20070524
AP - AU20070020844F 20071114
DT - I
PA - KONINL PHILIPS ELECTRONICS NV
TI - **UV sanitizer**
AB - Newness and distinctiveness reside in the features of the design as shown in the representations.

8/134 © EPODOC / EPO

PN - [AU318406S](#) S 20080312
PR - EM20077284640001F 20070524
AP - AU20070020842F 20071114
DT - I
PA - KONINL PHILIPS ELECTRONICS NV
TI - **UV sanitizer** for toothbrush head
AB - Newness and distinctiveness reside in the features of the design as shown in the representations.

9/134 © EPODOC / EPO

PN - [US2019162471](#) A1 20190530
PR - US201916264970 20190201; US201715419297 20170130; US201414558510 20141202; US201213591537 20120822; US201161526843P 20110824
AP - US201916264970 20190201
DT - **
CCI - [D06F59/04](#) ; [F26B3/283](#) ; [F26B9/003](#)
CI - A61L2/10 (US)
- A61L2/16 (US)
- D06F59/04 (EP, US)
- F26B3/28 (US)
- F26B3/283 (EP, US)
- F26B9/003 (EP, US)
- F26B21/06 (US)
- F26B23/00 (US)
CA - A61L2202/11 (US)
- A61L2202/26 (US)
PA - STEWART MICHAEL [US]
TI - MATTRESS **SANITIZER**
AB - A system and method for sanitizing a mattress is provided. The system for sanitizing a mattress includes a pair of members with at least one member having at least one **UV-C** emitter, at least one light source, and at least one air source. An ozone source is in communication with the pair of members. A source of air flow is in communication with the pair of members and a heat source is in communication with the heat source. A spray source is also provided for spraying a solution. A method of sanitizing a mattress comprises the steps of applying **UV-C** radiation to a mattress to kill microorganisms, providing ozone to the mattress, and combining ozone with **UV-C** radiation and

moisture to produce a purifying agent. The method further comprises the steps of applying pressure and heat to the mattress to kill pathogens and spraying a solution on the mattress.

10/134 © EPODOC / EPO

PN - [CN109602630](#) A 20190412

PR - CN20191066961 20190124

AP - CN20191066961 20190124

DT - I

CI - A61K8/498 (CN)
- A61K8/55 (CN)
- A61K8/70 (CN)
- A61K8/86 (CN)
- A61K8/9789 (CN)
- A61Q17/005 (CN)
- A61Q19/08 (CN)
- A61Q19/10 (CN)

CA - A61K2800/592 (CN)

PA - SICHUAN TECH & BUSINESS COLLEGE

TI - Antibacterial whitening hand **sanitizer**

AB - The invention discloses an antibacterial whitening hand **sanitizer**. The formula includes the following components in percentage by mass: 0.1-2% of a fluorocarbon surfactant, 0.1-5% of a nonionic surfactant, 0.1-5% of a mphoteric surfactant, 0.1-10% of a cationic surfactant, 0.2-3% of a humectant, 0.2-5% of EDTA-2Na, 0.1-2% of citric acid, 0.5-5% of NaCl, 0.1-8% of kojic acid and derivatives thereof, 0.2-5% of a compound antioxidant, 0-2% of a compound flavoring agent, and the balance of water. The antibacterial whitening hand **sanitizer** of the present scheme is synergistically enhanced through the compounding with a special fluorocarbon surfactant, and has an ideal antibacterial effect; and the kojic acid and derivatives thereof are used for inhibiting pigmentation caused by **ultraviolet** irradiation and alleviating stimulating effect of the hand **sanitizer** on the skin so as to enhance the sterilization and whitening effect of the hand **sanitizer**. The hand **sanitizer** has a mild performance, no chemical preservative, and no irritation to the skin, and can be used for facial skin cleansing.

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PN - [KR101951643B](#) B1 20190225

PR - KR20180091519 20180806

AP - KR20180091519 20180806

DT - I

CT - || STSE (B1)
[KR100447287B](#) B1 20040826 [] (UVICO CO LTD);
[KR100928833B](#) B1 20091127 [] (LEE YONG KYUNG [KR]);
[KR101876345B](#) B1 20180709 [] (AHN CHANG SUN [KR]);
[KR20060064365](#) A 20060613 [] (UVICO CO LTD [KR]);
[KR20160060286](#) A 20160530 [] (WITHUS INC KOREA CO LTD [KR]);
[KR200475426Y](#) Y1 20141201 []

CI - A61J17/001 (KR)
- A61L2/10 (KR)

CA - A61L2202/11 (KR)
- A61L2202/121 (KR)

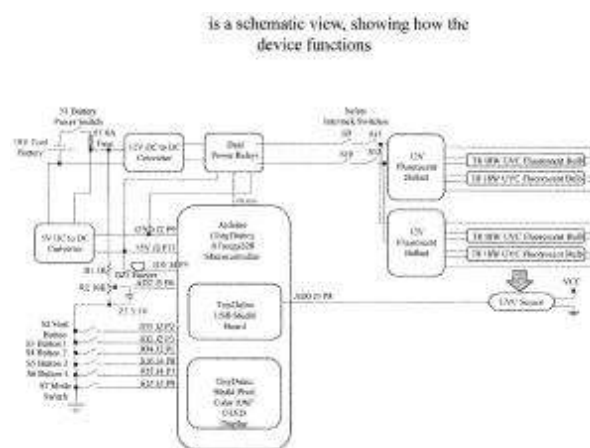
- A61L2202/122 (KR)
- A61L2202/14 (KR)
- A61L2202/16 (KR)
- PA - NOVELWORKS [KR]
- TI - A SOOTHER PACIFIER STERILIZER
- AB - The present invention relates to a pacifier sterilizer, more particularly, which comprises: a sterilizer main body having a lid body and a main body for accommodating the pacifiers therein; a **UV** LED lamp for irradiating **ultraviolet** rays to sterilize the pacifiers; a power supply unit for supplying power to operate the **UV** LED lamp; and a control unit for controlling operation of the **UV** LED lamp, detecting operation of a power switch, and controlling disinfection display. According to the pacifier **sanitizer** proposed in the present invention, the pacifier **sanitizer** is portable when outside and capable of sterilizing the pacifiers anytime and anywhere.

12/134 © EPODOC / EPO

- PN - [CN208498519U](#) U 20190215
- PR - CN20182110069U 20180628
- AP - CN20182110069U 20180628
- DT - I
- PA - XU FENG
- TI - Urine storage conveyer with function of disinfecting
- AB - The utility model discloses an urine storage conveyer with function of disinfecting, which comprises a base, the chassis lower extreme left and right sides all is provided with the carousel, the carousel lower extreme is provided with the universal wheel, the chassis upper end left and right sides all is provided with set post, the cover column sleeve is equipped with the buttress shaft, the buttress shaft lower extreme is located set post and is provided with the anticreep piece, buttress shaft upper end fixedly connected with fagging, the cover is equipped with the spring on being located thin pole between fagging and the cover post, the fagging upper end is provided with the box, the lower extreme right part is provided with and stores the urine case in the box, store urine case left side middle part and be provided with the protection casing, the the device during operation, **ultraviolet** lamp can disinfect to the urine, and the **sanitizer** can be put into after accomplishing to work,washes the tank wall, and the rack structure realizes that the brush goes up and down, and the cleaning performance is better. The three -layer filter carries out the prefilter to the urine, the effectof disinfecting greatly increased. The buffer gear of bottom will make the device more steady.

13/134 © EPODOC / EPO

- PN - [US10201626](#) B1 20190212
- PR - US201715436848 20170219
- AP - US201715436848 20170219
- DT - *; Rep
- CT - || STSE (B1)
[US4033719](#) A 00000000 [];
[US7622892](#) B2 00000000 [];
[US9265850](#) B2 00000000 [];
[US2010061887](#) A1 00000000 [];
[US2014264084](#) A1 00000000 []
- CCI - [A61L2/10](#) ; [A61L2/24](#)
- CCA - [A61L2202/11](#) ; [A61L2202/122](#) ;



[A61L2202/14](#) ; [A61L2202/16](#)

- CI - A61L2/10 (EP, US)
 - A61L2/24 (EP, US)
 - G01J1/429 (US)
- CA - A61L2202/11 (EP, US)
 - A61L2202/122 (EP, US)
 - A61L2202/14 (EP, US)
 - A61L2202/16 (EP, US)
- PA - RAPP LUKE EDWARD [US]
- TI - Portable **ultra violet C sanitizer**
- AB - The Portable **Ultra Violet C Sanitizer** is a self-contained, portable, self-shut-off, preprogrammed/programmable UVC light irradiation microorganism inactivation device that more effectively, efficiently and safely sanitizes surfaces than comparable products presently on the market. Advantageously, the device provides a faster alternative for UVC sterilization of a surface, while protecting the operator from potentially dangerous exposure to the UVC radiation.

14/134 © EPODOC / EPO

- PN - [USD358637S](#) S 19950523
- PR - US19930010613F 19930916
- AP - US19930010613F 19930916
- DT - I
- PA - ATLANTIC ULTRAVIOLET CORP
- TI - Germicidal **ultraviolet air sanitizer**

15/134 © EPODOC / EPO

- PN - [KR20180135840](#) A 20181221
- PNFP - KR102054265B B1 20191210
- PR - KR20180161388 20181213
- AP - KR20180161388 20181213
- DT - I
- CT - || STSE (A)
 - [JP2003135570](#) A 20030513 [] (YOSHIHARA SEISHIRO);
 - [KR20090078392](#) A 20090720 [] (HK INDUSTRY CO LTD [KR]);
 - [KR101708436B](#) B1 20170309 [] (SKINDREAM CO LTD [KR])
- CI - A45D33/32 (KR)
 - A45D33/36 (KR)
 - A61L2/10 (KR)
 - A61L2/26 (KR)
- CA - A45D2033/001 (KR)
 - A45D2200/1009 (KR)
 - A61L2202/11 (KR)

PA - (A)
JEON YONG SUN [KR]; CHOI WON TAEK [KR]; CHOI HONG SUN [KR]

TI - (A B1)
Puff **sanitizer** of cosmetics kit using **UV** LED

AB - (A)
Disclosed is a cosmetic tool sterilizer using an **ultraviolet (UV)** LED. **Ultraviolet** light having a wavelength of 200-400 nm of one or more **UV** LEDs arranged in a puff (foundation sponge), a spatula (cosmetic spoon), and a brush used as a cosmetic tool is emitted to (1) a side, (2) a lower surface, and (3) an upper surface of the cosmetic tool and is directly emitted to (4) the lower surface of the cosmetic tool without a reflector to use a more sanitary cosmetic tool by **UV** LED sterilization of various bacteria such as microorganisms, bacteria, staphylococcus aureus, pseudomonas aeruginosa, and colon bacillus existing in a cosmetic tool in a container for a prescribed time (7-11 minutes for **UV-A** and 3 seconds to 1 minute for **UV-C**) when opening and closing the cosmetic tool. The present invention is conveniently carried, uses an elegant design preferred by women, uses **UV** LEDs for semi-permanent and sanitary use without worrying about lamp replacement, has a rechargeable secondary battery, and can be charged anytime and anywhere.

16/134 © EPODOC / EPO

PN - [KR20180133960](#) A 20181218

PR - KR20170068578 20170601

AP - KR20170068578 20170601

DT - I

PA - JEON YONG SUN [KR]; CHOI WON TAEK [KR]; CHOI HONG SUN [KR]

TI - Puff **sanitizer** of cosmetics kit using **UV** LED

AB - The present invention relates to a sterilizer of a cosmetics tool using a **UV** LED. More specifically, microorganisms, bacteria, and various viruses present in a puff, a spatula, a brush, and the like used as the cosmetics tool are sterilized by (1) side surface irradiation, (2) bottom surface irradiation, (3) top surface irradiation, and (4) top surface direct irradiation without a reflector of **UV** rays having a wavelength of 200-400 nm of one or a plurality of **UV** LEDs provided in a cosmetics tool. When opening and closing a cosmetics tool, microorganisms, bacteria, and various viruses, such as staphylococcus, Pseudomonas aeruginosa, and E. coli, present in a puff (foundation sponge), a spatula (cosmetics spoon), a brush, or the like which is a cosmetics tool in a container are sterilized through **UV** LED rays by using a **UV** LED sterilizer for a predetermined period of time (**UV-A** 7-11 minutes, **UV-C** 3-60 seconds). Thus, more hygienic cosmetics tool may be used. The sterilizer of the present invention is easy to carry and uses a sophisticated design which is favored by women. By applying **UV** LEDs, the sterilizer is semi-permanently hygienically used without lamp replacement. Since a rechargeable secondary battery is embedded, the sterilizer can be conveniently charged anywhere and anytime.

17/134 © EPODOC / EPO

PN - [CN108938272](#) A 20181207

PR - CN201710358525 20170519

AP - CN201710358525 20170519

DT - I

CI - A61G12/00 (CN)
- A61L2/10 (CN)

CA - A61L2202/24 (CN)

PA - SHIYAN LIZI MEDIA CO LTD

TI - Disinfection operation table used for medical care

AB - The invention relates to a disinfection operation table for medical care, belonging to the field of medical instruments. The disinfection operation table for medical care comprises a cabinet body, an operation table surface disposed on the top end of the cabinet body, a plurality of drawers disposed on the top end of the cabinet body, and an object storage table surface disposed on the bottom end of the cabinet body. Two sides in the width direction of the operation table surface are equipped with fences. One side in the length direction of the operation table surface is equipped with a fence. One side outside the fence is equipped with a sharps box and the other side thereof is equipped with a hand sanitizer box. One side in the length direction of the fence is equipped with an **ultraviolet** disinfection lamp. An object storage cavity is arranged between the bottom of the drawers and the top of the object storage table surface. By arranging the multiple drawers, medical objects are classified and stored conveniently. Medical staff can conveniently wash and sanitize hands after patients receive treatment. By arranging the **ultraviolet** disinfection lamp, medical utensils are conveniently sanitized. By arranging the object storage cavity, larger medical utensils are convenient to place.

18/134 © EPODOC / EPO

PN - [US2018303961](#) A1 20181025

PR - US201715497137 20170425

AP - US201715497137 20170425

DT - *, Rep

CCI - [A61L2/10](#)

CCA - [A61L2202/24](#)

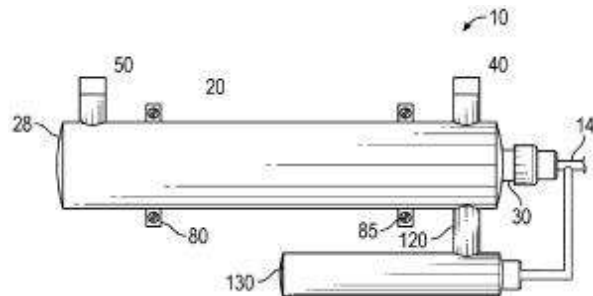
CI - A61L2/0023 (US)
- A61L2/10 (EP, US)

CA - A61L2202/11 (US)
- A61L2202/122 (US)
- A61L2202/24 (EP)

PA - DELAROSA JACOB [US]; JACKSON
MICHAEL [US]; LEON JUAN [US]

TI - CARDIAC **ULTRAVIOLET** SANITIZER

AB - A sterilization apparatus for use with a cardioplegia heat exchanger device includes an enclosure having an internal volume defined between two ends and a wall. The first end includes a bulb access port, an inlet port formed proximate to or in the first end, a biofilm sterilizing port, and an outlet port formed proximate to or in the second end. A quartz sleeve and an **ultraviolet** bulb project inwardly into the internal volume from proximate the bulb access port. The **ultraviolet** bulb illuminates to radiate water



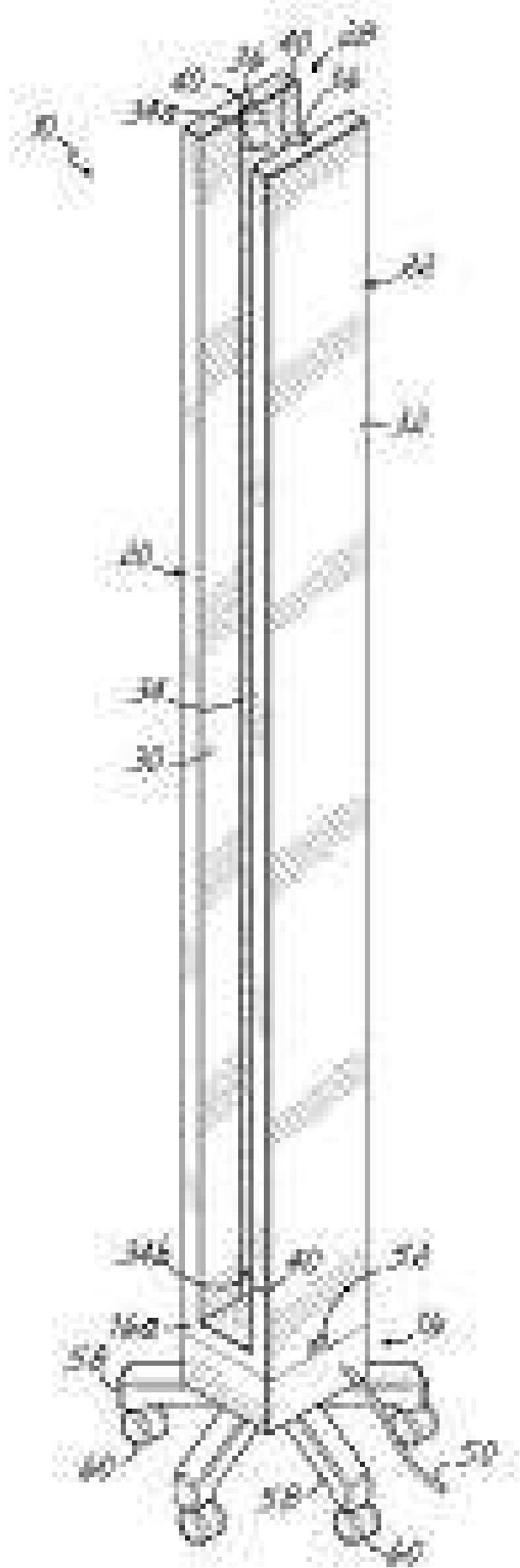
entering the inlet port and flowing towards the outlet port between the cylindrical wall and the quartz sleeve. A wiper ring may be slidably fixed around the quartz sleeve for cleaning. In an alternate embodiment, the bulb access port is formed through a water tank of the cardioplegia heat exchanger device with the quartz sleeve and bulb projecting inwardly into the water tank.

19/134 © EPODOC / EPO

- PN - [CA3000421](#) A1 20181007
- PR - US201715481864 20170407
- AP - CA20183000421 20180406
- DT - I
- CCI - [A61L2/10](#)
- CCA - [A61L2202/11](#) ; [A61L2202/122](#) ; [A61L2202/14](#) ; [A61L2202/16](#) ; [A61L2202/24](#) ; [A61L2202/26](#)
- CI - A61L2/10 (EP, US)
- CA - A61L2202/11 (EP, US)
- A61L2202/122 (EP, US)
- A61L2202/14 (EP, US)
- A61L2202/16 (EP, US)
- A61L2202/24 (EP, US)
- A61L2202/26 (EP, US)
- PA - STANDARD TEXTILE CO INC [US]
- TI - CURTAIN **SANITIZER** DEVICE AND METHOD OF USING THE SAME
- AB - A curtain **sanitizer** device and method, such as for use in the healthcare industry, is disclosed that can sanitize at least a portion of the surface of a hung curtain, e.g. a privacy curtain, by directing **UV-C** light thereat to kill or inactivate harmful microorganisms thereon that can cause infectious disease, thereby reducing the risk of spreading infectious disease. In one example, at least a portion of opposite surfaces or sides of the hung curtain can be simultaneously sanitized. The curtain **sanitizer** device and method can allow the curtain to be cleaned in place, and can be easier to use and less costly and time consuming than other currently available methods and devices.

20/134 © EPODOC / EPO

PN - [US2018289847](#) A1 20181011
 PNFP - US10493176 B2 20191203
 PR - US201715481864 20170407
 AP - US201715481864 20170407
 DT - *, Rep
 CT - || STSE (A1)
 [US3078525](#) A 19630226
 [Y] (GRAHM WILLIAM H, et al)
 [Y] 1-41
 * Fig.4:10 | col.1 lines 8-14 | Fig.
 2:13 | Fig.2:11 | Fig.2:12 |
 section 11 | Fig.2 | section 12 |
 Fig.2:50 | sections 11 and 12 |
 Fig.3 | Fig.3:11 | Fig.3:12 |
 section 13 | Fig.3:50 | col.3 lines
 34-50 col.4 lines 1-4 | claim 11
 | Fig.2:46 and 47 | claim 12 | Fig.
 4:55 | claim 17 | Fig.1:46 and 47
 | claim 28 | Fig.3:11 and 12 |
 claim 29 | Fig.2:27 and 28 | Fig.
 2:11 and 12 | *;
 [US9210784](#) B2 20151208
 [Y] (ANTONIAZZI MARCO [IT])
 [Y] 1-41
 * Fig.4:8, 13a | col.2 lines 42-45
 | col.1 lines 22-33 | Fig.4:12a |
 Fig.5:112a | Fig.4:7b | col.1 lines
 7-10 *;
 [US2013004367](#) A1 20130103
 [Y] (ROBERTS JON L [US])
 [Y] 2-3, 5, 7, 21-22, 26-27
 * Fig.3:100 | Fig.3:140 | [0032] *
 - || STSE (B2)
 [US3078525](#) A 19630226 [
] (GRAHM WILLIAM H, et al);
 [US9210784](#) B2 20151208 [
] (ANTONIAZZI MARCO [IT]);
 [US2013004367](#) A1 20130103 [
] (ROBERTS JON L [US])
 CCI - [A61L2/10](#)
 CCA - [A61L2202/11](#) ; [A61L2202/122](#) ;
 [A61L2202/14](#) ; [A61L2202/16](#) ;
 [A61L2202/24](#) ; [A61L2202/26](#)
 CI - A61L2/10 (EP, US)
 CA - A61L2202/11 (EP, US)
 - A61L2202/122 (EP, US)
 - A61L2202/14 (EP, US)
 - A61L2202/16 (EP, US)
 - A61L2202/24 (EP, US)
 - A61L2202/26 (EP, US)
 PA - (A1 B2)
 STANDARD TEXTILE CO INC [US]



- TI - (A1)
CURTAIN **SANITIZER** DEVICE AND
METHOD OF USING THE SAME
- (B2)
Curtain **sanitizer** device and
method of using the same
- AB - (A1 B2)
A curtain **sanitizer** device and
method, such as for use in the
healthcare industry, is disclosed
that can sanitize at least a
portion of the surface of a hung
curtain, e.g. a privacy curtain, by
directing **UV-C** light thereat to
kill or inactivate harmful
microorganisms thereon that
can cause infectious disease,
thereby reducing the risk of
spreading infectious disease. In
one example, at least a portion
of opposite surfaces or sides of
the hung curtain can be
simultaneously sanitized. The
curtain **sanitizer** device and
method can allow the curtain to
be cleaned in place, and can be
easier to use and less costly and
time consuming than other
currently available methods and
devices.

21/134 © EPODOC / EPO

- PN - [CN108309646](#) A 20180724
- PR - CN201810164355 20180227
- AP - CN201810164355 20180227
- DT - I
- CT - || STSE (A)
[CN204030223U](#) U 20141217 [A] (TAIZHOU FUDA ELECTROMECHANICAL CO LTD)
[A] 1-6
* 全文 *;
[CN204909967U](#) U 20151230 [Y] (YU HUI)
[Y] 1-6
* 说明书第0013段, 附图1 *;
[CN205434191U](#) U 20160810 [Y] (XUANSI (TIANJIN) TECH CO LTD)
[Y] 1-6
* 说明书第0015-0019段, 附图1 *;
[CN205617136U](#) U 20161005 [A] (NEWSEGA TEXTILE (NANTONG) CO LTD)
[A] 1-6
* 全文 *;
[CN206135425U](#) U 20170426 [Y] (HENAN TAINENG ELECTRIC CO LTD)
[Y] 1-6
* 说明书第0010段, 附图1-2 *;
[CN206372227U](#) U 20170804 [A] (YANG LIBO)

[A] 1-6

* 全文 *;

[CN206671374U](#) U 20171124 [A] (SHENZHEN HONGTAI SECURITY TECH CO LTD)

[A] 1-6

* 全文 *;

[CN206928119U](#) U 20180126 [A] (HAIYAN WEIBOYA KNITTING CLOTHING CO LTD)

[A] 1-6

* 全文 *

- CI - A61G12/001 (CN)
- PA - WANG XIANGLING
- TI - Nursing dressing change cart for otorhinolaryngology
- AB - The invention discloses a nursing dressing change cart for otorhinolaryngology which belongs to the technical field of medical apparatus. The cart includes a body. The top of the left side of the body is provided with a push rod. Both left and right sides of the bottom of the body are provided with road wheels. The top of the chamber of the body is provided with a tissue box. The bottom of the tissue box is provided with a hand **sanitizer** bottle. The bottom of the hand **sanitizer** bottle is provided with rinsing table. The left side of the bottom of the chamber of the body is provided with a dustbin. The dustbin is arranged on the left side of the bottom of the rinsing table. The center of the bottom of the rinsing table is provided with a liquid outlet hopper. The bottom of the chamber of the liquid outlet hopper is clamped with a purification device. The bottom of the liquid outlet hopper is provided with a waste liquid tank through a waste liquid pipe; According to the invention, the worktable is pulled out by a telescopic device and hands are cleaned in advance at the rinsing table. The **ultraviolet** germicidal lamp is always sterilizing the medical apparatus, so that the medical apparatus is kept in a sterile state and the wound infection is avoided.

22/134 © EPODOC / EPO

PN - [US2018161594](#) A1 20180614

PNFP - US10265540 B2 20190423

PR - US201815893444 20180209; US201615266429 20160915; WO2016US51785 20160914; US201562219768P 20150917

AP - US201815893444 20180209

DT - **

CCI - [A61L2/10](#) ; [A61L2/26](#) ; [A61N5/0616](#) ; [A61N5/0618](#) ; [A61N5/0624](#) ; [H04B1/3888](#) ; [H04M1/17](#) ; [H04M1/185](#) ; [H04M1/21](#)

CCA - [A61L2202/11](#) ; [A61L2202/14](#) ; [A61L2202/16](#) ; [A61N2005/0626](#) ; [A61N2005/0642](#) ; [A61N2005/0644](#) ; [A61N2005/0652](#) ; [A61N2005/0659](#) ; [A61N2005/0661](#) ; [A61N2005/0662](#) ; [A61N2005/0663](#)

CI - A61L2/10 (EP, US)

- A61L2/26 (EP, US)

- A61N5/0616 (EP, US)

- A61N5/0618 (EP, US)

- A61N5/0624 (EP, US)

- H04B1/3888 (EP, US)

- H04M1/17 (EP, US)

- H04M1/185 (EP, US)

- H04M1/21 (EP, US)

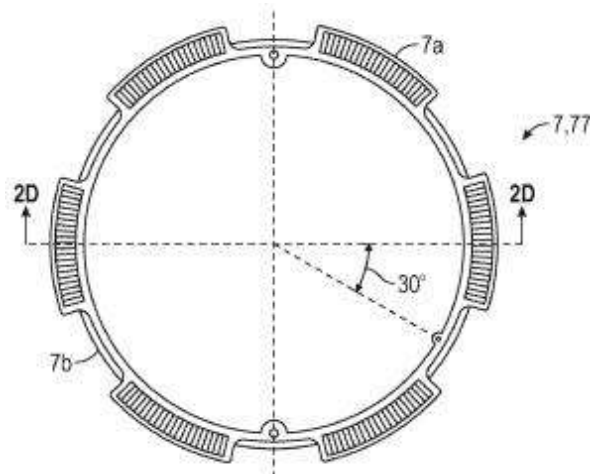
CA - A61L2202/11 (EP, US)

- A61L2202/14 (EP, US)

	- A61L2202/16 (EP, US) - A61N2005/0626 (EP, US) - A61N2005/0642 (EP, US) - A61N2005/0644 (EP, US) - A61N2005/0652 (EP, US) - A61N2005/0659 (EP, US) - A61N2005/0661 (EP, US) - A61N2005/0662 (EP, US) - A61N2005/0663 (EP, US)
PA	- (A1 B2) ETS TECH LLC [US]
TI	- (A1) MOBILE DEVICE CASE WITH ULTRAVIOLET LIGHT SANITIZER AND LIGHT THERAPY - (B2) Mobile device case with ultraviolet light sanitizer and light therapy
AB	- (A1 B2) A protective case for a mobile electronic device is provided. The case includes at least one light emitting diode that emits electromagnetic radiation in the range of UV-C light for sanitizing contaminated surfaces. The case also includes additional LEDs that emit light at wavelengths known to have a therapeutic effect such as a blue light for treating seasonal affective disorder. The LEDs are provided in a separate encasement that is detachable from the protective cover configured to receive and protect the mobile electronic device. A short-range wireless receiver is included to communicate with an application installed on the mobile electronic device for controlling the activation, intensity, duration and mode of the LEDs including predetermined treatment or sanitization protocols.

23/134 © EPODOC / EPO

PN	- US2018162748 A1 20180614
PNFP	- US10479705 B2 20191119
PR	- US201715797370 20171030; US201662416156P 20161101
AP	- US201715797370 20171030
DT	- *, Rep
CT	- R141 (A1) US2008095661 A1 20080424 [] (KOHLE GUIDO [CH]) - STSE (A1) US2008095661 A1 20080424 [A] (KOHLE GUIDO [CH]) - STSE (B2) US2008095661 A1 20080424 [] (KOHLE GUIDO [CH])
CCI	- C02F1/325
CCA	- C02F2103/42 ; C02F2201/32 ; C02F2201/3223
CI	- C02F1/32 (US) - C02F1/325 (EP) - C02F1/78 (US)



CA	- C02F2103/42 (EP, US) - C02F2201/32 (EP) - C02F2201/3223 (EP) - C02F2201/3226 (US)
PA	- (A1 B2) CUSTOM MOLDED PRODUCTS LLC [US]
TI	- (A1) ILLUMINATED VENTILATION RING FOR A UV-LIGHT WATER SANITIZER - (B2) Illuminated ventilation ring for a UV-light water sanitizer
AB	- (A1 B2) A ventilation ring for a UV water sanitizer unit that allows for adequate ventilation of heat generated by electronic components while sequestering those electronic components from water. The ring can also be made of a transparent or translucent material to allow a user to detect whether a UV lamp within the housing is operating. An improved nut for affixing a quartz tube within such a unit and improved design for draining the unit are also disclosed.

24/134 © EPODOC / EPO

PN	- KR20180047840 A 20180510	.
PNFP	- KR101857182B B1 20180511	
PR	- KR20160144606 20161101	
AP	- KR20160144606 20161101	
DT	- I	
CI	- A47B77/06 (KR) - A61L2/10 (KR) - A61L2/26 (KR)	
CA	- A61L2202/14 (KR)	
PA	- (A) GWANG JIN CO LTD [KR]	
TI	- (A B1) Sink sanitizer	
AB	- (A) The present invention relates to a sink sterilizer and, more specifically, to a sink sterilizer which is installed on a lower side of a shelf, separately installed on an upper portion of a sink, to emit UV rays toward the faucet of the sink and can automatically control emission of UV rays by a motion sensor. The sink sterilizer comprises: a main body (100) which is installed on the lower side of the shelf (S) separately installed on	

the upper portion of the sink; a rotation unit (200) which is installed on the main body (100), has one side installed to be able to be rotated by a rotation member (210) as a mediator, and has the other side facing the faucet of the sink when the rotation unit is rotated; at least one motion sensor (300) which is installed on one side of the outer surface of the rotation unit (200) to sense a human body; and a sterilization lamp (400) which is installed on the other side of the rotation unit (200) and sterilizes the sink by emitting **UV** rays to the faucet of the sink when the rotation unit is rotated.

25/134 © EPODOC / EPO

PN - [CN108056853](#) A 20180522
 PR - CN201610970927 20161107
 AP - CN201610970927 20161107
 DT - I
 CI - A61F9/0017 (CN)
 CA - A61F2240/001 (CN)
 PA - QINGDAO SHIJI YUNFAN IND CO LTD
 TI - Manufacturing and mounting process for eyedrop droplet funnel
 AB - Provided is a manufacturing and mounting process for an eyedrop droplet funnel. The process comprises: selecting high-grade food-grade plastic particles to perform injection molding in a special die of an injection molding machine, to form a transparent funnel with a diversion pipe, and an eyeshade; removing burrs on surfaces of the diversion pipe, the funnel, and the eyeshade, performing finishing polish; using a **sanitizer** to disinfect and sterilize the diversion pipe, the funnel, and the eyeshade; assembling the diversion pipe, the funnel, and the eyeshade in an integrated body; performing integrated inspection; illuminating the eyedrop droplet funnel by **ultraviolet** light to sterilize, and packaging. The manufacturing and mounting process for an eyedrop droplet funnel can perform production mounting in order according to specifications, to ensure manufacturing quality and requirement of products and reduce unrelated and unnecessary steps. The process saves raw materials and reduces cost, and a processing mounting production process keeps on the rails and is safe and in order.

26/134 © EPODOC / EPO

PN - [CN207152799U](#) U 20180330
 PR - CN20172002879U 20170103
 AP - CN20172002879U 20170103
 DT - I
 PA - THE PEOPLES HOSPITAL OF HEBI
 TI - Medical decontaminated apparatus
 AB - The utility model relates to medical equipment sterile auxiliary device's technical field especially relates to a medical decontaminated apparatus, and it can carry out water cleaning and disinfectingsimultaneously, reaches by heating water and puts into the **sanitizer** in aqueous and carry out degree of depth disinfection, improves the disinfection effect, including first main part, the inside offirst main part is provided with places the chamber, is provided with **ultraviolet** lamp and ozone generator on placing the intracavity wall, and the below of first main part is provided with first support frame, is provided with first getting on the leading flank of first main part and puts the mouth, and first getting is put a mouthful department and be provided with shutter, and first getting isput mouthful and is placed the chamber and communicate with each other, still include second main part and water tank, the inside of second main part is provided with the working chamber, and the topof second main part is

provided with the motor to the output is provided with the transmission shaft in the bottom of motor, is provided with the stirring leaf on the transmission shaft, is provided with multiunit electric heating pipe in the working chamber, and the top of second main part is provided with the second and gets and put the mouth, and gets at the second and put a mouthful department and be provided with and keep off the lid, still include cleaning agent tank.

27/134 © EPODOC / EPO

- PN - [CN207090398U](#) U 20180313
- PR - CN20172140572U 20170819
- AP - CN20172140572U 20170819
- DT - I
- PA - ANHUI YILE FOOD CO LTD
- TI - Instant noodle conveying net belt cleaning device
- AB - The utility model discloses an instant noodle conveying net belt cleaning device, include: transmission bracket, **sanitizer** sprinkler, roll brush, hot water flushing device, **ultraviolet** germicidal device, the last roll connection of transmission bracket conveys the net, transmission bracket one end fixed connection **sanitizer** sprinkler, **sanitizer** sprinkler sets up in the conveying on the net square, **sanitizer** sprinkler right side is equipped with the roll brush, roll brush quantity is two, connects respectively in transmission bracket top and below, roll brush right side is equipped with hot water flushing device, hot water flushing device sets up in the conveying on the net square, hot water flushing device fixed connection is on transmission bracket, hot water flushing device right side is equipped with **ultraviolet** germicidal device, **ultraviolet** germicidal device sets up in the conveying on the net square, **ultraviolet** germicidal device and transmission bracket fixed connection, the utility model has the advantages of simple structure and reasonable design, the cleaning performance is good, the bactericidal effect is good, efficient.

28/134 © EPODOC / EPO

- PN - [CN107773498](#) A 20180309
- PR - CN201711234633 20171130
- AP - CN201711234633 20171130
- DT - I
- CI - A61K8/34 (CN)
- A61K8/345 (CN)
- A61K8/64 (CN)
- A61K8/678 (CN)
- A61K8/922 (CN)
- A61K8/97 (CN)
- A61Q17/005 (CN)
- A61Q19/00 (CN)
- A61Q19/10 (CN)
- PA - WP SAFETY TECH XUZHOU CO LTD
- TI - A bacteriostatic skincare hand **sanitizer** and a preparing method thereof
- AB - The invention discloses a bacteriostatic skincare hand **sanitizer** and a preparing method thereof, and belongs to the technical field of hygienic products. Raw materials of the hand **sanitizer** include 70-100 parts of deionized water, 50-80 parts of olive oil, 60-90 parts of honeysuckle bud and flower, 30-60 parts of essence, 70-100 parts of pigment, 20-50 parts of white vinegar, 20-50 parts of white granulated sugar, 30-60

parts of a surfactant, 20-50 parts of a water softening agent, 10-30 parts of an aseptic, 20-50 parts of gluten powder, 30-60 parts of a bacteriostatic agent, 30-70 parts of an anti- **ultraviolet** solvent, 20-50 parts of an antistatic agent, 10-20 parts of menthol, 10-20 parts of a milk protein solution, 10-20 parts of an aloe extract product, 5-10 parts of a moisturizing emollient and 10-20 parts of a bacteriostatic agent. The hand **sanitizer** causes no influence on human skin, can effectively protect hands and has bacteriostatic and skincare effects.

29/134 © EPODOC / EPO

PN - [CN206950131U](#) U 20180202
 PR - CN201720183660U 20170223
 AP - CN201720183660U 20170223
 DT - I
 PA - QINGDAO VOCATIONAL AND TECHNICAL COLLEGE OF HOTEL MAN
 TI - Shallow is clean to hotel's health
 AB - Shallow is clean to hotel's health, it relates to the cleaning device technical field of hotel, it contains that bottom plate, support, truckle, **sanitizer** bucket place that district, stock form placethe district, put the thing board, roof, **ultraviolet** lamp, the fixed knot of burnisher, couple, disposal bag, the bottom plate on be connected with the support, the support falls into the **sanitizer** bucket with the bottom plate to be placed district and stock form and places the district, the top that the district was placed to the stock form is provided with puts the thing board, the top of putting the thing board is provided with the roof, top and the bottom of putting the thing board be provided with **ultraviolet** lamp, the side of roof is provided with that a plurality of burnishers are fixedto be detained and the couple, is fixed with the disposal bag on the roof. Shallow is clean to hotel's health, help putting into different categories, can not cross infection, to the exposed spare parts function of disinfecting, the shallow environment is clean and tidy, the utility model has the advantages of simple structure, set up reasonable, the cost of manufacture low.

30/134 © EPODOC / EPO

PN - [WO2018035338](#) A1 20180222
 PR - US201615241814 20160819
 AP - WO2017US47368 20170817
 DT - *; Rep
 CT - [KR] ISR (A1)
[US2015290346](#) A1 20151015 [XY] (KASSEL ROBERT [US], et al)
 [X] 1-5, 8-17
 * See claims 1-12; paragraphs [0016]-[0024]; figures 1-6. *
 [Y] 6-7;
[US9272058](#) B1 20160301 [Y] (MONTGOMERY MICHAEL W [US])
 [Y] 6-7
 * See claim 1; column 5, lines 54-55; figure 1. *;
[US7875869](#) B1 20110125 [A] (SHADAN KAMYAR [US])
 [A] 1-17
 * See the entire document. *;
[US8641353](#) B2 20140204 [A] (ALGHAMDI MOHAMMAD ALISSAN [SA])
 [A] 1-17
 * See the entire document. *;
[US2014241941](#) A1 20140828 [A] (KREITENBERG ARTHUR [US])
 [A] 1-17
 * See the entire document. *

CCI - [A47L23/02](#) ; [A47L23/22](#)
CI - A47L23/02 (EP)
- A47L23/22 (EP)
- A61L2/10 (EP)
PA - HEALTHY SOLE LLC [US]
TI - SANITIZING DEVICE
AB - The shoe sole **sanitizer** (100) provides a **UV** radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing (111) containing at least one **UV** radiation source (134). Bottom and side portions of the housing (111) are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes (104a, 104b) forming an approximate shape of two shoe sole bottoms. The holes (104a, 104b) allow the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang (102) that extends therefrom. Shutters (119) attached internally to the tangs (102) extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on top. The system is powered by standard AC electrical power or battery sources.

31/134 © EPODOC / EPO

PN - [CN206705873U](#) U 20171205
PR - CN201720540515U 20170516
AP - CN201720540515U 20170516
DT - I
CCA - [Y02W10/37](#)
CA - Y02W10/37 (EP)
PA - LIU BIN
TI - Portable solar power type water purifier
AB - The utility model discloses a portable solar power type water purifier, include case lid, rod structure, box, solar cell panel, cross STREAMING **ultraviolet** sterilization ware, primary filter and **sanitizer** storage box, the case lid is installed on the box, box one side is provided with rod structure, the case lid inboard is provided with solar cell panel, box one side is provided with the inlet tube, primary filter's delivery port and cross the water inlet of STREAMING **ultraviolet** sterilization ware between lead to pipe sealing connection, and cross STREAMING **ultraviolet** sterilization ware and the cold water pipe between magnetic exchange valve's the water inlet of delivery port and hot - water tank between logical pipe sealing connection, lead to pipe sealing connection between the water inlet of the magnetic exchange valve's on the water pipe between hot -water tank and the water pump B delivery port and recoil water pump, and recoil and install the backflush valve on the water pipe between water pump and the **sanitizer** storage box. The utility model discloses novel structure, control is convenient, light high -usage, portable.

32/134 © EPODOC / EPO

PN - [US2017333618](#) A1 20171123

PR - US201715468254
20170324; US201662339984P
20160523

AP - US201715468254 20170324

DT - *, Rep

CT - || R141 (A1)
[US2015374867](#) A1 00000000 []

CCI - [A61L2/10](#) ; [A61M5/001](#)

CCA - [A61L2/26](#) ; [A61L2202/11](#) ;
[A61L2202/16](#) ; [A61L2202/23](#) ;
[A61M2205/8206](#) ;
[A61M2209/084](#)

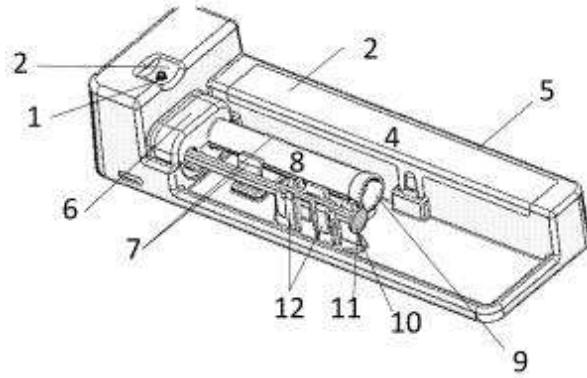
CI - A61L2/10 (EP, US)
A61M5/001 (EP, US)

CA - A61L2/26 (EP, US)
A61L2202/11 (EP, US)
A61L2202/16 (EP)
A61L2202/23 (EP)
A61M2205/8206 (EP, US)
A61M2209/084 (EP, US)

PA - KROHN ERIC ROBERT [US];
KERBER WAYNE [US]

TI - PORTABLE **UV-C**
SYRINGE **SANITIZER**

AB - A portable syringe **sanitizer** kit has a longitudinal housing having a sanitization area, a compartment for retaining at least one source of electricity, and mechanisms for retaining a needle, barrel, and plunger of a syringe. A source of germicidal radiation, such as a **UV-C** light, is disposed in the housing, the source of germicidal radiation being electrically connected to a source of electricity, such as one or more batteries. A switch operatively connected to the source of electricity and to the source of germicidal radiation can initiate activation of the radiation. A syringe holder tube and a mechanism for retaining a syringe plunger are also provided. The source of germicidal radiation generates light having a wavelength of between approximately 200 nm and 280 nm. The housing is



mounted in an eyeglass case. A timing device de-energizes the source of radiation after a predetermined interval of time.

33/134 © EPODOC / EPO

- PN - [CN206285021U](#) U 20170630
- PR - CN20162114971U 20160831
- AP - CN20162114971U 20160831
- DT - I
- PA - ZHOU CAIXIANG
- TI - Sanitary washing unit of **ultraviolet** sterilization
- AB - The utility model belongs to the technical field of the sanitary bath equipment, a sanitary washing unit of **ultraviolet** sterilization is provided, including wash the body and with the water control valve that washes this body coupling, wash the body include the water inlet segment, with the water outlet pipe section of water inlet segment intercommunication and with the **ultraviolet** sterilization pipeline section of water outlet pipe section intercommunication, the **UV** of **ultraviolet** sterilization pipeline section in the body and arranging in of disinfecting disinfects the body C **ultraviolet** fluorescent tube. The utility model discloses a control water control valve, under water control valve's effect, from the washing water that the water inlet segment got into, the water outlet pipe section that flows through, then through the **ultraviolet** sterilization pipeline section, when wasing water and wash human body region, the **UV** that sends in the **ultraviolet** sterilization pipeline section the C **ultraviolet** ray is disinfected simultaneously and is disinfected, and is consequently clean more thorough, and can reach bactericidal effect under the circumstances of not using the **sanitizer**.

34/134 © EPODOC / EPO

- PN - [CN106659810](#) A 20170510
- PNFP - CN106659810B B 20190924
- PR - US201414249185 20140409; WO2015US25071 20150409
- AP - CN20158018286 20150409
- DT - I
- CT - || STSE (A)
[CN2448279Y](#) Y 20010919 [A] (LUO XIAOMING [CN])
 [A] 1-13
 * 全文 *;
[CN1819949](#) A 20060816 [A] (TETRA LAVAL HOLDIGNS & FINANCE [CH])
 [A] 1-13
 * 全文 *;
[CN101400373](#) A 20090401 [A] (SHOE CARE INNOVATIONS INC [US])
 [A] 1-13
 * 全文 *;
[US8973197](#) B2 20150310 [A] (OMIDI JULIAN [US])
 [A] 1-13
 * 全文 *
- CCI - [A47L23/02](#) ; [A61L2/10](#)
- CCA - [A61L2202/26](#)
- CI - A47L23/02 (EP, US)
 - A61L2/10 (EP, ES, US)
 - A61L2/202 (US)

	- A61L2/24 (US)
CA	- A61L2202/26 (EP, US)
PA	- (A) HEALTHY SOLE LLC; KASSEL ROBERT; HOLLANDER BRAD
TI	- (A) Sanitizing device
AB	- (A) The shoe sole sanitizer (100) provides a UV radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing (111) containing at least one UV radiation source (134). Bottom and side portions of the housing (111) are opaque to provide a UV shield while directing the UV upward towards a top housing portion. The top housing portion has a plurality of holes (104a, 104b) forming an approximate shape of two shoe sole bottoms. The holes (104a, 104b) allow the UV radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang (102) that extends therefrom. Shutters (119) attached internally to the tangs (102) extend or limit UV exposure from the top surface depending on the size of the sole disposed on top. The system is powered by standard AC electrical power or battery sources.

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PN	- CN206128234U U 20170426
PR	- CN201620546161U 20160607
AP	- CN201620546161U 20160607
DT	- I
PA	- GUANGZHOU OTOL CERAM CO LTD
TI	- Intelligent closetool
AB	- The utility model discloses an intelligent closetool, including closetool main part and water tank, be provided with the toilet lid in the closetool main part, the toilet lid bottom is provided with the ultraviolet ray disinfection lamp, be provided with touch display screen and singlechip on the water tank, inside waste water storehouse, clear water bin, sanitizer storage storehouse and the sanitizer sump of being provided with of water tank, storehouse and sanitizer sump intercommunication are stored to the sanitizer , inside catchment passageway and the air -supply line of being provided with of closetool main part, waste water storehouse, clear water bin and sanitizer sump all communicate with the passageway that catchments, waste water storehouse, clear water bin and sanitizer sump all are provided with the solenoid valve with the passageway intercommunication department that catchments, this intelligent closetool cleans conveniently and has the stoving function.

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PN - [US2017086560](#) A1 20170330

PR - IN2015DEL3031 20150924

AP - US201615269572 20160919

DT - *, Rep

CT - || STSE (A1)

[US2014217307](#) A1 20140807
[Y] (MESSINA GABRIELE [IT], et al)
[Y] 1-2, 4-6, 8-20
* Figure 4 | *;

[US7560706](#) B1 20090714
[Y] (CASTELLUCCIO DANIEL [US])
[Y] 1-2, 4-6, 8-20
* Col 4 Lines 1-5 | Col 3 Lines 63-67 | Col 1 Lines 15-24 | Col 3 Lines 35-39 | Col 4 Line 45 | Col 3 Line 63 | Figure 3b | Figure 2 Col 3 Lines 35-39 | claim 4 | claim 1 | Col 4 Line 64 | Figure 7 | claim 8 | Col 3 Lines 28-33 | Col 4 Lines 15-16 | claim 11 | Figure 4 | Col 3 Lines 24-26 | Col 3 Lines 24-34 | claim 14 | claim 15 | claim 19 | *;

[US2015226481](#) A1 20150813
[Y] (MARCHIORI DAVID [US])
[Y] 8-14, 17-20
* Paragraph 0098 | *;

[US2005231835](#) A1 20051020
[Y] (TOKUSHITA TAKAYUKI [JP], et al)
[Y] 9-10, 15, 17-20
* Paragraphs 0024 and 0021 | Figure 35 | *;

[US2014150189](#) A1 20140605
[Y] (SHIGENO TAKASHI [JP], et al)
[Y] 12-13
* Figure 26 Paragraph 0039 | Paragraph 0039 *;

[US2013256560](#) A1 20131003
[Y] (YERBY EARL [US])
[Y] 14, 19
* Paragraph 0042 *;

[US2011100865](#) A1 20110505
[A] (BRINK JAYNE ALYCE [US], et al)

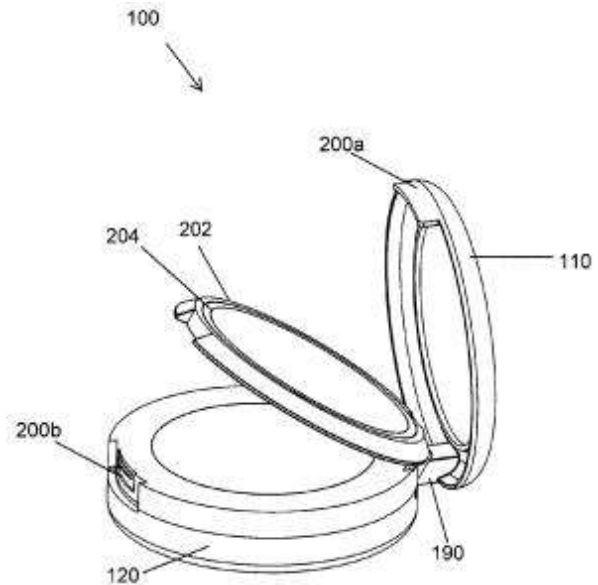
- || R141 (A1)

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[US2011100865](#) A1 20110505 [Y] (BRINK JAYNE ALYCE [US], et al);

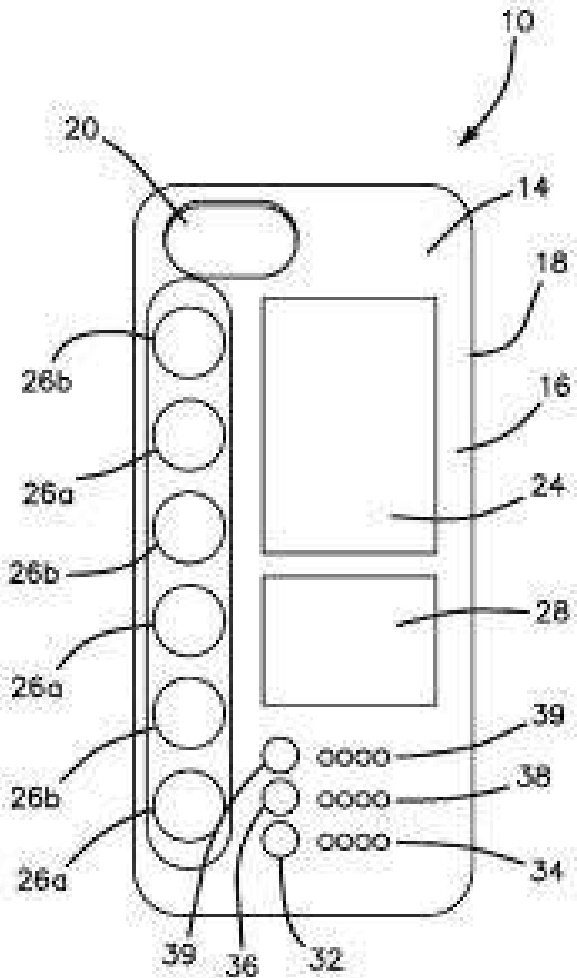
[US2005231835](#) A1 20051020 [Y] (TOKUSHITA TAKAYUKI [JP], et al);

[US2014150189](#) A1 20140605 [



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CCI	-	A45D33/006 ; A45D33/32 ; A45D40/18 ; H02J7/0042 ; H02J7/0047
CCA	-	A45D33/24
CI	-	A45D33/006 (EP, US) A45D33/24 (US) A45D33/32 (EP, US) A45D40/18 (EP, US) A45D40/222 (US) A61L2/10 (US) F21V33/004 (US) H02J7/0042 (EP) H02J7/0047 (EP, US) H05K7/1427 (US)
CA	-	A45D33/24 (EP) A61L2202/11 (US) A61L2202/14 (US) F21Y2113/17 (US) F21Y2115/10 (US)
PA	-	ZEN DESIGN SOLUTIONS LTD [HK]
TI	-	COSMETIC CASE
AB	-	The present disclosure relates to a cosmetic case, including: a cover, a base, an applicator, a sanitizer which emits ultraviolet rays for sanitizing the applicator, a wave deflector, a power supply for supplying power to the sanitizer , and at least one indicator which is provided to indicate operation conditions of the sanitizer . The sanitizer emits ultra violet rays for a predetermined amount of time for sanitizing the applicator. Further, the cosmetic case includes a micro controller which controls operation conditions of the sanitizer .

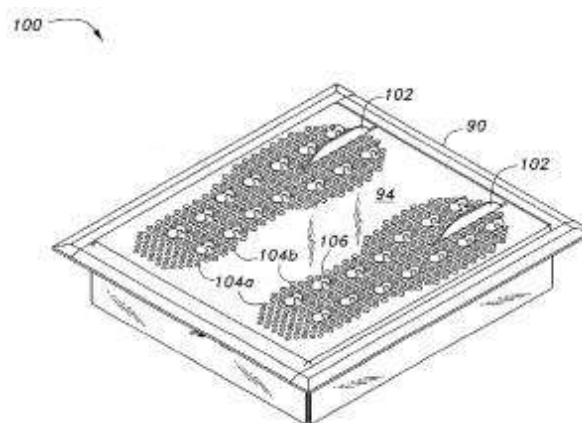
PN - [US2017080251](#) A1 20170323
 PNFP - US9925390 B2 20180327
 PR - US201615266429
 20160915; WO2016US51785
 20160914; US201562219768P
 20150917
 AP - US201615266429 20160915
 DT - *; Rep
 CT - || STSE (B2)
[US2008255498](#) A1 20081016 [
] (HOULE PHILIP R [US]);
[US2009142626](#) A1 20090604 [
] (ORITA NOBUAKI [JP], et al);
[US2011077061](#) A1 20110331 [
] (DANZE ALEX [US], et al);
[US2013201653](#) A1 20130808 [
] (SHOEMAKE ALLAN [US], et al);
[US2014001374](#) A1 20140102 [
] (ULLMAN ADAM [US]);
[US2015180527](#) A1 20150625 [
] (FATHOLLAHI ANDY [US]);
[US2015215439](#) A1 20150730 [
] (STANIMIROVIC STEVEN [US], et
 al);
[US2015231408](#) A1 20150820 [
] (WILLIAMS RICHARD K [US], et
 al);
[US2016036952](#) A1 20160204 [
] (KIM JONG RACK [KR], et al);
[US2016089458](#) A1 20160331 [
] (LIAO YITAO [US], et al);
[US2016106872](#) A1 20160421 [
] (MARTINEZ SETH [US]);
[US2016234356](#) A1 20160811 [
] (THOMAS TEDDY DAVID [US], et
 al)
 CCI - [A61L2/10](#) ; [A61L2/26](#) ;
[A61N5/0616](#) ; [A61N5/0618](#) ;
[A61N5/0624](#) ; [H04B1/3888](#) ;
[H04M1/17](#) ; [H04M1/185](#) ;
[H04M1/21](#)
 CCA - [A61L2202/11](#) ; [A61L2202/14](#) ;
[A61L2202/16](#) ;
[A61N2005/0626](#) ;
[A61N2005/0642](#) ;
[A61N2005/0644](#) ;
[A61N2005/0652](#) ;
[A61N2005/0659](#) ;
[A61N2005/0661](#) ;
[A61N2005/0662](#) ;
[A61N2005/0663](#)
 CI - A61L2/10 (EP, US)
 - A61L2/26 (EP, US)



	- A61N5/0616 (EP, US) - A61N5/0618 (EP, US) - A61N5/0624 (EP, US) - H04B1/3888 (EP, US) - H04M1/17 (EP, US) - H04M1/185 (EP, US) - H04M1/21 (EP, US)
CA	- A61L2202/11 (EP, US) - A61L2202/14 (EP, US) - A61L2202/16 (EP, US) - A61N2005/0626 (EP, US) - A61N2005/0642 (EP, US) - A61N2005/0644 (EP, US) - A61N2005/0652 (EP, US) - A61N2005/0659 (EP, US) - A61N2005/0661 (EP, US) - A61N2005/0662 (EP, US) - A61N2005/0663 (EP, US)
PA	- (A1 B2) ETS TECH LLC [US]
TI	- (A1) MOBILE DEVICE CASE WITH ULTRAVIOLET LIGHT SANITIZER AND LIGHT THERAPY - (B2) Mobile device case with ultraviolet light sanitizer and light therapy
AB	- (A1 B2) A protective case for a mobile electronic device is provided. The case includes at least one light emitting diode that emits electromagnetic radiation in the range of UV-C light for sanitizing contaminated surfaces. The case also includes additional LEDs that emit light at wavelengths known to have a therapeutic effect such as a blue light for treating seasonal affective disorder. The LEDs are provided in a separate encasement that is detachable from the protective cover configured to receive and protect the mobile electronic device. A short-range wireless receiver is included to communicate with an application installed on the mobile electronic device for

controlling the activation, intensity, duration and mode of the LEDs including predetermined treatment or sanitization protocols.

- 38/134** © EPODOC / EPO
- PN - [US2017035918](#) A1 20170209
- PNFP - US10064966 B2 20180904
- PR - US201615241814
20160819; US201514966771
20151211; US201414249185
20140409
- AP - US201615241814 20160819
- DT - *, Rep
- CT - || R141 (A1)
[US2014170019](#) A1 20140619 [
] (GIL PATRICIA CAROL [US], et al)
- || STSE (B2)
[US2014170019](#) A1 20140619 [
] (GIL PATRICIA CAROL [US], et al)
- CCI - [A47L23/02](#) ; [A61L2/10](#)
- CCA - [A61L2202/26](#)
- CI - A47L23/02 (EP, US)
A61L2/10 (EP, US)
- CA - A61L2202/26 (EP, US)
- PA - (A1)
HEALTHY SOLE LLC [US]
- (B2)
HEALTHY SOLE LLC [US]; HEALTHY
SOLE LLC [US]
- TI - (A1)
SANITIZING DEVICE
- (B2)
Sanitizing device
- AB - (A1 B2)
The shoe sole **sanitizer** provides a **UV** radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing containing at least one **UV** radiation source. Bottom and side portions of the housing are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes forming an approximate shape of two shoe sole bottoms. The holes allow



the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang that extends therefrom. Shutters attached internally to the tangs extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on the top. The system is powered by standard AC electrical power or battery sources.

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- PN - [CN106123136](#) A 20161116
- PR - CN201610544030 20160711
- AP - CN201610544030 20160711
- DT - I
- CT - || STSE (A)
[CN201143317Y](#) Y 20081105 [A] (DEWU SHEN [CN])
 [A] 1-4
 * 全文 *;
[CN101749811](#) A 20100623 [Y] (GUANGZHOU HEALTH AND HEALTH ME)
 [Y] 1-4
 * 说明书第[0016]-[0024]段及图1-2 *;
[JP2013257144](#) A 20131226 [A] (IRIS OHYAMA INC)
 [A] 1-4
 * 全文 *;
[CN104913383](#) A 20150916 [A] (ZHANG GUOZHU)
 [A] 1-4
 * 全文 *;
[CN204901983U](#) U 20151223 [Y] (ANHUI WEISIDUN INTELLIGENT SCIENCE & TECHNOLOGY CO LTD)
 [Y] 1-4
 * 说明书第[0011]-[0015]段及图1 *;
[CN205227522U](#) U 20160511 [A] (YU JUN)
 [A] 1-4
 * 全文 *;
[CN204709464U](#) U 20151021 [Y] (ZHANG SIXIA, et al)
 [Y] 1-4
 * 说明书第[0018]-[0028]段及图1 *
- CCA - [Y02A50/20](#) ; [Y02B30/70](#)
- CI - A61L9/015 (CN)
 - A61L9/20 (CN)
 - F24F3/1603 (CN)
 - F24F3/1607 (CN)
 - F24F3/166 (CN)
 - F24F11/30 (CN)
 - F24F13/28 (CN)
 - F24F2110/50 (CN)

CA - F24F2003/1614 (CN)
 - F24F2003/1625 (CN)
 - F24F2003/1667 (CN)
 - F24F2003/1675 (CN)
 - Y02A50/20 (EP)
 - Y02B30/70 (EP)

PA - ZHANG JINGWEN

TI - Air purification device for preventive medicine

AB - The invention discloses an air purification device for preventive medicine. The device comprises a casing, wherein a shielding net is arranged at one end of the casing; air outlets are formed in the other end of the casing; the air purification device for the preventive medicine comprises an air quality detector; the air quality detector transmits information to an intelligent controller when detecting abnormal air quality, the intelligent controller controls a first exhaust fan to exhaust air to enable the air to sequentially pass through the shielding net, an electrostatic air filter net and an activated carbon filter net, dust and peculiar smells in the air are filtered and removed by the electrostatic air filter net and the activated carbon filter net, the clean air is sterilized by **ultraviolet** sterilization lamps and then enters a **sanitizer** storage tank by the aid of a second exhaust fan, a **sanitizer** evaporated by an evaporator in the **sanitizer** storage tank and the air are mixed, then the mixture enters an air cavity by the aid of a duct and is blown by an air blower to return to the outside of the casing via the air outlets finally, and the **sanitizer** in the **sanitizer** storage tank can be added by the aid of a feeding pipe after being consumed.

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PN - [ES2589834](#) A2 20161116

PNFP - ES2589834 B2 20170313
 - ES2589834R R1 20161123

PR - US201414249185 20140409

AP - ES20160090048 20150409

DT - I

CT - || STSE (R1)
[US2012167325](#) A1 20120705 [] (OMIDI JULIAN [US]);
[US2010193709](#) A1 20100805 [] (DALTON LINDA M [SG]);
[US2008310996](#) A1 20081218 [] (KIM DARRICK S H L [US], et al);
[US2011020175](#) A1 20110127 [] (COLLARD GLEN SHELDON GERALD [CA], et al);
[US8241565](#) B1 20120814 [] (ABDUL BIBI RABBIA [US])

CCI - [A47L23/02](#) ; [A61L2/10](#)

CCA - [A61L2202/26](#)

CI - A47L23/02 (EP, US)
 - A61L2/10 (EP, ES, US)
 - A61L2/202 (US)
 - A61L2/24 (US)

CA - A61L2202/26 (EP, US)

PA - (A2 B2 R1)
 HEALTHY SOLE LLC [US]

TI - (A2)
 SANITIZING DEVICE

AB - (A2)
 The shoe sole **sanitizer** (100) provides a **UV** radiation emitting system that kills

microbial pathogens deposited on shoe sole surfaces. The system includes a housing (111) containing at least one **UV** radiation source (134). Bottom and side portions of the housing (111) are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes (104a, 104b) forming an approximate shape of two shoe sole bottoms. The holes (104a, 104b) allow the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang (102) that extends therefrom. Shutters (119) attached internally to the tangs (102) extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on top. The system is powered by standard AC electrical power or battery sources.

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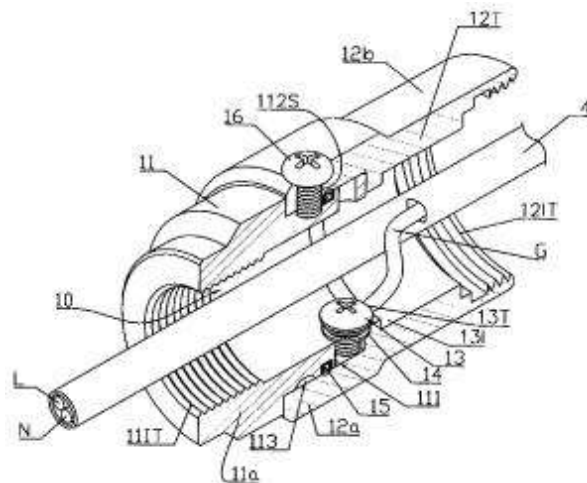
- PN - [WO2017048877](#) A1 20170323
- PR - US201562219768P 20150917
- AP - WO2016US51785 20160914
- DT - *; Rep
- CT - |US| ISR (A1)
[US2016089457](#) A1 00000000 [XPI] (LIAO YITAO [US] ET AL)
[XP] 1,2,5-13,15-19,25-27,30,32
* paragraphs [0006] - [0013] - [0020] - [0050]; figure -;
[I] 20-22
- |US| ISR (A1)
[US2016106872](#) A1 00000000 [XPI] (MARTINEZ SETH [US])
[XP] 1,5-7,10,13,15,17,25-27,30
* paragraphs [0007] , [0010] , [0011] - [0013] - [0019] - [0024] - [0038] - [0053]; figure -;
claim - *
[I] 20-22,32
- |US| ISR (A1)
[US2006183516](#) A1 00000000 [XI] (HAM BYUNG I [US])
[X] 1,2,5-13,17-19,25,30
* paragraphs [0006] - [0009] - [0022] - [0026] - [0028] - [0030] - [0038] - [0040]; figure -;
claim - *
[I] 20-22
- |US| ISR (A1)
[CN201733341U](#) U 00000000 [X] (CHUNLIN YE)
[X] 1,5,6,10,14,25-27,30
* the whole document *
- |US| ISR (A1)
[CN104125318](#) A 00000000 [X] (CHEN FEI)
[X] 1,5-7,10,17,25-27,30,32
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- |US| ISR (A1)
[KR101132762B](#) B1 00000000 [X] (LEE MYUNG SIN [KR])
[X] 1,2,5-10,14,17,18,25-27,30,32
* paragraphs [0004] - [0019] - [0025] , [0026] , [0033] - [0049]; figure -; claim - *
- CCI - [A45C11/00](#) ; [A61L2/084](#) ; [A61L2/085](#) ; [A61L2/10](#) ; [A61L2/26](#) ; [H04B1/3888](#)
- CCA - [A45C2011/002](#) ; [A45C2011/003](#) ; [A45C2200/15](#) ; [A61L2202/14](#) ; [A61L2202/16](#)
- CI - A45C11/00 (EP)
- A61L2/084 (EP)
- A61L2/085 (EP)
- A61L2/10 (EP)

	- A61L2/26 (EP)
	- H04B1/3888 (EP)
CA	- A45C2011/002 (EP)
	- A45C2011/003 (EP)
	- A45C2200/15 (EP)
	- A61L2202/14 (EP)
	- A61L2202/16 (EP)
PA	- ETS TECH LLC [US]
TI	- MOBILE DEVICE CASE WITH ULTRAVIOLET LIGHT SANITIZER AND LIGHT THERAPY
AB	- A protective case for a mobile electronic device is provided. The case includes at least one light emitting diode that emits electromagnetic radiation in the range of UV- C light for sanitizing contaminated surfaces. The case also includes additional LEDs that emit light at wavelengths known to have a therapeutic effect such as a blue light for treating seasonal affective disorder. The LEDs are provided in a separate encasement that is detachable from the protective cover configured to receive and protect the mobile electronic device. A short-range wireless receiver is included to communicate with an application installed on the mobile electronic device for controlling the activation, intensity, duration and mode of the LEDs including predetermined treatment or sanitization protocols.

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PNFP	- US9873621 B2 20180123
PR	- CN201520161125U 20150319
AP	- US201615072753 20160317
DT	- *; Rep
CT	- R141 (A1)

[US3672823](#) A 00000000 [];
[US4012321](#) A 00000000 [];
[US4141830](#) A 00000000 [];
[US4400270](#) A 00000000 [];
[US4482809](#) A 00000000 [];
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	US8685238 B2 00000000 [];
	US8890087 B2 00000000 [];
	US8926842 B2 00000000 [];
	US9017123 B2 00000000 [];
	US9023214 B2 00000000 [];
	US9040012 B2 00000000 [];
	US9079125 B2 00000000 [];
	US9296610 B2 00000000 [];
	US9371114 B2 00000000 []
CCI	- C02F1/325 ; H01R4/34
CCA	- C02F2201/3223 ; H02G3/22
CI	- C02F1/325 (EP, US) - H01R4/34 (EP, US)
CA	- C02F2201/3223 (EP, US) - H02G3/22 (EP, US)
PA	- (A1) SHEN KUI [CN]; WONDER LIGHT IND MACHINERY ELECTRONIC PRODUCTS CO LTD [HK] - (B2) SHEN KUI [CN]; WONDER LIGHT INDUSTRY MACHINERY ELECTRONIC PRODUCTS CO LTD [HK]
TI	- (A1) GROUNDING ASSEMBLY FOR AN ULTRAVIOLET WATER SANITIZER - (B2) Grounding assembly for an ultraviolet water sanitizer
AB	- (A1 B2) A grounding assembly for an ultraviolet water sanitizer with a power cable electrically connected to an ultraviolet lamp sanitizer within a metal chamber, a grounding wire portion of the power cable connected by ground connecting member within an interior chamber of a grounding assembly connected to the metal chamber so that the grounding wire is not exposed outside of

the water sanitizer.

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- PN - [NZ615842](#) A 20160826
- PR - WO2012US29276 20120315; US201161538528P 20110923; US201261596936P 20120209; US201161568957P 20111209; US201161452781P 20110315; US201161541637P 20110930; US201161491633P 20110531; US201161503203P 20110630; US201161546368P 20111012; US201161579993P 20111223
- AP - NZ20120615842 20120315
- DT - I
- CCI - [A61K8/0241](#) ; [A61K8/19](#) ; [A61Q19/00](#) ; [B82Y30/00](#) ; [B82Y40/00](#) ; [C01B32/184](#) ; [C01B32/186](#) ; [C01B32/192](#) ; [C01B32/205](#) ; [C01B32/21](#) ; [C01B32/225](#) ; [C01B32/23](#) ; [C10M103/02](#) ; [C10M177/00](#) ; [C22C33/00](#) ; [C22C33/006](#) ; [C22C38/00](#)
- CCA - [A61K2800/10](#) ; [A61K2800/28](#) ; [A61K2800/413](#) ; [A61Q17/04](#) ; [C10M2201/0413](#) ; [C10N2030/06](#) ; [F16D2300/06](#) ; [F16D2300/10](#) ; [Y10S977/734](#) ; [Y10S977/755](#) ; [Y10S977/843](#) ; [Y10S977/902](#)
- CI - A61K8/0241 (EP, US)
- A61K8/19 (EP, US)
- A61Q19/00 (EP, US)
- B01J13/0056 (US)
- B82B3/00 (KR)
- B82B3/0009 (KR)
- B82Y30/00 (EP, US)
- B82Y40/00 (EP, US)
- C01B32/184 (EP, US)
- C01B32/186 (EP, KR, US)
- C01B32/192 (EP, US)
- C01B32/194 (KR)
- C01B32/198 (KR)
- C01B32/205 (EP, US)
- C01B32/21 (EP, US)
- C01B32/225 (EP, US)
- C01B32/23 (EP, US)
- C10M103/02 (EP, KR, US)
- C10M125/02 (KR, US)
- C10M125/04 (US)
- C10M129/70 (US)
- C10M171/06 (US)
- C10M177/00 (EP, KR, US)
- C22C33/00 (EP, US)
- C22C33/006 (EP, US)
- C22C38/00 (EP, US)
- CA - A61K2800/10 (EP, US)
- A61K2800/28 (EP, US)
- A61K2800/413 (EP, US)
- A61Q17/04 (EP, US)
- C10M2201/041 (US)
- C10M2201/0413 (EP, KR, US)

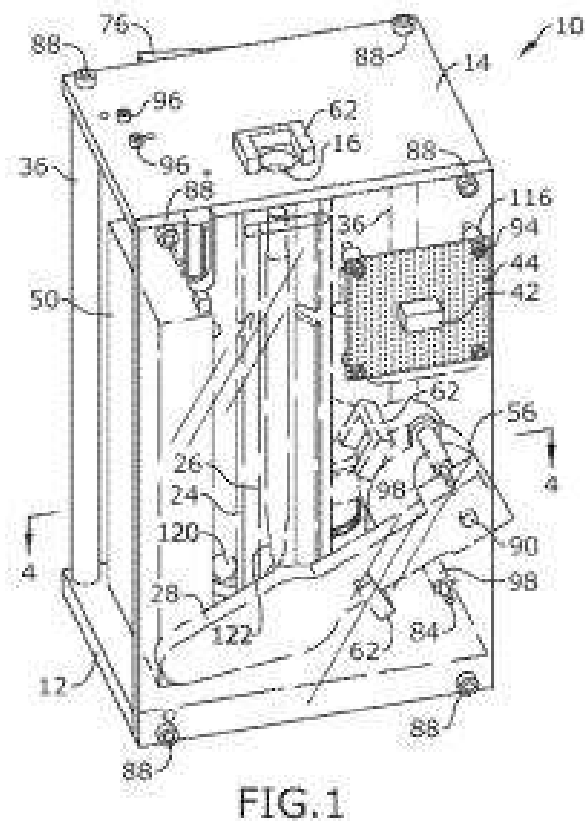
	- C10N2020/06 (US)
	- C10N2030/06 (EP, KR, US)
	- F16D2300/06 (EP, KR, US)
	- F16D2300/10 (EP, KR, US)
	- Y10S977/734 (EP, US)
	- Y10S977/755 (EP, US)
	- Y10S977/843 (EP, US)
	- Y10S977/902 (EP, US)
PA	- PEERLESS WORLDWIDE LLC
TI	- Facile synthesis of graphene, graphene derivatives and abrasive nanoparticles and their various uses, including as tribologically-beneficial lubricant additives
AB	- Disclosed is a lubricating composition for a mechanical system (such as an internal combustion engine), comprising: a) a base lubricant; and b) one or more carbon-containing additives. The carbon-containing additive may be a sugar, sucrose, graphite, a pyranose, a furanose, a cyclic carbomer, a benzenoid, a sugar, a sugar alcohol, a sugar substitute, a sugar derivative, a cyclomethicone, a steroid, a cinnamate, a phenylphoppanoid, a benzoate, a carboxylate, a benzopyran, a naturally-occurring or synthetic flavone or isoflavone, a salicylate, an antioxidant, a cyclic antioxidant, 4-vinylphenol, anthocyanidin, or chromenylum, a cyclic amino acid, a cyclohexane derivative, a benzene derivative, 1,2-dihydroxybenzene (catechol), 1,3-dihydroxybenzene (resorcinol), 1,4-dihydroxybenzene (hydroquinone), a naphthoate, an acrylate, a phthalate, a succinate, a carbate, a fluorophore, a pharmaceutical, a phosphate, a commercial edible personal/sexual lubricating composition including a sugar or sugar-substitute amphiphile, a commercial ultraviolet ray sunscreen formulation, a commercial skin cream formulation, a commercial hand sanitizer formulation, a commercial human or animal hair care product, a commercial hair dye formulation, a commercial pesticide, a compound that degrades to one or more of the above-mentioned additives during refluxing of the reaction mixture, or combinations thereof. When applied to the mechanical system, it is intended that the carbon-containing additive should be such that it is suitable for forming a tribologically-effective amount of at least one graphitic carbon-containing structure when the lubricating composition is exposed to heat sufficient to create locally pyrolytic conditions. At least some of the resultant graphitic carbon-containing structures comprise one or more surface-graphitized abrasive nanoparticles which having at least one non-carbon hetero-atom enveloped by an outer shell comprising substantially carbon, wherein the graphitic carbon-containing structure comprises a nano-polishing agent which may be able to remove asperities from an internal friction surface of the mechanical system.

44/134 © EPODOC / EPO

PN	- CN205474272U U 20160817
PR	- CN20162024340U 20160112
AP	- CN20162024340U 20160112
DT	- I
PA	- XUZHOU TENG YU DOWN PRODUCTS EQUIPMENT CO LTD
TI	- Eiderdown cleaning equipment with disinfection function
AB	- The utility model provides an eiderdown cleaning equipment with disinfection function, including purge chamber (1), motor (2), feed inlet (3), cradling piece (4), ultraviolet ray disinfection lamp (5), shift knob (6), water inlet (7), sanitizer box (8), discharge gate (9), discharge door (10), (mixing) shaft (11), blade (12), the hole that leaks (13), filter screen (14), decontamination mouthful (15), valve (16). Through installation ultraviolet ray

disinfection lamp on cleaning equipment, can wash simultaneously and disinfect, easy operation, cleaning and disinfecting go on simultaneously, have improved machining efficiency.

- 45/134** © EPODOC / EPO
- PN - [WO2016114883](#) A1 20160721
- PR - US201514851698
20150911; US201562103897P
20150115
- AP - WO2015US65390 20151211
- DT - *, Rep
- CT - [US] ISR (A1)
[US2014245866](#) A1 00000000
[XA] (Hadlock et al.)
[X] 1
*, entire document, especially
Figs. 1A-1B, paras. [0035],
[0038]. [0040] *
[A] 2-10;
[US2009148358](#) A1 00000000
[A] (Wind)
[A] 1-10
*, entire document *;
[US2009314956](#) A1 00000000
[A] (Long)
[A] 1-10
*, entire document *;
[US2004025899](#) A1 00000000
[A] (Pinsky)
[A] 1-10
*, entire document *;
[US6039928](#) A 00000000
[A] (Roberts)
[A] 1-10
*, entire document *
- CCI - [A61L2/10](#) ; [B43K31/00](#)
- CI - [A61L2/10](#) (EP, US)
- [B43K23/00](#) (US)
- [B43K31/00](#) (EP, US)
- PA - MCDOWELL KENNETH [US]
- TI - WRITING INSTRUMENT STORAGE
AND SANITIZATION APPARATUS
- AB - This invention relates to writing
instruments and methods and/or
devices for sanitizing them.
Previously, individuals are
required to wipe these writing
instruments with disinfectant
wipes and/or hand sanitizer
solution prior to each use.
Embodiments of the present
invention use a housing member



(10) having a slot (16) sufficiently large to permit the writing instrument to pass therethrough. A support assembly (12) is disposed within the housing member and has a transparent tubular member (26) that is configured to receive the writing instrument.

An **ultraviolet** lamp (78) is disposed within the housing member and configured to direct light generated by the lamp through the transparent tubular member to sanitize the writing instrument stored therein

46/134 © EPODOC / EPO

PN - [US2016089461](#) A1 20160331

PNFP - US9463258 B2 20161011

PR - US201514966771 20151211; US201414249185 20140409

AP - US201514966771 20151211

DT - **

CCI - [A47L23/02](#) ; [A61L2/10](#)

CCA - [A61L2202/26](#)

CI - A47L23/02 (EP, US)
- A61L2/10 (EP, ES, US)
- A61L2/202 (US)
- A61L2/24 (US)

CA - A61L2202/26 (EP, US)

PA - (A1)
HEALTHY SOLE LLC [US]
- (B2)
HEALTHY SOLE LLC [US]; HEALTHY SOLE LLC [US]

TI - (A1)
SANITIZING DEVICE
- (B2)
Sanitizing device

AB - (A1 B2)
The shoe sole **sanitizer** provides a **UV** radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing containing at least one **UV** radiation source. Bottom and side portions of the housing are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes forming an approximate shape of two shoe sole bottoms. The holes allow the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang that extends therefrom. Shutters attached internally to the tangs extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on the top. The system is powered by standard AC electrical power or battery sources.

47/134 © EPODOC / EPO

PN - [CN205035879U](#) U 20160217
PR - CN201520786404U 20151012
AP - CN201520786404U 20151012
DT - I
PA - LONG XU
TI - Electronic belt cleaning device of closetool
AB - The utility model discloses an electronic belt cleaning device of closetool, including toilet bowl body, closetool bedpan, toilet lid, its characterized in that: be equipped with the toilet lid fixed plate of being connected with the toilet lid in the toilet lid, be provided with electric water pump on the toilet lid fixed plate, the below of electric water pump's drain pipe is equipped with the spray pipe that extends lower part in the closetool bedpan, the lower extreme of spray pipe is equipped with two microscaler holes, the tangential direction of spray pipe is followed respectively to these two microscaler hole openings, the prosad tangential direction in microscaler hole, another microscaler hole tangential direction backward, the right of this electric water pump is equipped with the hair -dryer, the hair -dryer is equipped with the induced duct that extends closetool bedpan middle part, still be equipped with **ultraviolet** tube on the lower limb on toilet lid fixed plate both sides about, it adds pipeline and swinging boom still to be equipped with the **sanitizer**, lean on this device on the wall after having washd. The utility model has the advantages of simple structure, manufacturing capacity, sanitization health is used manpower sparingly, convenient to use and pollution -free.

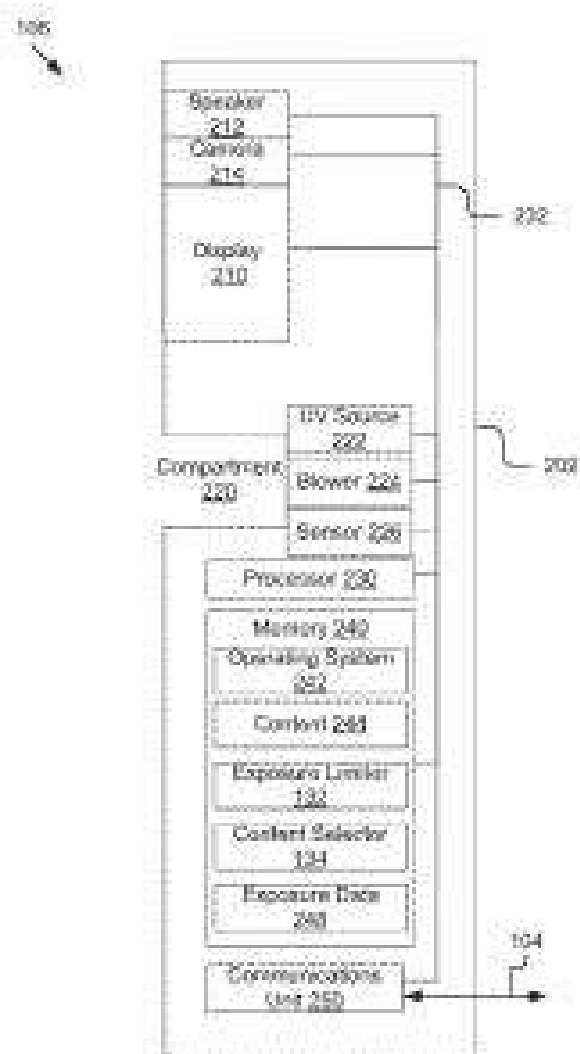
48/134 © EPODOC / EPO

PN - [WO2016019367](#) A2 20160204
PNFP - WO2016019367 A3 20160324
PR - US201462033144P 20140805; US201462032050P 20140801
AP - WO2015US43344 20150801
DT - **
CT - [US] ISR (A3)
[US2012156094](#) A1 20120621 [Y] (GORDON EUGENE I [US])
[Y] 1-20
* entire document especially Abstract, para [0042]-[0047], *;
[US2014015951](#) A1 20140116 [Y] (MILLIKAN THOMAS NATHAN [US])
[Y] 1-20
* entire document especially Abstract, para [0011], para [0040], para [0052] *;
[US2012187146](#) A1 20120726 [Y] (CHOPRA SAMEER [US])
[Y] 2-4, 6-8, 12-14, 16-18
* entire document especially Abstract, para [0031]-[0036] *;
[US2010266446](#) A1 20101021 [A] (CONSTANTACOS JIMMY [CA])
[A] 1-20
* entire document *
CCI - [A61N5/0624](#) ; [G06K9/00228](#) ; [G06K9/00375](#)
CCA - [A61N2005/0627](#) ; [A61N2005/0643](#) ; [A61N2005/0661](#)
CI - A61N5/0624 (EP, US)
- G06F3/011 (US)
- G06K9/00228 (EP)
- G06K9/00375 (EP)
CA - A61N2005/0627 (EP, US)

- A61N2005/0643 (EP, US)
- A61N2005/0661 (EP, US)
- PA - (A2 A3)
HYGENIA LLC [US]
- TI - (A2 A3)
HAND **SANITIZER** STATION
- AB - (A2 A3)
A system and method for detecting, using a sensor, an initiation event; capturing, using a camera, an image of a user's face responsive to the initiation event; activating, responsive to facial recognition and a determination based on one of exposure data associated with the user and the absence thereof that the user has not exceed a safe use standard for **ultraviolet** light, an **ultraviolet** source; the **ultraviolet** source and an activation duration sufficient to sanitize a surface located within a compartment. In one embodiment, visually presenting, by a display, a plurality of graphic elements associated with a plurality of potential content for presentation to the user; and presenting user selected content to the user when the **ultraviolet** source is activated and responsive to determining a user's selection, wherein the user's selection is made touch-lessly.

49/134 © EPODOC / EPO

- PN - [US2016030766](#) A1 20160204
- PNFP - US10702707 B2 20200707
- PR - US201514815993
20150801; US201462032050P
20140801; US201462033144P
20140805
- AP - US201514815993 20150801
- DT - *, Rep
- CT - || R141 (A1)
[US2016000951](#) A1 20160107 [
] (KREINER BARRETT M [US], et al);
[US2007222554](#) A1 20070927 [
] (HART ANDREW J [CA]);
[US9438869](#) B2 20160906 [
] (GILLIES MURRAY FULTON [NL],
et al);
[US2014330579](#) A1 20141106 [
] (CASHMAN STEVE [US], et al)
- || STSE (B2)
[US8884258](#) B1 20141111 [
] (LIAO YITAO [US], et al);
[US9438869](#) B2 20160906 [
] (GILLIES MURRAY FULTON [NL],
et al);
[US9934427](#) B2 20180403 [
] (DERENNE RICHARD A [US], et
al);
[US2007222554](#) A1 20070927 [
] (HART ANDREW J [CA]);
[US2012075464](#) A1 20120329 [
] (DERENNE RICHARD A [US], et
al);



[US2014244344](#) A1 20140828 [] (BILET MAXIME JEAN JEROME [US], et al);
[US2014330579](#) A1 20141106 [] (CASHMAN STEVE [US], et al);
[US2016000951](#) A1 20160107 [] (KREINER BARRETT M [US], et al);
[US2017213079](#) A1 20170727 [] (HERGER LORRAINE M [US], et al);
[US2017364091](#) A1 20171221 [] (BENNETT JAMES DUANE [CZ], et al);
[US2018357886](#) A1 20181213 [] (TAVORI ISAAC [IL], et al)

CCI - [A61N5/0624](#) ; [G06K9/00228](#) ; [G06K9/00375](#)

CCA - [A61N2005/0627](#) ; [A61N2005/0643](#) ; [A61N2005/0661](#)

CI - A61N5/0624 (EP, US)
 - G06F3/011 (US)
 - G06K9/00228 (EP)
 - G06K9/00375 (EP)

CA - A61N2005/0627 (EP, US)
 - A61N2005/0643 (EP, US)
 - A61N2005/0661 (EP, US)

PA - (A1)
 HYGENIA LLC [US]
 - (B2)
 CP STUDIOS LLC [US]

TI - (A1)
 Hand **Sanitizer** Station
 - (B2)
 Hand **sanitizer** station

AB - (A1 B2)
 A system and method for detecting, using a sensor, an initiation event; capturing, using a camera, an image of a user's face responsive to the initiation event; activating, responsive to facial recognition and a determination based on one of exposure data associated with the user and the absence thereof that the user has not exceed a safe use standard for **ultraviolet** light, an **ultraviolet** source; the **ultraviolet** source and an activation duration sufficient to sanitize a surface located within

a compartment. In one embodiment, visually presenting, by a display, a plurality of graphic elements associated with a plurality of potential content for presentation to the user; and presenting user selected content to the user when the **ultraviolet** source is activated and responsive to determining a user's selection, wherein the user's selection is made touchlessly.

50/134 © EPODOC / EPO

- PN - [IN2575MUMNP2014](#) A 20150724
- PR - US201261689167P 20120530; WO2013US43485 20130530
- AP - IN2014MUMNP2575 20141218
- DT - I
- CCI - [C02F1/325](#) ; [C02F1/78](#)
- CCA - [C02F2201/3221](#) ; [C02F2201/3227](#) ; [C02F2201/3228](#) ; [C02F2201/784](#)
- CI - C02F1/325 (EP, US)
- C02F1/78 (EP, US)
- CA - C02F2201/3221 (EP, US)
- C02F2201/3227 (EP, US)
- C02F2201/3228 (EP)
- C02F2201/784 (EP, US)
- C02F2303/04 (US)
- PA - BARNES RONALD L [US]
- TI - **SANITIZERSYSTEM**
- AB - An enclosure 12) supports a water carrying tube (16) through which a flow of water to be sanitized passes. Water carrying tube (16) may be supported at each end by Venturis (24 26) mounted in ends of a housing (12). One or more **ultraviolet** lamps (14) extend along tube (16). Air tubes (62a 62b 72) are connected to Venturi suction ports (30) or an external use (Fig. 7) and have openings (64) therealong are oriented very close to the **ultraviolet** lamps (14) with openings (64) facing the **ultraviolet** tubes (14) in order to draw ozonated air directly from near the surface of the **ultraviolet** lamps (14). **Ultraviolet** lamps (14) may be pulsed with high power pulses of a frequency and duration determined by an air flow rate through the air tubes (62a 62b 72) in order to maximize ozone production. An external Venturi suction port may also be provided.

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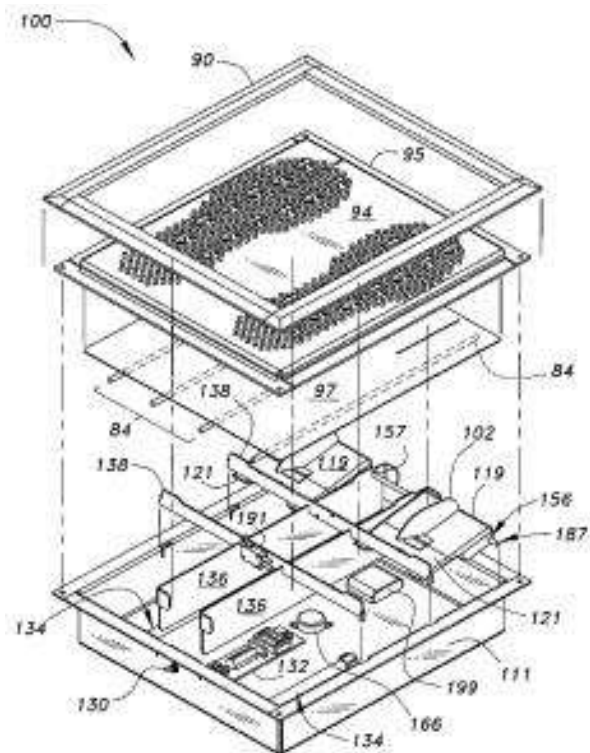
- PN - [WO2015157499](#) A1 20151015
- PR - US201414249185 20140409
- AP - WO2015US25071 20150409
- DT - **
- CT - |KR| ISR (A1)
[US2012167325](#) A1 20120705 [A] (OMIDI JULIAN [US])
[A] 1-13

* See abstract; paragraphs [0015]-[0018]; and figure 3. *;
[US8685318](#) B2 20140401 [A] (COLLARD GLEN SHELDON GERALD [CA], et al)
 [A] 1-13
 * See column 9, lines 26-40; figure 6A. *;
[US8241565](#) B1 20120814 [A] (ABDUL BIBI RABBIA [US])
 [A] 1-13
 * See column 4, lines 38-63; figures 1-3. *;
[US2008310996](#) A1 20081218 [A] (KIM DARRICK S H L [US], et al)
 [A] 1-13
 * See paragraphs [0227]-[0231]. *;
[US2010193709](#) A1 20100805 [A] (DALTON LINDA M [SG])
 [A] 1-13
 * See abstract; claims 1-22. *

- CCI - [A47L23/02](#) ; [A61L2/10](#)
- CCA - [A61L2202/26](#)
- CI - A47L23/02 (EP, US)
 - A61L2/10 (EP, ES, US)
 - A61L2/202 (US)
 - A61L2/24 (US)
- CA - A61L2202/26 (EP, US)
- PA - KASSEL ROBERT [US]; HOLLANDER BRAD [US]; HEALTHY SOLE LLC [US]
- TI - SANITIZING DEVICE
- AB - The shoe sole **sanitizer** (100) provides a **UV** radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing (111) containing at least one **UV** radiation source (134). Bottom and side portions of the housing (111) are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes (104a, 104b) forming an approximate shape of two shoe sole bottoms. The holes (104a, 104b) allow the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang (102) that extends therefrom. Shutters (119) attached internally to the tangs (102) extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on top. The system is powered by standard AC electrical power or battery sources.

PN - [US2015290346](#) A1 20151015
 PNFP - US9211352 B2 20151215
 PR - US201414249185 20140409
 AP - US201414249185 20140409
 DT - *, Rep
 CT - || STSE (B2)
 [US6231819](#) B1 20010515 [
] (MORELLO GERARD [FR]);
 [US2003030015](#) A1 20030213 [
] (WALUSZKO ALEX [US]);
 [US2010044582](#) A1 20100225 [
] (COOPER JONATHAN [US], et al)
 CCI - [A47L23/02](#) ; [A61L2/10](#)
 CCA - [A61L2202/26](#)
 CI - A47L23/02 (EP, US)
 A61L2/10 (EP, ES, US)
 A61L2/202 (US)
 A61L2/24 (US)
 CA - A61L2202/26 (EP, US)
 PA - (A1)
 HEALTHY SOLE LLC [US]
 (B2)
 HEALTHY SOLE LLC [US]; HEALTHY
 SOLE LLC [US]
 TI - (A1)
 SANITIZING DEVICE
 (B2)
 Sanitizing device
 AB - (A1 B2)

The shoe sole **sanitizer** provides a **UV** radiation emitting system that kills microbial pathogens deposited on shoe sole surfaces. The system includes a housing containing at least one **UV** radiation source. Bottom and side portions of the housing are opaque to provide a **UV** shield while directing the **UV** upward towards a top housing portion. The top housing portion has a plurality of holes forming an approximate shape of two shoe sole bottoms. The holes allow the **UV** radiation to escape the housing and target sole surfaces disposed on and over the exterior of the housing top. Each shoe sole approximation area has a pivotal tang that extends therefrom. Shutters attached



internally to the tangs extend or limit **UV** exposure from the top surface depending on the size of the sole disposed on the top. The system is powered by standard AC electrical power or battery sources.

53/134 © EPODOC / EPO

- PN - [CN204672211U](#) U 20150930
- PR - CN201520287563U 20150506
- AP - CN201520287563U 20150506
- DT - I
- PA - GANZHOU JINDONGMEN CHEMICAL CO LTD
- TI - Automatic remove flavor high speed dispersion machine
- AB - The utility model discloses an automatic remove flavor high speed dispersion machine, including dispenser organism, (mixing) shaft, dispersion impeller, motor and dispersion bucket. Dispenser organism upper end is equipped with exhaust apparatus, and exhaust apparatus includes box, inlet port, no. Two inlet ports and exhausts the hole greatly. Inside distinguish the flavor of **sanitizer** standing groove, **ultraviolet** lamp and the exhaust fan of being equipped with of box, the outside top surface of box is equipped with a cylinder, and the **sanitizer** standing groove that goes to distinguish the flavor of is equipped with the **sanitizer** of distinguishing the flavor of. The (mixing) shaft is equipped with the hopper -shaped cover of breathing in. Hopper -shaped breathes in cover inside by lower supreme spun yarn net, blower fan and the active carbon adsorption layer of being equipped with in proper order. Hopper -shaped breathes in the cover outside and is equipped with left bank gas pocket and right side exhaust hole, and this left bank gas pocket passes through blast pipe and an inlet port fixed connection, exhausts hole and pass through blast pipe and no. Two intake pipe fixed connection in this right side. The utility model has the advantages of it gives out a large amount of peculiar smell, avoids air pollution, is favorable to the staff healthy to avoid the high speed dispersion machine to stir the during operation material.

54/134 © EPODOC / EPO

- PN - [CA2837770](#) A1 20150630
- PR - CA20132837770 20131230
- AP - CA20132837770 20131230
- DT - *, Rep
- CCI - [A61L2/10](#)
- CI - A61L2/10 (EP)
- PA - TO QUANG QT [CA]
- TI - DRY HAND **SANITIZER**
- AB - This is a dry hand **sanitizer** that uses filtered 207nm wavelength Kr-Br **UV** excimer lamp bulbs. The user runs their hands through the device, which is activated by a laser-motion sensor. The user runs their hands through the device so as to have the **UV** light bathe the entire hand. The **UV** light emitted destroys the bacteria present on the hands. A recent study published concluded that a 207nm Kr-Br **UV** excimer lamp is sufficient enough to destroy drug-resistant bacteria, but is unlikely mutagenic to humans. The intent is to reduce water consumption and waste (paper towels).

55/134 © EPODOC / EPO

PN - [US2015184368](#) A1 20150702

PNFP - US9689156 B2 20170627

PR - US201514656317 20150312; US20090619997 20091117

AP - US201514656317 20150312

DT - **

CT - || R141 (A1)
[US4204285](#) A 00000000 [];
[US4558473](#) A 00000000 []
 - || STSE (B2)
[US4204285](#) A 00000000 [];
[US4558473](#) A 00000000 []

CCI - [A47K13/10](#) ; [E03D1/01](#) ; [E03D9/08](#)

CCA - [Y10T29/49002](#)

CI - A47K13/10 (EP, US)
 - E03D1/01 (EP, US)
 - E03D9/005 (US)
 - E03D9/08 (EP, US)
 - E03D11/13 (US)

CA - Y10T29/49002 (EP, US)

PA - (A1 B2)
 KOHLER CO [US]

TI - (A1)
 PLUMBING FIXTURE HAVING MODULAR CONTROL HOUSING
 - (B2)
 Plumbing fixture having modular control housing

AB - (A1 B2)
 Disclosed is a plumbing fixture (e.g. a bidet or toilet) of the type having a frontal basin and means for directing a supply of water to the basin for cleaning the basin. The plumbing fixture includes a modular housing mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be selected from the group Consisting of light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls, deodorizer controls, audio device controls and **ultra violet sanitizer** controls.

56/134 © EPODOC / EPO

PN - [CN104720662](#) A 20150624

PR - CN201510156866 20150403

AP - CN201510156866 20150403

DT - I

CT - || STSE (A)
[JP2000060763](#) A 00000000 [A]
 [A] 1-4
 * 全文 *;
[KR20090053003](#) A 00000000 [A]
 [A] 1-4
 * 全文 *;
[CN201418701Y](#) Y 00000000 [X]
 [X] 1-4
 * 说明书第2页第8-23行, 图1 *

PA - ZOU SIJIA
 TI - Spraying hand washing sterilizer
 AB - The invention discloses a spraying hand washing sterilizer. The spraying hand washing sterilizer is composed of an **ultraviolet** light induction air outlet, a spraying port, a plug line, a hand **sanitizer** containing box and wall hanging holes. The spraying hand washing sterilizer is characterized in that when the spraying hand washing sterilizer is in use, the two hands are placed in the induction area, and mist with hand **sanitizer** begins to be sprayed out after the two hands are inducted.

57/134 © EPODOC / EPO

PN - [CN204351736U](#) U 20150527
 PR - CN201420814151U 20141219
 AP - CN201420814151U 20141219
 DT - I
 PA - SUZHOU SONGSHUN HARDWARE CO LTD
 TI - Integrated rolled tissue box
 AB - The utility model relates to an integrated rolled tissue box. The integrated rolled tissue box comprises a box body. A toilet soap groove and a hand **sanitizer** groove are formed in the upper surface of the box body. A flow guiding groove is formed in the toilet soap groove. A water accumulating box is arranged on the wall at one side end of the toilet soap groove. Installation rods are arranged on the two side walls of the box body. Clamping plates are arranged at the two ends of the installation rods. One side of the upper portion of the box body is provided with a connecting plate, and an installation hole is formed in the connecting plate. A heating tube and an **ultraviolet** lamp tube are arranged at the bottom of the box body, and the **ultraviolet** lamp tube is arranged in the middle of the heating tube. According to the scheme, due to the fact that the toilet soap groove and the hand **sanitizer** groove are formed in the upper surface of the box body, toilet soap and a hand **sanitizer** are arranged in a concentrated mode, and space is saved; the installation rods are arranged on the two side walls of the box body and are fixed through the clamping plates, when rolled tissue is replaced, the clamping plates are unscrewed, the installation rods are taken off, rolled tissue is arranged in a sleeving mode, and the clamping plates are screwed on; the heating pipe and the **ultraviolet** lamp tube are arranged at the bottom of the box body, and the drying and disinfecting functions can be achieved. By means of the design, multiple objects can be placed in a concentrated mode, space can be saved, and a toilet can be attractive.

58/134 © EPODOC / EPO

PN - [MX2014014519](#) A 20150224
 PR - US201261689167P 20120530; WO2013US43485 20130530
 AP - MX20140014519 20130530
 DT - I
 CCI - [C02F1/325](#) ; [C02F1/78](#)
 CCA - [C02F2201/3221](#) ; [C02F2201/3227](#) ; [C02F2201/3228](#) ; [C02F2201/784](#)
 CI - C02F1/325 (EP, US)
 - C02F1/78 (EP, US)
 CA - C02F2201/3221 (EP, US)
 - C02F2201/3227 (EP, US)
 - C02F2201/3228 (EP)
 - C02F2201/784 (EP, US)
 - C02F2303/04 (US)

PA - BARNES RONALD L [US]
 TI - **SANITIZERSYSTEM.**
 AB - An enclosure 12) supports a water carrying tube (16) through which a flow of water to be sanitized passes. Water carrying tube (16) may be supported at each end by Venturis (24, 26) mounted in ends of a housing (12). One or more **ultraviolet** lamps (14) extend along tube (16). Air tubes (62a, 62b, 72) are connected to Venturi suction ports (30) or an external use (Fig. 7) and have openings (64) therealong are oriented very close to the **ultraviolet** lamps (14), with openings (64) facing the **ultraviolet** tubes (14) in order to draw ozonated air directly from near the surface of the **ultraviolet** lamps (14). **Ultraviolet** lamps (14) may be pulsed with high power pulses of a frequency and duration determined by an air flow rate through the air tubes (62a, 62b, 72) in order to maximize ozone production. An external Venturi suction port may also be provided.

59/134 © EPODOC / EPO

PN - [US2015136671](#) A1 20150521
 PR - US201314403655 20130530; US201261689167P 20120530; WO2013US43485 20130530
 AP - US201314403655 20130530
 DT - **
 CT - || R141 (A1)
[US5266215](#) A 19931130 [] (ENGELHARD ROLF [US]);
[US2002023866](#) A1 20020228 [] (BARNES RONALD L [US]);
[US2006144691](#) A1 20060706 [] (BARNES STEVEN R [US], et al);
[US6083387](#) A 20000704 [] (LEBLANC EDWARD L [US], et al);
[US6332981](#) B1 20011225 [] (LOYD WALTER THOMAS [US]);
[US5343629](#) A 19940906 [] (RAE MALCOLM C [GB]);
[US6951633](#) B1 20051004 [] (BARNES RONALD L [US]);
[US2001042708](#) A1 20011122 [] (BARNES RONALD L [US]);
[US5536400](#) A 19960716 [] (SCHULTZ JEFFREY L [US]);
[US7186334](#) B1 20070306 [] (BARNES RONALD L [US]);
[US2004140269](#) A1 20040722 [] (CHANG STEVEN SHIH-YI [TW]);
[US4273660](#) A 19810616 [] (BEITZEL STUART W);
[US4323810](#) A 19820406 [] (HORSTMANN GEORG);
[US2008008632](#) A1 20080110 [] (ENGELHARD ROLF [US]);
[US4274970](#) A 19810623 [] (BEITZEL STUART W);
[US2002170816](#) A1 20021121 [] (LEFFLER CHARLES E [US], et al);
[US2004232358](#) A1 20041125 [] (MORUZZI JAMES LODOVICO [GB]);
[US5106589](#) A 19920421 [] (CONRAD RICHARD H [US])
 CCI - [C02F1/325](#) ; [C02F1/78](#)
 CCA - [C02F2201/3221](#) ; [C02F2201/3227](#) ; [C02F2201/3228](#) ; [C02F2201/784](#)
 CI - C02F1/325 (EP, US)
 - C02F1/78 (EP, US)
 CA - C02F2201/3221 (EP, US)
 - C02F2201/3227 (EP, US)
 - C02F2201/3228 (EP)
 - C02F2201/784 (EP, US)
 - C02F2303/04 (US)
 PA - BARNES RONALD L [US]
 TI - **SANITIZERSYSTEM**
 AB - An enclosure 12) supports a water carrying tube (16) through which a flow of water to be sanitized passes. Water carrying tube (16) may be supported at each end by Venturis

(24, 26) mounted in ends of a housing (12). One or more **ultraviolet** lamps (14) extend along tube (16). Air tubes (62a, 62b, 72) are connected to Venturi suction ports (30) or an external use (FIG. 7) and have openings (64) therealong are oriented very close to the **ultraviolet** lamps (14), with openings (64) facing the **ultraviolet** tubes (14) in order to draw ozonated air directly from near the surface of the **ultraviolet** lamps (14). **Ultraviolet** lamps (14) may be pulsed with high power pulses of a frequency and duration determined by an air flow rate through the air tubes (62a, 62b, 72) in order to maximize ozone production. An external Venturi suction port may also be provided.

60/134 © EPODOC / EPO

PN - [CN104606077](#) A 20150513

PR - CN20151053523 20150202

AP - CN20151053523 20150202

DT - I

CT - || STSE (A)
[CN101402844](#) A 00000000 [A]

[A] 1-5

* 全文. *;

[CN101711726](#) A 00000000 [Y]

[Y] 1-5

* 说明书第6-16段. *;

[CN102078273](#) A 00000000 [A]

[A] 1-5

* 全文. *;

[CN103893019](#) A 00000000 [Y]

[Y] 1-5

* 说明书第6-9段. *;

[CN104027293](#) A 00000000 [A]

[A] 1-5

* 全文. *

PA - UNIV TONGJI

TI - Nanometer **ultraviolet**-resistant ginseng whitening hand **sanitizer** and preparation method thereof

AB - The invention relates to a nanometer **ultraviolet**-resistant ginseng whitening hand **sanitizer** and a preparation method thereof. The hand **sanitizer** is prepared from the following components in parts by mass: 1-20 parts of aqueous solution of sodium dodecyl benzene sulfonate, 0.1-5 parts of glycerin, 0.1-5 parts of 2-methyl-4-isothiazolin-3-one, 1-40 parts of aqueous solution of cocamidopropyl betaine, 0.1-20 parts of panaxoside, 0.5-2 parts of nanometer titania, 0.1-5 parts of spices, 0.1-5 parts of pigments, 0.01-2 parts of citric acid, 0.1-5 parts of sodium chloride and the balance of distilled water. Compared with the prior art, the hand **sanitizer** prepared by the invention can achieve the bacteria resisting and inhibiting effects, and the effects of whitening, moistening skin and preventing **ultraviolet** radiation can be achieved.

[SS 36] 35 and /IC (A47K)

Results in EPODOC 12

[SS 37] ..li



1/12 © EPODOC / EPO

PN - [AU2020101428](#) A4 20200827

PR - AU20200101428 20200720

AP - AU20200101428 20200720

DT - I

PA - V MOHANAVEL; U ARUNACHALAM; R JANARTHANAN; M RAVICHANDRAN; J VAIRAMUTHU; KUMAR ATUL; DHAYAL SARDUL SINGH

TI - A SMART AND EFFICIENT **SANITIZER** DISPENSER ALONG WITH ALARM AND **UV** SANITIZATION MECHANISM

AB - A smart and efficient **sanitizer** dispenser along with alarm and **UV** sanitization mechanism is the need of an hour invention since the people around the globe are concentrating on sanitizing their hands regularly to avoid the spread of the corona virus disease. The smart **sanitizer** is a rechargeable automatic **sanitizer** dispenser stand that sanitizes the person and the things they carry with a dual mode sanitization process. The **sanitizer** is also embedded with a time sensor (101) which will alert the respective person that it's time for him/her to sanitize his/her things and himself/herself again. The **ultra violet** rays are used to sanitize the things such as cell phones and wallets. The **sanitizer** also includes alerts regarding the refilling of **sanitizer** tanks when the **sanitizer** fluids in the storage tank is about to get empty. SWITCH 105 106 1 TIME ALERT RECHARGEABLE SENSOR MESSAGE BATTERY SANMDZER RAY SANITIZATION DISPENSER 102 HUMAN HANDS & THINGS FIG1: SCHEMATICVIEW

2/12 © EPODOC / EPO

PN - [CN206285021U](#) U 20170630

PR - CN20162114971U 20160831

AP - CN20162114971U 20160831

DT - I

PA - ZHOU CAIXIANG

TI - Sanitary washing unit of **ultraviolet** sterilization

AB - The utility model belongs to the technical field of the sanitary bath equipment, a sanitary washing unit of **ultraviolet** sterilization is provided, including wash the body and with the water control valve that washes this body coupling, wash the body include the water inlet segment, with the water outlet pipe section of water inlet segment intercommunication and with the **ultraviolet** sterilization pipeline section of water outlet pipe section intercommunication, the **UV** of **ultraviolet** sterilization pipeline section in the body and arranging in of disinfecting disinfects the body C **ultraviolet** fluorescent tube. The utility model discloses a control water control valve, under water control valve's effect, from the washing water that the water inlet segment got into, the water outlet pipe section that flows through, then through the **ultraviolet** sterilization pipeline section, when wasing water and wash human body region, the **UV** that sends in the **ultraviolet** sterilization pipeline section the C **ultraviolet** ray is disinfected simultaneously and is disinfected, and is consequently clean more thorough, and can reach bactericidal effect under the circumstances of not using the **sanitizer**.

3/12 © EPODOC / EPO

PN - [US2015184368](#) A1 20150702

PNFP - US9689156 B2 20170627

PR - US201514656317 20150312; US20090619997 20091117

AP - US201514656317 20150312

DT - **

CT - || R141 (A1)
[US4204285](#) A 00000000 [];
[US4558473](#) A 00000000 []

- || STSE (B2)
[US4204285](#) A 00000000 [];
[US4558473](#) A 00000000 []

CCI - [A47K13/10](#) ; [E03D1/01](#) ; [E03D9/08](#)

CCA - [Y10T29/49002](#)

CI - A47K13/10 (EP, US)
E03D1/01 (EP, US)
E03D9/005 (US)
E03D9/08 (EP, US)
E03D11/13 (US)

CA - Y10T29/49002 (EP, US)

PA - (A1 B2)
KOHLER CO [US]

TI - (A1)
PLUMBING FIXTURE HAVING MODULAR CONTROL HOUSING

- (B2)
Plumbing fixture having modular control housing

AB - (A1 B2)
Disclosed is a plumbing fixture (e.g. a bidet or toilet) of the type having a frontal basin and means for directing a supply of water to the basin for cleaning the basin. The plumbing fixture includes a modular housing mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be selected from the group Consisting of light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls, deodorizer controls, audio device controls and **ultra violet sanitizer** controls.

4/12 © EPODOC / EPO

PN - [CN104720662](#) A 20150624

PR - CN201510156866 20150403

AP - CN201510156866 20150403

DT - I

CT - || STSE (A)
[JP2000060763](#) A 00000000 [A]
[A] 1-4
* 全文 *;
[KR20090053003](#) A 00000000 [A]
[A] 1-4
* 全文 *;
[CN201418701Y](#) Y 00000000 [X]
[X] 1-4
* 说明书第2页第8-23行, 图1 *

PA - ZOU SIJIA

TI - Spraying hand washing sterilizer

AB - The invention discloses a spraying hand washing sterilizer. The spraying hand washing sterilizer is composed of an **ultraviolet** light induction air outlet, a spraying

port, a plug line, a hand **sanitizer** containing box and wall hanging holes. The spraying hand washing sterilizer is characterized in that when the spraying hand washing sterilizer is in use, the two hands are placed in the induction area, and mist with hand **sanitizer** begins to be sprayed out after the two hands are inducted.

5/12 © EPODOC / EPO

- PN - [CN204351736U](#) U 20150527
- PR - CN201420814151U 20141219
- AP - CN201420814151U 20141219
- DT - I
- PA - SUZHOU SONGSHUN HARDWARE CO LTD
- TI - Integrated rolled tissue box
- AB - The utility model relates to an integrated rolled tissue box. The integrated rolled tissue box comprises a box body. A toilet soap groove and a hand **sanitizer** groove are formed in the upper surface of the box body. A flow guiding groove is formed in the toilet soap groove. A water accumulating box is arranged on the wall at one side end of the toilet soap groove. Installation rods are arranged on the two side walls of the box body. Clamping plates are arranged at the two ends of the installation rods. One side of the upper portion of the box body is provided with a connecting plate, and an installation hole is formed in the connecting plate. A heating tube and an **ultraviolet** lamp tube are arranged at the bottom of the box body, and the **ultraviolet** lamp tube is arranged in the middle of the heating tube. According to the scheme, due to the fact that the toilet soap groove and the hand **sanitizer** groove are formed in the upper surface of the box body, toilet soap and a hand **sanitizer** are arranged in a concentrated mode, and space is saved; the installation rods are arranged on the two side walls of the box body and are fixed through the clamping plates, when rolled tissue is replaced, the clamping plates are unscrewed, the installation rods are taken off, rolled tissue is arranged in a sleeving mode, and the clamping plates are screwed on; the heating pipe and the **ultraviolet** lamp tube are arranged at the bottom of the box body, and the drying and disinfecting functions can be achieved. By means of the design, multiple objects can be placed in a concentrated mode, space can be saved, and a toilet can be attractive.

6/12 © EPODOC / EPO

- PN - [CN104490338](#) A 20150408
- PR - CN201410798664 20141219
- AP - CN201410798664 20141219
- DT - I
- CT - || STSE (A)
[JP2006075567](#) A 00000000 [A]
 [A] 1-2
 * 全文 *;
[CN2768637Y](#) Y 00000000 [Y]
 [Y] 1-2
 * 说明书第4页第3行到第5页第19行, 图1-17 *;
[CN2840904Y](#) Y 00000000 [Y]
 [Y] 1-2
 * 说明书第2页倒数第3行到第3页第24行, 图1-7 *;
[CN203153606U](#) U 00000000 [Y]
 [Y] 1-2
 * 说明书第0017-0023段, 图1-2 *;
[CN103330525](#) A 00000000 [Y]

[Y] 1-2

* 说明书第0010-0012段, 图1 *;

[CN204351735U](#) U 00000000 [R]

[R] 1-2

* 权利要求1-2 *

PA - SUZHOU SONGSHUN HARDWARE CO LTD

TI - Multifunctional roll paper box

AB - The invention discloses a multifunctional roll paper box which comprises a box body. A soap groove and a hand **sanitizer** groove are formed in the upper surface of the box body, a diversion groove is formed in the soap groove, a water accumulating box is mounted on the box wall at one side end of the soap groove, L-shaped grooves are formed in two side walls of the box body, a movable mounting rod is arranged in the L-shaped grooves, chucks are arranged at two ends of the mounting rod, retaining plates are arranged at inlet ends of the L-shaped grooves, moving and fixing of the retaining plates are controlled through locking bolts, a connecting plate is arranged on one side of the upper portion of the box body, mounting holes are formed in the connecting plate, a heating tube and an **ultraviolet** lamp tube are arranged at the bottom of the box body, and the **ultraviolet** lamp tube is arranged in the middle of the heating tube. Through the above design, various articles are placed in a centralized manner, so that space can be saved while attractiveness of a bathroom is realized.

7/12 © EPODOC / EPO

PN - [CN104398198](#) A 20150311

PR - CN201410796367 20141219

AP - CN201410796367 20141219

DT - I

CT - || STSE (A)
[JP2006075567](#) A 00000000 [A]

[A] 1-2

* 全文 *;

[CN2840904Y](#) Y 00000000 [Y]

[Y] 1-2

* 说明书第2页倒数第3行到第3页第24行, 图1-7 *;

[CN103330525](#) A 00000000 [Y]

[Y] 1-2

* 说明书第0010-0012段, 图1 *;

[CN103536240](#) A 00000000 [Y]

[Y] 1-2

* 说明书第0011-0013段, 图1-2 *;

[CN204351737U](#) U 00000000 [R]

[R] 1-2

* 权利要求1-2 *

PA - SUZHOU SONGSHUN HARDWARE CO LTD

TI - Double-drum roll paper box

AB - The invention discloses a double-drum roll paper box. The box comprises a box body, wherein a toilet soap groove and a hand **sanitizer** groove are formed in the upper surface of the box body, guide grooves are formed in the toilet soap groove, an accumulated water box is mounted on the box wall at one side end of the toilet soap groove and detachably mounted on one side wall of the box body, a mounting rod is arranged between two side walls of the box body and is a double-drum rod mounted on a connecting piece, the connecting piece is mounted on one side wall of the box body through a fixing bolt, a connecting plate is arranged on one side of the upper

part of the box body, mounting holes are formed in the connecting plate, heating tubes and an **ultraviolet** lamp tube are arranged at the bottom of the box body, and the **ultraviolet** lamp tube is arranged between the heating tubes. According to the design, multiple articles are placed in a centralized manner, the space can be saved, the roll paper replacing frequency can be reduced, and a bathroom can be attractive in appearance.

8/12 © EPODOC / EPO

PN - [CN102713093](#) A 20121003

PNFP - CN102713093B B 20150729

PR - US20090619997 20091117; WO2010US56472 20101112

AP - CN20108060020 20101112

DT - I

CT - || STSE (A)
[US7380292](#) B1 00000000 [YX]
[Y] 2、7、10、11
* 说明书第8栏第38-67行、第9栏第1-3行、第17栏4-30行, 第21栏第1-28行, 45-63行及附图1、6 *
[X] 1、3、4-6、8-9;
[CN1095784](#) A 00000000 [A]
[A] 1-11
* 全文 *;
[US2008040845](#) A1 00000000 [A]
[A] 1-11
* 全文 *;
[CN101082230](#) A 00000000 [A]
[A] 1-11
* 全文 *;
[CN201187084Y](#) Y 00000000 [A]
[A] 1-11
* 全文 *;
[JPS6098026](#) A 00000000 [Y]
[Y] 2、7、10、11
* 说明书第121页第一栏10-11行及参见附图2 *;
[CN2585618Y](#) Y 00000000 [Y]
[Y] 1-11
* 参见第3页倒数第2段及附图1 *;
[CN201116379Y](#) Y 00000000 [Y]
[Y] 1-11
* 参见说明书具体实施方式第2段及第11页第3段及附图1、7、13-14 *

CCI - [A47K13/10](#) ; [E03D1/01](#) ; [E03D9/08](#)

CCA - [Y10T29/49002](#)

CI - A47K13/10 (EP, US)
- E03D1/01 (EP, US)
- E03D9/005 (US)
- E03D9/08 (EP, US)
- E03D11/13 (US)

CA - Y10T29/49002 (EP, US)

PA - (A)
KOHLER CO

TI - (A)

Plumbing fixture having modular control housing

AB

- (A)
Disclosed is a plumbing fixture (e.g. a bidet (10) or toilet) of the type having a frontal basin (12) and means for directing a supply of water to the basin for cleaning the basin. The plumbing fixture includes a modular housing (14) mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be selected from the group consisting of light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls, deodorizer controls, audio device controls and **ultra violet sanitizer** controls.

9/12 © EPODOC / EPO

PN - [US2011113540](#) A1 20110519

PNFP - US8978172 B2 20150317

PR - US20090619997 20091117

AP - US20090619997 20091117

DT - *, Rep

CT - || R141 (A1)

[US2006070364](#) A1 20060406 [
] (REAMSNYDER CHRISTOPHER
R [US], et al);

[US7380292](#) B1 20080603 [
] (HARRIS ROBERT MARION
[US]);

[US2006143814](#) A1 20060706 [
] (WANG CHU [TW]);

[US2005246828](#) A1 20051110 [
] (SHIRAI SHIGERU [JP], et al);

[JPS6098026](#) A 19850601 [
] (MIZUTANI TOSHIO);

[US2012174309](#) A1 20120712 [
] (KUANG QIFENG [CN]);

[US2006064810](#) A1 20060330 [
] (TERANISHI SHUNICHI [JP], et
al);

[US2012284912](#) A1 20121115 [
] (KUANG QIFENG [CN]);

[JPH02274930](#) A 19901109 [
] (MATSUSHITA ELECTRIC IND
CO LTD);

[US3932901](#) A 19760120 [
] (INUI KANJI, et al);

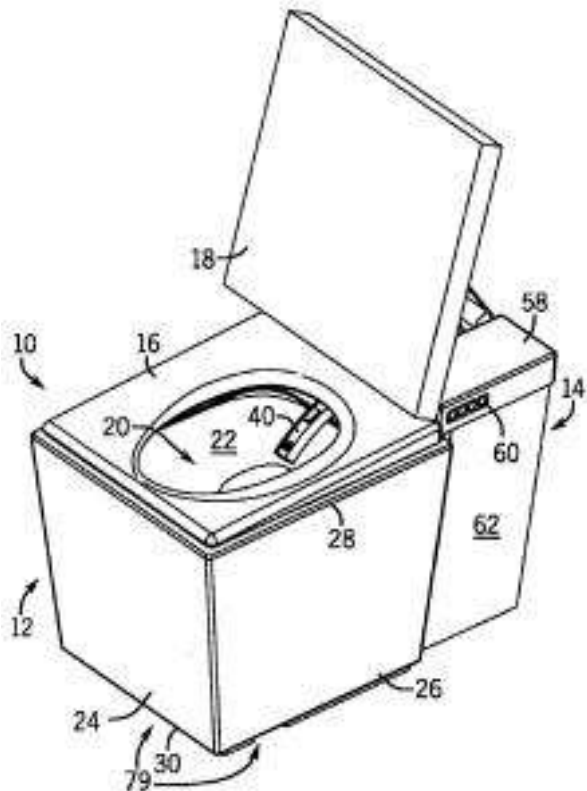
[US2007000039](#) A1 20070104 [
] (HUEI OUYANG [TW]);

[US3715549](#) A 19730206 [
] (KRAFF L);

[US5499008](#) A 19960312 [
] (ROSENKRANTZ EVELYN [US],
et al);

[US1625950](#) A 19270426 [
] (LEE ULYSSES G);

[US4439874](#) A 19840403 [
]



] (SCHROCK DONALD C [US]);
[US5305475](#) A 19940426 [
] (JAECKELS NORMAN J [US], et
 al);
[US1957831](#) A 19340508 [
] (HARRY HAGUE, et al);
[USD594945S](#) S 20090623 [
] (NAKASAKI NAMI [JP], et al);
[US5036443](#) A 19910730 [
] (HUMBLE WAYNE [US], et al);
[US6782561](#) B2 20040831 [
] (SIGLER JAMES A [US], et al);
[US2658203](#) A 19531110 [
] (JOHANN AUE);
[US5259073](#) A 19931109 [
] (TSUTSUI OSAMU [JP], et al);
[US3995327](#) A 19761207 [
] (HENDRICK JOHN RICHARD);
[US6158061](#) A 20001212 [
] (CAMERON DAVID B [US], et
 al)
 - || STSE (B2)
[US7380292](#) B1 20080603 [
] (HARRIS ROBERT MARION
 [US]);
[US2005246828](#) A1 20051110 [
] (SHIRAI SHIGERU [JP], et al);
[US2006064810](#) A1 20060330 [
] (TERANISHI SHUNICHI [JP], et
 al);
[US2006070364](#) A1 20060406 [
] (REAMSNYDER CHRISTOPHER
 R [US], et al);
[US2006143814](#) A1 20060706 [
] (WANG CHU [TW]);
[US2012174309](#) A1 20120712 [
] (KUANG QIFENG [CN]);
[US2012284912](#) A1 20121115 [
] (KUANG QIFENG [CN]);
[JPS6098026](#) A 19850601 [
] (MIZUTANI TOSHIO);
[JPH02274930](#) A 19901109 [
] (MATSUSHITA ELECTRIC IND
 CO LTD)
 CCI - [A47K13/10](#) ; [E03D1/01](#) ;
[E03D9/08](#)
 CCA - [Y10T29/49002](#)
 CI - A47K13/10 (EP, US)
 - E03D1/01 (EP, US)
 - E03D9/005 (US)
 - E03D9/08 (EP, US)
 - E03D11/13 (US)
 CA - Y10T29/49002 (EP, US)

PA	- (B2) PLATE ERIC M [US]; DENZIN PETER W [US]; STAUBER JOSEPH L [US]; KOHLER CO [US]
TI	- (A1) Plumbing Fixture Having Modular Control Housing - (B2) Plumbing fixture having modular control housing
AB	- (A1) Disclosed is a plumbing fixture (e.g. a bidet or toilet) of the type having a frontal basin and means for directing a supply of water to the basin for cleaning the basin. The plumbing fixture includes a modular housing mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be selected from the group consisting of light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls, deodorizer controls, audio device controls and ultra violet sanitizer controls. - (B2) A plumbing fixture, such as a bidet or toilet, includes a frontal basin and a supply of water for cleaning the basin. The plumbing fixture includes a modular housing mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls,

deodorizer controls, audio
device controls and **ultra
violet sanitizer** controls.

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- PN - [WO2011062840](#) A1 20110526
- PR - US20090619997 20091117
- AP - WO2010US56472 20101112
- DT - **
- CT - |EP| ISR (A1)
[WO2006070364](#) A2 20060706 [X] (03 MAGMA 03 2004 LTD [IL], et al)
[X] 1,6-8,10,11
* page 5, line 3 - line 11; figure 2; claim - *;
[JPS6098026](#) A 19850601 [X] (MIZUTANI TOSHIO)
[X] 1,2,7,10,11
* figure - *;
[US7380292](#) B1 20080603 [X] (HARRIS ROBERT MARION [US])
[X] 1,3,6,8
* column 8, lines 40, 64 - column 9, line 32; figure - *;
[DE2547496](#) A1 19770428 [A] (MFB NEUWERK MECH FENSTER)
[A] 1
* abstract *
- CCI - [A47K13/10](#) ; [E03D1/01](#) ; [E03D9/08](#)
- CCA - [Y10T29/49002](#)
- CI - A47K13/10 (EP, US)
- E03D1/01 (EP, US)
- E03D9/005 (US)
- E03D9/08 (EP, US)
- E03D11/13 (US)
- CA - Y10T29/49002 (EP, US)
- PA - KOHLER CO [US]; PLATE ERIC M [US]; DENZIN PETER W [US]; STAUBER JOSEPH L [US]
- TI - PLUMBING FIXTURE HAVING MODULAR CONTROL HOUSING
- AB - Disclosed is a plumbing fixture (e.g. a bidet (10) or toilet) of the type having a frontal basin (12) and means for directing a supply of water to the basin for cleaning the basin. The plumbing fixture includes a modular housing (14) mountable behind the basin and at least one control positioned in the modular housing to control operation of the plumbing fixture. The control may be selected from the group consisting of light controls, bidet wand position controls, bidet wand heated air supply controls, bidet wand water supply controls, lid position movement controls, seat position movement controls, deodorizer controls, audio device controls and **ultra violet sanitizer** controls.

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- PNFP - WO2010033791 A3 20100520
- PR - US20080098468P 20080919; US20090560484 20090916; US20080098116P 20080918
- AP - WO2009US57462 20090918
- DT - **
- CT - |KR| ISR (A3)

[US2002006275](#) A1 00000000 [Y] (SHIRLEY POLLACK);
[KR200436529Y](#) Y1 00000000 [Y] (UNIX ELECTRONICS CO., LTD.);
[KR200420456Y](#) Y1 00000000 [A] (BAK, YUN HAK);
[JP2006204321](#) A 00000000 [A] (KYUSHU HITACHI MAXELL LTD.);
[KR970048832U](#) U 00000000 [A] (IM, SUNG MIN)

CCI - [A47K10/48](#)
CI - A47K10/48 (EP)
PA - (A2 A3)
POLLACK SHIRLEY [US]; HARRIS BRUCE [US]; SALIGA THOMAS [US]
TI - (A2 A3)
AIR DRYER AND **SANITIZER**
AB - (A2 A3)
A method of treating an infant's bottom while changing diapers and a method employing such device involves a handheld blower and bactericide generator. The blower forces warmed air against the infant's bottom and **ultraviolet** lights supported in the blower irradiate the infant's body and the heated air to reduce bacteria. The **ultraviolet** lights are pulsed to enhance the antibacterial action.

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PNFP - CN101524550B B 20130925
PR - US20080044006 20080307
AP - CN200910126076 20090309
DT - I
CT - || STSE (A)
[US4906851](#) A 00000000 [A]
[A] 1-20
* 全文 *;
[US5023460](#) A 00000000 [A]
[A] 1-20
* 全文 *;
[CN2548452Y](#) Y 00000000 [A]
[A] 1-20
* 全文 *;
[US2004089815](#) A1 00000000 [A]
[A] 1-20
* 全文 *;
[US2007109797](#) A1 20070517 [A] (REDA RONALD F JR [US])
[A] 1-20
* 全文 *
PA - (A B)
ULTRA VIOLET INC
TI - (A B)
Rocking toothbrush **sanitizer**
AB - (A)
A toothbrush or the like may be inserted, bristles downward, into an aperture in a cap removably attached to a body of the apparatus. A peg may be inserted into any one of the apertures in order to allow an electric toothbrush head or other non-standard type of toothbrush to be used. An internal **ultraviolet (UV)** bulb is located in the apparatus to sanitize the toothbrushes. A timer/control circuit may activate the **UV** bulb for three minutes and then shut off. To prevent the recurrence of

bacterial growth over time, the **UV** bulb may be automatically reactivated by the timer/control circuit after six hours and activated for another 3 minutes or another amount of time, as programmed. A safety mechanism may interact with a spring-loaded microswitch coupled to the timer/control circuit to disable the unit if the cap is removed. The body has a rounded bottom and is weighted such that the sanitizing apparatus sits upright on a flat surface and returns to an upright position if tipped.

[SS 37]