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(54) **SUNSCREEN APPLICATION DEVICE**

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(57)

**ABSTRACT**

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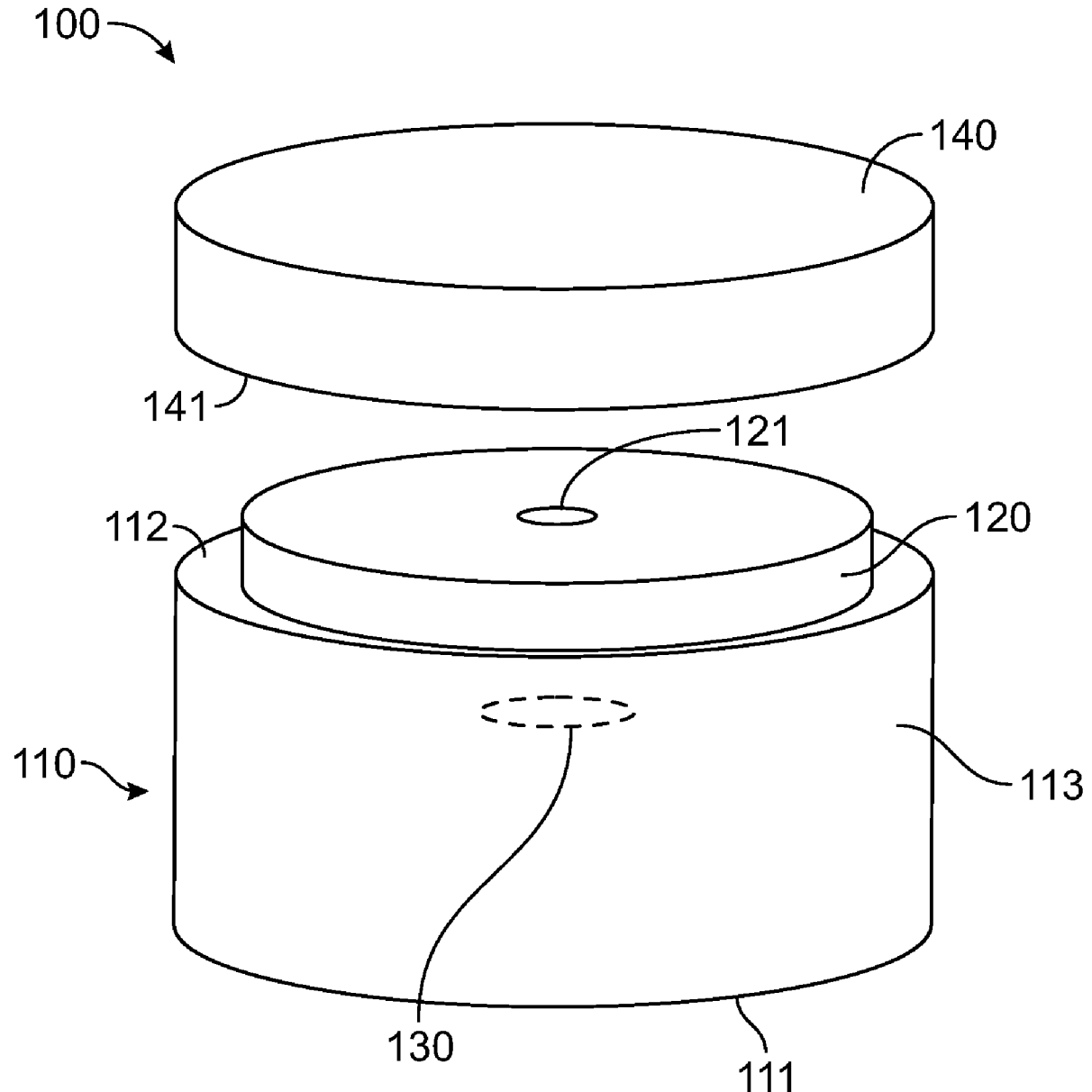
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A sunscreen application device, including a main body to store at least one liquid therein, and an applicator movably disposed on and within at least a portion of the main body to dispense the at least one liquid from the main body in response to depressing the applicator.

**Publication Classification**

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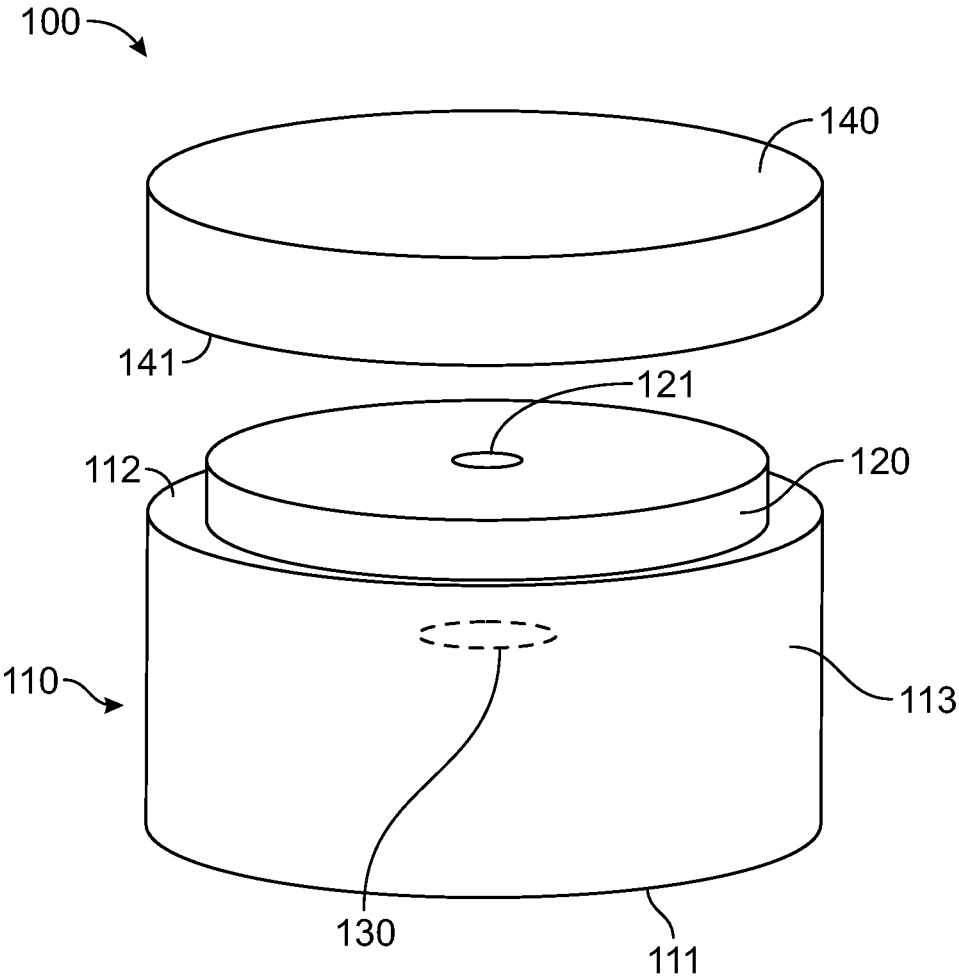


FIG. 1

## SUNSCREEN APPLICATION DEVICE

### BACKGROUND

#### 1. Field

**[0001]** The present general inventive concept relates generally to topical treatment, and particularly, to a sunscreen application device.

#### 2. Description of the Related Art

**[0002]** Sunscreen is an important and often necessary topical product for people experiencing prolonged exposure to the Sun. It is well known that the Sun emits ultraviolet (UV) light that damages skin and can cause the skin to tan. However, applying sunscreen is inconvenient. Typically, the sunscreen leaves a greasy mess on hands of a person and may be painful if the sunscreen enters eyes of the person. The sunscreen will leave a residue on the hands that not only makes it incredibly difficult to have a solid grip on items, post application, but can also stain clothing and other fabrics when not properly washed off.

**[0003]** Unfortunately, the conventional sunscreen comes in a spray bottle and/or a container with a sunscreen lotion that has to be applied with the hands. In either case, the person is forced to use the hands to ensure effective application of the sunscreen.

**[0004]** Therefore, there is a need for a sunscreen application device that applies sunscreen to a body of the person without using the hands.

### SUMMARY

**[0005]** The present general inventive concept provides a sunscreen application device.

**[0006]** Additional features and utilities of the present general inventive concept will be set forth in part in the description which follows and, in part, will be obvious from the description, or may be learned by practice of the general inventive concept.

**[0007]** The foregoing and/or other features and utilities of the present general inventive concept may be achieved by providing a sunscreen application device, including a main body to store at least one liquid therein, and an applicator movably disposed on and within at least a portion of the main body to dispense the at least one liquid from the main body in response to depressing the applicator.

**[0008]** The main body may include a base, a top surface having a size equivalent to a size of the base, and a cylindrical surface perpendicularly disposed away from the base toward the top surface to connect the base to the top surface.

**[0009]** The applicator may be disposed on and within at least a portion of a center of the top surface and protrudes away from the top surface.

**[0010]** The applicator may at least partially deform in response to an application of force thereto.

**[0011]** The applicator may include a dispensing aperture disposed on at least a portion of a center of the applicator to dispense the at least one liquid from the main body in response to depressing the applicator.

**[0012]** The sunscreen application device may further include a valve disposed within at least a portion of the main

body and connected to the applicator to release the at least one liquid from the main body to the applicator in response to depressing the applicator.

**[0013]** The sunscreen application device may further include a lid removably connected to at least a portion of the main body to cover the applicator.

**[0014]** The lid may include a recessed surface disposed on at least a portion of a center of the lid to receive the applicator therein and prevent evaporation of the at least one liquid from the applicator while the lid remains connected to the main body.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0015]** These and/or other features and utilities of the present generally inventive concept will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings of which:

**[0016]** FIG. 1 illustrates a side perspective view of a sunscreen application device, according to an exemplary embodiment of the present general inventive concept.

### DETAILED DESCRIPTION

**[0017]** Various example embodiments (a.k.a., exemplary embodiments) will now be described more fully with reference to the accompanying drawings in which some example embodiments are illustrated. In the figures, the thicknesses of lines, layers and/or regions may be exaggerated for clarity.

**[0018]** Accordingly, while example embodiments are capable of various modifications and alternative forms, embodiments thereof are shown by way of example in the figures and will herein be described in detail. It should be understood, however, that there is no intent to limit example embodiments to the particular forms disclosed, but on the contrary, example embodiments are to cover all modifications, equivalents, and alternatives falling within the scope of the disclosure. Like numbers refer to like/similar elements throughout the detailed description.

**[0019]** It is understood that when an element is referred to as being “connected” or “coupled” to another element, it can be directly connected or coupled to the other element or intervening elements may be present. In contrast, when an element is referred to as being “directly connected” or “directly coupled” to another element, there are no intervening elements present. Other words used to describe the relationship between elements should be interpreted in a like fashion (e.g., “between” versus “directly between,” “adjacent” versus “directly adjacent,” etc.).

**[0020]** The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of example embodiments. As used herein, the singular forms “a,” “an” and “the” are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms “comprises,” “comprising,” “includes” and/or “including,” when used herein, specify the presence of stated features, integers, steps, operations, elements and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components and/or groups thereof.

**[0021]** Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same mean-

ing as commonly understood by one of ordinary skill in the art to which example embodiments belong. It will be further understood that terms, e.g., those defined in commonly used dictionaries, should be interpreted as having a meaning that is consistent with their meaning in the context of the relevant art. However, should the present disclosure give a specific meaning to a term deviating from a meaning commonly understood by one of ordinary skill, this meaning is to be taken into account in the specific context this definition is given herein.

#### LIST OF COMPONENTS

[0022] Sunscreen Application Device **100**  
 [0023] Main Body **110**  
 [0024] Base **111**  
 [0025] Top Surface **112**  
 [0026] Cylindrical Surface **113**  
 [0027] Applicator **120**  
 [0028] Dispensing Aperture **121**  
 [0029] Valve **130**  
 [0030] Lid **140**  
 [0031] Recessed Surface **141**  
 [0032] FIG. 1 illustrates a side perspective view of a sunscreen application device **100**, according to an exemplary embodiment of the present general inventive concept.  
 [0033] The sunscreen application device **100** may be constructed from at least one of metal, plastic, wood, and rubber, etc., but is not limited thereto.  
 [0034] The sunscreen application device **100** may include a main body **110**, an applicator **120**, a valve **130**, and a lid **140**, but is not limited thereto.  
 [0035] Referring to FIG. 1, the main body **110** is illustrated to have a cylindrical shape. However, the main body **110** may be rectangular, circular, conical, triangular, pentagonal, hexagonal, heptagonal, octagonal, or any other shape known to one of ordinary skill in the art, but is not limited thereto.  
 [0036] The main body **110** may store at least one liquid therein, such as a sunscreen lotion and/or a sunscreen liquid with a propellant to convert the sunscreen into an aerosol in response to being dispensed.  
 [0037] The main body **110** may include a base **111**, a top surface **112**, and a cylindrical surface **113**, but is not limited thereto.  
 [0038] The base **111** may be planar and be disposed on a first end of the main body **110**. Moreover, the base **111** may be removably disposed on any surface, such as a ground surface, a table, a countertop, etc.  
 [0039] The top surface **112** may be disposed on a second end of the main body **110** opposite with respect to the base **111**. The top surface **112** may have a size (e.g., a diameter and/or a circumference) equivalent to a size (e.g., a diameter and/or a circumference) of the base **111**.  
 [0040] The cylindrical surface **113** may be circumferentially disposed in a circle around a perimeter of the base **111** and/or the top surface **112**. Additionally, the cylindrical surface **113** may be disposed between the base **111** and/or the top surface **112**. As such, the cylindrical surface **113** may connect the base **110** the top surface **112**. Moreover, the cylindrical surface **113** may be perpendicularly disposed away from the base **111** toward the top surface **112** to connect the base **111** to the top surface **112**, such that the base **111**, the top surface **112**, and/or the cylindrical surface **113** may form a cylinder.

[0041] The applicator **120** may be constructed of a foam (e.g., polyurethane foam), a sponge, and a microfiber, but is not limited thereto.

[0042] The applicator **120** may be movably disposed on and/or within at least a portion of the main body **110**. More specifically, the applicator **120** may be disposed on and/or within at least a portion of a center of the top surface **112**. The applicator **120** may at least partially extend above a surface of the top surface **112**. As such, the applicator **120** may protrude away from the top surface **112**.

[0043] Furthermore, the applicator **120** may at least partially deform (e.g., bend, stretch) in response to an application of force (e.g., pushing, pulling) thereto. In other words, the applicator **120** may move and/or compress in response to being depressed.

[0044] The applicator **120** may include a dispensing aperture **121**, but is not limited thereto.

[0045] The dispensing aperture **121** may be disposed on at least a portion of a center of the applicator **120**. Moreover, the dispensing aperture **121** may dispense the at least one liquid from the main body **110** in response to depressing the applicator **120**. As such, the applicator **120** may absorb and/or be coated with the at least one liquid from the main body **110** in response to depressing the applicator **120**. Subsequently, the applicator **120** may be moved (e.g., rubbed, glides) over a body of a user to apply sunscreen.

[0046] The valve **130** may be disposed within at least a portion of the main body **110** and/or connected to the applicator **120**. The valve **130** may be opened in response to depressing the applicator **120**, such that the dispensing aperture **121** may receive the at least one liquid moving through the valve **130** from the main body **110**. In other words, the valve **130** may release the at least one liquid from the main body **110** to the applicator **120** in response to depressing the applicator **120**. Conversely, the valve **130** may remain closed while the applicator **120** has an absence of the application of force. In other words, the valve **130** may be closed while the applicator **120** is not being depressed. As such, the valve **130** may prevent the at least one liquid from moving through the valve **130** while the applicator **120** is not in use. Therefore, the valve **130** may be a one-way valve.

[0047] The lid **140** may be removably connected to at least a portion of the main body **110**. Moreover, the lid **140** may cover and/or enclose the applicator **120** therein while connected to the main body **110**.

[0048] The lid **140** may include a recessed surface **141**, but is not limited thereto.

[0049] The recessed surface **141** may be disposed on at least a portion of a center of the lid **140**. The recessed surface **141** may be recessed with respect to an outer edge of the lid **140**. Additionally, the recessed surface **141** may receive the applicator **120** therein. The recessed surface **141** may have a size (e.g., a height, a circumference) corresponding to a size (e.g., a height, the circumference) of the applicator **120**. Accordingly, the applicator **120** may snugly fit within the recessed surface **141**. The recessed surface **141** may form an airtight and water tight seal while disposed over the applicator **120** and/or the lid **140** remains connected to the main body **110**. Thus, the lid **140** and/or the recessed surface **141** may prevent evaporation of the sunscreen from the applicator **120** while connected to the main body **110**.

[0050] Therefore, the sunscreen application device **100** may prevent hands of the user from getting greasy and/or

having residue thereon due to touching the at least one liquid. As such, the sunscreen application device **100** may prevent the hands of the user from getting sticky and/or slippery. Also, the sunscreen application device **100** may avoid having to use a separate device to apply the sunscreen due to being an all-in-one device.

**[0051]** The present general inventive concept may include a sunscreen application device **100**, including a main body **110** to store at least one liquid therein, and an applicator **120** movably disposed on and within at least a portion of the main body **110** to dispense the at least one liquid from the main body **110** in response to depressing the applicator **120**.

**[0052]** The main body **110** may include a base **111**, a top surface **112** having a size equivalent to a size of the base **111**, and a cylindrical surface **113** perpendicularly disposed away from the base **111** toward the top surface **112** to connect the base **111** to the top surface **112**.

**[0053]** The applicator **120** may be disposed on and within at least a portion of a center of the top surface **112** and protrudes away from the top surface **112**.

**[0054]** The applicator **120** may at least partially deform in response to an application of force thereto.

**[0055]** The applicator **120** may include a dispensing aperture **121** disposed on at least a portion of a center of the applicator **120** to dispense the at least one liquid from the main body **110** in response to depressing the applicator **120**.

**[0056]** The sunscreen application device **100** may further include a valve **130** disposed within at least a portion of the main body **110** and connected to the applicator **120** to release the at least one liquid from the main body **110** to the applicator **120** in response to depressing the applicator **120**.

**[0057]** The sunscreen application device **100** may further include a lid **140** removably connected to at least a portion of the main body **110** to cover the applicator **120**.

**[0058]** The lid **140** may include a recessed surface **141** disposed on at least a portion of a center of the lid **140** to receive the applicator **120** therein and prevent evaporation of the at least one liquid from the applicator **120** while the lid **140** remains connected to the main body **110**.

**[0059]** Although a few embodiments of the present general inventive concept have been shown and described, it will be appreciated by those skilled in the art that changes may be made in these embodiments without departing from the principles and spirit of the general inventive concept, the scope of which is defined in the appended claims and their equivalents.

1. A sunscreen application device, comprising:
  - a main body to store at least one liquid therein; and
  - an applicator movably disposed on and within at least a portion of the main body to dispense the at least one liquid from the main body in response to depressing the applicator, such that the applicator has a planar top surface and has an absence of material of the applicator at a center thereof, such that the absence of material extends from an interior of the main body through the applicator to the planar top surface.

2. The sunscreen application device of claim 1, wherein the main body comprises:

- a base;
- a top surface having a size equivalent to a size of the base; and
- a cylindrical surface perpendicularly disposed away from the base toward the top surface to connect the base to the top surface.

3. The sunscreen application device of claim 2, wherein the applicator is disposed on and within at least a portion of a center of the top surface and protrudes away from the top surface.

4. The sunscreen application device of claim 1, wherein the applicator at least partially deforms in response to an application of force thereto.

5. The sunscreen application device of claim 1, wherein the applicator comprises:

- a dispensing aperture disposed on at least a portion of a center of the applicator to dispense the at least one liquid from the main body in response to depressing the applicator.

6. The sunscreen application device of claim 1, further comprising:

- a valve disposed within at least a portion of the main body and connected to the applicator to release the at least one liquid from the main body to the applicator in response to depressing the applicator.

7. The sunscreen application device of claim 1, further comprising:

- a lid removably connected to at least a portion of the main body to cover the applicator.

8. The sunscreen application device of claim 7, wherein the lid comprises:

- a recessed surface disposed on at least a portion of a center of the lid to receive the applicator therein and prevent evaporation of the at least one liquid from the applicator while the lid remains connected to the main body.

9. A sunscreen application device, comprising:

- a main body to store at least one liquid therein;
- an applicator movably disposed on and within at least a portion of the main body to dispense the at least one liquid from the main body in response to depressing the applicator, such that the applicator has a planar top surface and has an absence of material of the applicator at a center thereof, such that the absence of material extends from an interior of the main body through the applicator to the planar top surface; and
- a lid removably connected to a top surface of the main body to cover the applicator, the lid comprising:
  - a recessed surface disposed on at least a portion of a center of the lid to receive the applicator therein and forming an airtight and a water tight seal while disposed over the applicator.

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