CONTAINER FOR POWDER PRODUCTS

Inventors: Leo Clifford PIRES, Basking Ridge, NJ (US); Roger HWANG, Maple (CA); Rahul BOSE, New Delhi (IN); Santosh MOHAPATRA, New Delhi (IN); Manisha KOHLI, New Delhi (IN)

Assignee: Zen Design Solutions Limited, Kowloon (HK)

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ABSTRACT
The present invention generally relates to containers for powder products. The present invention described herein relates to a container capable of generating powder in loose form.

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CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims benefit of U.S. Provisional Application Ser. No. 61/237,285, filed Aug. 26, 2009, which is incorporated by reference in its entirety.

BACKGROUND

[0002] 1. Field of the Invention

[0003] Embodiments of the present invention generally relate to a container for powder products. The present invention described herein relates to a container capable of generating powder in loose form.

[0004] The container of the present invention can be used to store a wide variety of powder cosmetic products.

[0005] 2. Description of the Related Art

[0006] The cosmetic industry generally uses cosmetic containers to store cosmetic compositions. A conventional case has a base and a cover which is pivotally attached to the base in which is provided a receptacle to receive the cosmetic product therein. Powder cosmetic products are an important class of cosmetics which find application in a plurality of cosmetic uses. Generally these are available in two forms either pressed or loose. Loose powder and pressed powder can be used on different occasions and times. The loose powder is usually used when applying for the first time. The pressed powder is good when re-application of make-up is required or for just doing the touch-ups later on. Loose powder containers are generally bulkier while the pressed powder containers are available in a compact form. The biggest disadvantage with loose powder is the fact that it can be quite messy and the user can not carry it in her make-up case or purse. Since loose powder is not easy to carry, the user generally uses loose form at home before going out and carries the pressed powder with her for use during the day. A pressed powder compact is easy to carry around without fear of destroying your pocketbook or spilling the powder. As is evident, there is a place for both pressed powder and loose powder in a woman’s make-up collection. Working together, they give a quick and convenient way to subtly enhance complexion.

[0007] There have been attempts at making the container portable and at the same time making loose powder available to the user as per convenience. There are available pressed powder compacts that convert pressed to loose powder. Great Britain Patent No. 2,236,673 to Lir France discloses a powder compact containing a compounded powder receiving base, a lid and a scraper movable relative to the base for producing free loose powder.

[0008] However, the above container is inconvenient to the user as the user is unable to get a clue of the product getting finished. As the scraper always remains at a fixed position the user may keep rotating the scraper to get loose powder without knowing that the product below has finished.

[0009] Therefore it is desirable that there is available a container for generating loose powder that can give an indication to the user of the amount of the product remaining as the product is utilized.

[0010] Therefore, there is a need for a container that provides efficient conversion of pressed powder to produce loose powder. There is also a need for a container for generating loose powder that can give an indication to the user of the amount of the product remaining as the product is utilized. Further, it is also desirable that the container is portable and provides a cleaner and user-friendly interface to reveal the product stored therein.

SUMMARY

[0011] The present invention generally relates to containers for powder products. The present invention described herein relates to a container capable of generating powder in loose form.

[0012] According to an embodiment of the invention there is provided a container that is compact in form that can be easily carried in purse and at the same time gives the user freshly milled loose powder as per the convenience and requirement of the user.

[0013] According to yet another embodiment of the invention there is provided a container that converts the pressed powder to loose powder efficiently and provides full evacuation of the product. The container of present invention is easy-to-use and does not create mess for the user.

[0014] According to yet another embodiment of the invention there is provided a container for powder products capable of generating loose powder as per the convenience of the user. There is also provided a container that gives an indication of the amount of product remaining in the container to the user as the product gets utilized.

[0015] According to yet another embodiment of the present invention there is provided a cosmetic container having an axially travel down scraper system which allows the visual indication of the amount of product remaining in the cosmetic container.

[0016] According to yet another embodiment of the invention there is provided a container that is compact in form that can be easily carried in purse and at the same time gives the user freshly milled loose powder as per the convenience and requirement of the user. The container is easy-to-use and does not leave mess for the user.

[0017] According to yet another embodiment of the invention the container for generating loose powder comprises a base, a cover and a scraper. The base and cover are connected by a suitable attachment means in a manner permitting their relative movement with respect to one another to open and close the container. The attachment means may comprise a hinge, a snap, a hook, a screw, a magnet or any suitable means. In an alternative embodiment of the invention, the inside surface of the cover may be provided with a reflector such as a mirror. The base may comprise of a lower base and an upper base, said lower and upper base being rotatably connected to each other. The lower base houses a receptacle for storing the powder product. The upper base houses the axially travel down scraper system, said scraper system comprising a scraper and a biasing means. The scraper and the biasing means are so arranged that the scraper remains biased towards the receptacle. Further, the receptacle remains at a static position in the lower base while the scraper in the upper base is arranged to be axially movable while its rotational movement with respect to the upper base is restricted.

[0018] According to yet another embodiment of the present invention a locking means is provided in the cover and base to prevent opening of container when not in use. The locking means may comprise of a fastener piece on the cover that matches a fastener unit on the base for securing purpose. Further, a snap, a magnet or a button or any suitable locking means could be provided to secure the container.
In accordance with yet another embodiment of the invention there may be provided a scraper holder for holding the scraper in place. The scraper holder is then arranged to be axially movable while its rotational movement with respect to the upper base is restricted. Also, alternatively a receptacle holder may be provided to keep the receptacle in place. Furthermore, according to an alternative embodiment the lower base may be so configured to allow the receptacle to be replaced, thereby making the container refillable.

In accordance with yet another embodiment of the invention the scraper aids in milling of the pressed powder product contained in the receptacle. The scraper has a suitable scraping profile on it wherein the profile may be a projection, a blade, a tooth or any other suitable profile. Further, the scraper may have any suitable shape and may occupy at least a section of the base for scraping the pressed product. The scraper may have any suitable cross-section and profile.

According to yet another embodiment of the invention, during operation, the user rotates the lower base with respect to the upper base which causes the scraping of the pressed powder in the receptacle by the scraper. As the scraper is always biased towards the receptacle while the receptacle is static in the lower base, the scraper moves axially downwards as the product level in the receptacle goes down thereby indicating to the user the amount of product remaining in the container post-usage.

In accordance with yet another embodiment of the invention the cover and the lower base are so arranged as to restrict the relative movement of the upper and lower base in closed condition of the container. The cover and the lower base may be provided with a suitable locking arrangement to lock the lower base from being rotated while the container is closed. The locking arrangement may comprise of complementary profiles on the cover and the lower base that get engaged when the container is closed thereby restricting the movement of the lower base with respect to the upper base.

According to yet another embodiment of the invention the base may also serve as a guiding tool with mark indicia providing additional information about the amount of product remaining in the container to the consumers. For example, the mark indicia may be present on the inner surface of upper base and may help in identification of the percentage of product remaining in the container depending on the position of the scraper.

In accordance with another embodiment of the invention the container for generating loose powder may be made to be airtight.

In accordance with another embodiment of the invention the container may be of any shape such as square, rectangular, circular polygonal or any suitable shape, such that the cover and the base having identical configuration of varying depths.

These and further aspects which will be apparent to the expert of the art are attained by a container for powder products in accordance with the main claim.

DETAILED DESCRIPTION

FIG. 1 shows one embodiment of the present invention illustrating the perspective view of a container 200 in a closed storage position. As illustrated in FIGS. 1, 2, 3 and 4, the container 200 comprises a base 210 and a cover 215. The base 210 and cover 215 are connected by an attachment means 225 in a manner permitting relative movement with respect to one another to open and close the container 200. The attachment means 225 may comprise a hinge, a snap, a hook, a screw, a magnet or any suitable means. In an alternative embodiment of the invention, the inside surface of the cover 215 may be provided with a reflector such as a mirror. The base 210 may comprise a lower base 210a and an upper base 210b. The lower base 210a and the upper base 210b are rotatably connected to each other. The lower base 210a houses a receptacle 230 for storing the powder product. Further, alternatively a receptacle holder may be provided to keep the receptacle 230 in place. Furthermore, according to an alternative embodiment the lower base 210a may be so configured to allow the receptacle 230 to be replaced, thereby making the container 200 refillable.

As shown in FIGS. 2, 3 and 4, the upper base 210b houses an axially travel down scraper system, said system comprises a scraper 220 and a biasing means 235. The biasing means 235 may comprise of but is not limited to a spring, a bellow, a sponge, and any other suitable biasing means. The scraper 220 and the biasing means 235 are so arranged that the scraper 220 remains biased towards the receptacle 230. Further, the receptacle 230 remains at a static position in the lower base 210a while the scraper 220 in the upper base 210b is arranged to be axially movable while its rotational movement with respect to the upper base 210b is restricted. Further, there is provided a scraper holder 245 for holding the scraper 220 in place. The scraper holder 245 is then arranged to be axially movable while its rotational movement with respect to the upper base 210b is restricted. The scraper 220 aids in milling of the pressed powder product contained in the receptacle 230. The scraper 220 has a suitable scraping profile on it.
wherein the profile may be a projection, a blade, a tooth or any other suitable profile. The size and density of the scraping profiles may vary but are kept sufficient enough to produce required loose form of the powder. Further, the scraper 220 may have any suitable shape and may occupy at least a section of the upper base 210b for scraping the pressed product. The scraper 220 may have any suitable cross-section and profile. [0038] As shown in FIG. 3, a locking means 240 is provided in the cover 215 and base 210 to prevent opening of container 200 when not in use. The locking means 240 comprises of a fastener piece 240a on the cover 215 that matches a fastener unit 240b on the base 210 for securing purpose. Further, a snap, a magnet or a button or any suitable locking means may be provided to secure the container 200.

[0039] The FIGS. 5a, 5b and 5c depict the movement of the scraper 220 axially downwards as the product is utilized in the container 200. During operation, the user rotates the lower base 210a to rotate the blade 210b which causes the milling of the pressed powder in the receptacle 230 by the scraper 220. As the scraper 220 is always biased towards the receptacle 230 while the receptacle 230 is static in the lower base 210a, the scraper 220 moves axially downwards as the product level in the receptacle 230 goes down thereby indicating to the user the amount of product remaining in the container 200 post-usage. FIG. 5a shows the initial position of the scraper 220 when the container is filled with the product. FIG. 5b shows the downward displacement of the scraper 220 as the product is utilized while FIG. 5c shows the scraper 220 touching the base 210 when the product has been finished.

[0040] As illustrated by FIG. 6 the cover 215 and the lower base 210a are provided with a locking arrangement 250 as to restrict the relative movement of the upper 210b and lower base 210a in closed condition of the container 200. The cover 215 and the lower base 210a are provided with complementary profiles 250a and 250b on the cover 215 and the lower base 210a respectively that get engaged when the container 200 is closed thereby restricting the movement of the lower base 210a with respect to the upper base 210b. The complementary profiles 250a and 250b on the cover 215 and the lower base 210a are shown to be a toothed profile however any suitable profiles may be provided that get engaged when the container is closed thereby restricting the movement of the lower base with respect to the upper base. The locking arrangement 250 to lock the lower base 210a from being rotated while the container 200 is closed may comprise of any other suitable arrangement as well.

[0041] As illustrated by FIG. 7, the complementary profiles 250a and 250b on the cover 215 and the lower base 210a get disengaged when the container 200 is opened, thereby making the lower base 210a available for rotation with respect to the upper base 210b for generating loose powder.

[0042] The container 200 may also serve as a guiding tool with mark indicia providing additional information about the amount of product remaining in the container to the consumers as the scraper moves axially downwards in the container. The mark indicia may be present at any suitable surface of the base. For example, the mark indicia could help in identification of the percentage of product remaining in the container depending on the position of the scraper.

[0043] All the components of the container 200 may be fabricated in a generally conventional manner using any suitable polymer material such as ABS, SAN, etc. while any reflective material could be used as mirror. The material for biasing means and scraper may be any metal or any other suitable polymeric material.

[0044] The container 200 may be of any shape such as square, rectangular, circular, polygonal or any suitable shape, such that the cover 215 and the base 210 having identical configuration of varying depths.

[0045] While the foregoing is directed to embodiments of the present invention, other and further embodiments of the invention may be devised without departing from the basic scope thereof, and the scope thereof is determined by the claims that follow.

What is claimed is:

1. A container for generating loose powder comprising: a base, said base comprising a lower base and an upper base; a cover; and an axially travel down scraper system, said system comprising a scraper, and a biasing means; wherein the lower base houses a receptacle for storing the powder product and the upper base houses the axially travel down scraper system and wherein said lower and upper base are rotatably connected to each other and wherein the biasing means biases the scraper towards the receptacle and wherein the scraper in the upper base is arranged to be axially movable.

2. The container of claim 1 wherein the base and cover are connected by a suitable attachment means in a manner permitting their relative movement with respect to one another to open and close the container.

3. The container of claim 1 wherein the receptacle remains at a static position in the lower base while the scraper in the upper base is arranged to be axially movable while its rotational movement with respect to the upper base is restricted.

4. The container of claim 1 wherein the container further comprises a scraper holder for holding the scraper in place and wherein the scraper holder is arranged to be axially movable while its rotational movement with respect to the upper base is restricted.

5. The container of claim 1 wherein the container is refillable.

6. The container of claim 1 wherein the cover and the lower base are so arranged as to restrict the relative movement of the upper and lower base in closed condition of the container.

7. The container of claim 1 wherein the container for generating loose powder is airtight.

8. The container of claim 1 comprising an axially travel down scraper mechanism to scrape the pressed powder product.

9. The container of claim 8 wherein the axially travel down scraper mechanism includes axially downward movement of the scraper as the product level in the container reduces.

10. A method to scrape the pressed powder product contained in the container of claim 1, the method comprising: a) rotating the lower base with respect to the upper base which causes the scraping of the pressed powder in the receptacle by the scraper.

11. The method of claim 10 wherein the scraper is biased towards the receptacle while the receptacle is static in the lower base, the scraper moves axially downwards as the product level in the receptacle goes down thereby indicating to the user the amount of product remaining in the container post-usage.

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