

TITLE

A handheld device and a method for creating customised colours instantly.

FIELD OF THE INVENTION

[0001] The present invention relates to creating multiple customised colours using one or more primary colours. More specifically, the present invention relates to a handheld device and a method that enables users to create their own custom colour lipglosses instantly anywhere.

BACKGROUND ART

[0002] The global cosmetics market is growing at the rate of about 4% every year. Colour cosmetics (or makeup) segment is one of the largest contributors towards this growth. Colour cosmetics has recently joined other lifestyle segments such as clothing, perfumery etc. in the popular trends towards customisation and personalisation.

[0003] One of the first segments in colour cosmetics industry to embrace customisation was liquid foundations. Services wherein consultants mix the perfect shade for a user in-store or via an order placed online is known in the art. Similarly, customisation of lip colours in-store or online is known in the art. Another device enables users to 'print' their custom lip colours on a table top lipstick printer.

[0004] While these products or services known in the art appease the consumer's need for customised products, those skilled in the art will realise that they either have a long wait time or the devices are very bulky to travel with. Also, consumers only receive a couple of customised colours at a time making it difficult to use repeatedly.

[0005] Today's consumers are impatient and actively seek to get more value for their money. Moreover, consumers are becoming more eco-conscious and

have shown a preference for smaller product quantities and reusable packaging to reduce product and packaging wastage.

[0006] There are no known products in the art that enable a user to instantly create their own colours (for lipstick, eye colours, foundations etc.) in the comfort of their homes or while travelling.

[0007] Keeping in mind this pressing need of the market and environment, the present invention discloses a handheld device and a method thereof to enable consumers to create their own customised colours instantly.

BRIEF SUMMARY OF THE INVENTION

[0008] The present invention discloses a handheld device and a method to enable a user to create their very own custom colours instantly anywhere. The proposed application of the handheld device is for liquid lipsticks, however, variations of the present invention to create any cosmetics or liquid colour of semi solid/solid or liquid consistency are foreseen and are within the scope of the present invention.

[0009] The handheld device comprises of one or more slots to house one or more dispensers, wherein each dispenser contains a liquid lipstick of a specific primary colour. The primary colours can follow any colour system such as RYB (Red, Yellow, Blue, White, Black), CMYK (Cyan, Magenta, Yellow, Key), RGB (Red, Green, Blue, White, Black) etc.

[0010] To create a specific colour, a user refers to a colour recipe chart and pumps each of the dispensers the number of times mentioned in the cells corresponding to the specific colour and the primary colour in the colour recipe chart. When the user pumps each dispenser, the liquid lipstick inside the dispensers falls into a container attached to the handheld device. The user then mixes all of the dispensed liquid lipstick with a wand to create their desired specific colour.

[0011] The user can create any number of different colour liquid lipsticks in accordance with the present invention and also store created liquid lipsticks for later use.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The various aspects, features, and advantages of the present invention will become more apparent in light of the following detailed description of the preferred embodiment when taken in conjunction with the accompanying drawings in which:

[0013] FIG. 1 illustrates a dispenser 100 known in the art for dispensing viscous liquids.

[0014] FIG. 2 illustrates a handheld device for creating customised colours in accordance with various embodiments of the present invention.

[0015] FIG. 3 illustrates the handheld device with five dispensers inserted inside.

[0016] FIG. 4 illustrates a perspective view of the handheld device in accordance with an embodiment of the present invention.

[0017] FIG. 5 is a vertical cross sectional view of the handheld device in accordance with an embodiment of the present invention.

[0018] FIG. 6 depicts a colour recipe chart in accordance with an embodiment of the present invention.

[0019] FIG. 7 describes a flowchart of a method of creating custom colours using the handheld device in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION

[0020] The present invention is described with reference to the attached figures, wherein like reference numerals are used throughout the figures to designate similar or equivalent elements. The figures are not drawn to scale and they are provided merely to illustrate the instant invention. Several aspects of the invention are described below with reference to example applications for illustration. It should be understood that numerous specific details, relationships, and methods are set forth to provide a full understanding of the invention. One with ordinary skill in the relevant art, however, will readily recognize that the invention can be practiced without one or more of the specific details or with other methods. In other instances, well-known structures or operations are not shown in detail to avoid obscuring the invention. The present invention is not limited by the illustrated ordering of acts or events, as some acts may occur in different orders and/or concurrently with other acts or events. Furthermore, not all illustrated acts or events are required to implement a methodology in accordance with the present invention.

[0021] Spatially relative terms, such as “beneath,” “below,” “lower,” “above,” “upper,” and the like may be used herein for ease of description to describe one element or a relationship between a feature and another element or feature as illustrated in the figures. It will be understood that the spatially relative terms are intended to encompass different orientations of the device in use or operation in addition to the orientation depicted in the figures. For example, if the device in the figures is turned over, elements described as “below” or “beneath” other elements or features would then be oriented “above” the other elements or features. Thus, for example, the term “below” can encompass both an orientation which is above as well as below. The device may be otherwise oriented (rotated 90 degrees or viewed or referenced at other orientations) and the spatially relative descriptors used herein should be interpreted accordingly.

[0022] The present invention will now be described by referencing the appended figures representing preferred embodiments. FIG. 1 depicts a dispenser 100 for viscous liquids already known in the art. The dispenser 100 is used as a colour cartridge in the present invention. The term 'cartridge' and 'dispenser' may be used interchangeably for the purposes of this description.

[0023] In the preferred embodiment of the present invention, the dispenser 100 is airless, however, those skilled in the art will appreciate that some embodiments of the present invention may entail the use of dispensers with regular pump mechanism without compromising on the functionality or the results.

[0024] The dispenser 100 is conventionally known in the art for dispensing viscous liquids such as serums or creams. However, in accordance with various embodiments of the present invention, the dispenser 100 is used to dispense a liquid lipstick 101. The liquid lipstick 101 can be, but is not limited to, a primary colour of a colour system such as RYB, CMYK, RGB etc. or an additive to transform the finish of the liquid lipsticks. For instance, the liquid lipstick 101 can be, but is not limited to, a white colour, a black colour, a blue colour, a red colour, a yellow colour, a mattifier agent, a shine agent or a sparkle agent.

[0025] The dispenser 100 dispenses a predetermined amount of the liquid lipstick 101 through a hole 102 in a nozzle 103 when the nozzle 103 is pressed down. With each push of the nozzle 103, the predetermined amount of the liquid lipstick 101 enters an inlet 104 of the nozzle 103, and consequently, air enters an empty area 105 through a hole 106 in a bottom lid 107 of the dispenser 100 to replace the dispensed liquid lipstick and a movable plate 108 moves the liquid lipstick 101 upwards by a proportional amount.

[0026] In accordance with an embodiment of the present invention, one or more of the dispenser 100 are used as cartridges to dispense predetermined amounts of different liquid lipsticks into a jar, which when mixed, create various different colours or textures of liquid lipsticks.

[0027] FIG. 2 illustrates a handheld device 200 in accordance with an embodiment of the present invention wherein the handheld device 200 is designed to house five dispensers similar to the dispenser 100. FIG. 2 depicts the handheld device 200 designed to house a dispenser 201, a dispenser 202, a dispenser 203, a dispenser 204 and a dispenser 205. Each dispenser dispenses a different liquid lipstick. For example, the dispenser 201 may dispense a white colour liquid lipstick, the dispenser 202 may dispense a black colour liquid lipstick, the dispenser 203 may dispense a red colour liquid lipstick, the dispenser 204 may dispense a blue colour liquid lipstick and the dispenser 205 may dispense a yellow colour liquid lipstick. This colour scheme of red, blue and yellow is known in the art as the RYB colour scheme. White and black colours are used to change the hue and the tone of the colours respectively.

[0028] The handheld device 200 comprises one or more slots to house the one or more dispensers. For instance, the handheld device 200 comprises a slot 206 to house the dispenser 201, a slot 207 to house the dispenser 202, a slot 208 to house the dispenser 203, a slot 209 to house the dispenser 204 and a slot 210 to house the dispenser 205. The slots are moulded such that the dispensers fit snugly into the handheld device with minimum wobble or relative movement.

[0029] The handheld device 200 with the dispenser 201, the dispenser 202, the dispenser 203, the dispenser 204 and the dispenser 205 inserted inside the one or more slots is shown in conjunction with FIG. 3 below.

[0030] In accordance with an embodiment of the present invention, the handheld device 200 further comprises a top lid 211 and a container 212.

[0031] In accordance with the present embodiment, the top lid 211 comprises an arc cutout 213 such that the arc cutout 213 exactly matches the dimensions of the outer circumference of the dispensers.

[0032] The top lid 211 fits into the top portion of the handheld device 200 such that the top lid 211 freely rotates around the top portion of the handheld device 200 with the dispenser 201, dispenser 202, dispenser 203, dispenser 204 and dispenser 205 inserted inside.

[0033] Furthermore, when rotated, the top lid 211 stops at one or more predetermined positions along the rotation path. The one or more predetermined positions are such that the arc cutout 213 aligns directly above each of the dispensers in the one or more slots. Those with ordinary skill in the art will realise that the mechanism described in the current embodiment enables a user to rotate the top lid 211 and position the arc cutout 213 directly above the desired dispenser. The user can then push the desired dispenser through the arc cutout 213 to dispense the desired liquid lipstick.

[0034] In accordance with another embodiment of the present invention, the top lid 211 is without the arc cutout 213 and is used only to secure the five dispenser in place. During usage, a user is required to remove the top lid 211 and press their desired dispenser individually.

[0035] In yet another embodiment of the present invention, the top lid 211 is without the arc cutout 213 and has a push-click mechanism. The top lid 211 rotates freely about the handheld device 200 and stops at each dispenser. The user can rotate the top lid 211 to their desired dispenser and push-click the top lid 211 to dispense the liquid lipstick inside the dispenser.

[0036] In accordance with various embodiment of the present invention, the container 212, when attached to the handheld device 200, can collect the dispensed liquid lipstick.

[0037] The user can dispense liquid lipsticks from any of the five dispensers in any amounts (or number of pushes) to create multiple colors or textures of liquid lipstick. Those skilled in the art will appreciate that with each push of the dispenser, approximately same amount of liquid lipstick is dispensed each time.

Consequently, a colour recipe chart 600 (described in detail in FIG. 6 below) can be formulated and provided to the user which has 'recipes' for multiple colours, wherein a number of pushes of the colours red, yellow, blue, white and black can be listed to create any colour.

[0038] Once the user dispenses the desired amount of one or more liquid lipsticks from the dispensers into the container 212, they can detach the container 212 from the handheld device 200 and mix the dispenser liquid lipsticks with a mixing wand and create the desired colour.

[0039] The container 212 comes with a lid so that the created liquid lipstick can be stored for later use.

[0040] FIG. 3 illustrates the handheld device 200 with the five dispensers, viz. the dispenser 201, the dispenser 202, the dispenser 203, the dispenser 204 and the dispenser 205 inserted inside the five slots, viz. the slot 206, the slot 207, the slot 208, the slot 209 and the slot 210 respectively.

[0041] The accordance with an embodiment of the present invention, the handheld device 200 has colour marking next to each slot to enable a user to insert the dispensers in their respective slots. For instance, a dispenser with white liquid lipstick can be inserted inside a slot with white marking, a dispenser with red liquid lipstick can be inserted inside a slot with red marking, and so on and so forth.

[0042] It will however be appreciated by one skilled in the art that the markings are only a guide for a user to afford a better user experience and does not have any functional impact on the handheld device 200.

[0043] Furthermore, in accordance with an embodiment of the present invention, the dispensers are transparent such that a user is able to see the liquid lipstick colour and level. In accordance with this embodiment, the handheld device 200 comprises one or more indicator cutouts for each slot, such that the

level of the liquid lipstick can be seen through the one or more indicator cutouts when the dispensers are inserted in the slots.

[0044] For instance, as shown in FIG. 3, a user is able to see the colour and level of the liquid lipstick in the dispenser 201 through an indicator cutout 301 in the slot 206. Similarly, the user is able to see the colour and level of the liquid lipstick in the dispenser 205 through an indicator cutout 302 in the slot 210 and the colour and level of the liquid lipstick in the dispenser 204 through an indicator cutout 303 in the slot 209. Indicator cutouts for the slot 207 and the slot 208 are not shown in FIG. 3 but are understood to be present.

[0045] When the level of liquid lipstick in any of the dispensers reaches below a predetermined mark, the user can replace that dispenser with a new dispenser (cartridge).

[0046] In accordance with an embodiment of the present invention, the dispensers, when inserted completely into the slots, have a predetermined length of tail end that remains outside the slots. The predetermined length of tail end corresponds to the distance of full push of the dispenser, such that when a user presses an inserted dispenser, they can push the dispenser to its full capacity easily without hitting a top surface 304 of the handheld dispenser 200.

[0047] Those skilled in the art will appreciate that other embodiments with different arrangement of insertion of the dispenser and dispensation of the liquid lipstick are envisioned and are within the scope of the present invention.

[0048] FIG. 4 illustrates a perspective view of the handheld device 200 in accordance with an embodiment of the present invention, wherein dispensers are not inserted into the slot 206, the slot 207, the slot 208, the slot 209 and the slot 210.

[0049] Those skilled in the art will realise that the handheld device 200 has a center space 401. The center space 401 can be a cavity in accordance with an

embodiment of the present invention in order to reduce the overall weight of the handheld device 200. Also, the center space 401 can be used to hold a colour recipe chart described in FIG. 6 below.

[0050] Those skilled in the art will appreciate that various shapes of the handheld device 200 can be envisioned, as long as the basic functionality of the handheld device 200 remains the same.

[0051] FIG. 5 is a vertical cross sectional view of the handheld device 200 in accordance with an embodiment of the present invention, wherein dispensers are not inserted into the slot 206 and the slot 208.

[0052] In accordance with this embodiment, the slot 206 and the slot 208 have a groove 501 and a groove 502 such that the dispensers fit perfectly into the slot 206 and the slot 208. A mechanism for holding the dispensers in place can be built inside of the slots so that when the handheld device 200 is flipped upside down without the top lid 211, the dispensers don't fall off.

[0053] FIG. 6 depicts a colour recipe chart 600 in accordance with an embodiment of the present invention.

[0054] The colour recipe chart 600 comprises a column 601, a column 602, a column 603, a column 604 and a column 605 corresponding to the colours of the liquid lipstick in the dispenser 201, the dispenser 202, the dispenser 203, the dispenser 204 and the dispenser 205 respectively. One or more rows 606 of the colour recipe chart 600 correspond to various colours that can be created with permutations and combinations of the colours in the columns.

[0055] For instance, in accordance with an embodiment of the present invention, the column 601 corresponds to the colour red, the column 602 corresponds to the colour blue, the column 603 corresponds to the colour yellow, the column 604 corresponds to the colour black and the column 605 corresponds to the colour white.

[0056] The one or more rows 606 correspond to the various colours that can be obtained when the colours red, blue, yellow, black and white are mixed in various ratios. The numbers corresponding to the ratios are written in the respective cells.

[0057] It will be obvious to those skilled in the art that presentation of the chart may vary and may have recipes for any number of colours, and all such embodiments are within the scope of the present invention.

[0058] In an embodiment of the present invention, the colour recipe 600 is stored in the center space 401 inside the handheld device 200.

[0059] In another embodiment of the present invention, the colour recipe chart 600 can be printed on the handheld device 200 itself.

[0060] In another embodiment of the present invention, the colour recipe chart 600 can be attached to the handheld device 200 with a roll out mechanism.

[0061] In yet another embodiment of the present invention, the colour recipe chart 600 can be available to the user via an App on their smart devices.

[0062] FIG. 7 describes a flowchart of a method of creating custom colours using the handheld device 200 in accordance with an embodiment of the present invention.

[0063] At step 701, a user takes the handheld device 200 and checks if all the five dispensers, viz. the dispenser 201, the dispenser 202, the dispenser 203, the dispenser 204 and the dispenser 205 are inserted properly inside the slots in the handheld device 200. If not, then the user inserts the dispenser 201, the dispenser 202, the dispenser 203, the dispenser 204 and the dispenser 205 into the slots, at step 702.

[0064] Once the dispensers are inserted into the handheld device 200, the user attaches the top lid 211 to the handheld device 200, at step 703. Those skilled in the art will appreciate that other embodiments wherein the top lid 211 is not required to be attached to the handheld device for usage are envisioned and are within the scope of the present invention.

[0065] At step 704, the user ensures that the container 212 is attached to the handheld device 200. The container 212 needs to be clean, without any other colour liquid lipstick, in order to get accurate results.

[0066] At step 705, the user refers to the colour recipe chart 600 and selects a colour that they wish to create from the one or more rows 606. The columns corresponding to the selected colour comprises the number of pumps of each colour required to create the selected colour.

[0067] As mentioned earlier, each column in the colour recipe chart 600 represents a dispenser that dispenses a liquid lipstick of that colour.

[0068] At step 706, the user rotates the top lid 211 so that the arc cutout 213 is positioned above one of the dispensers.

[0069] The user then pumps the dispenser the number of times mentioned in the recipe for the selected colour, at step 707.

[0070] At step 708, the user repeats step 706 and step 707 for each dispenser represented in the recipe of the selected colour till all the dispensers mentioned in the recipe of the selected colour are pumped out into the container 212.

[0071] At step 709, the user removes the container 212 from the handheld device 200 and mixes the dispenses liquid lipsticks with a wand to create the selected colour.

[0072] Those skilled in the art will realise that the colour recipe chart 600 can comprise the ratios of the colours in the columns to be mixed to create any colour. A user can create a larger amount of selected colour by pumping the dispensers more number of times while retaining the ratios in the recipe of the selected colour.

[0073] In an embodiment of the present invention, the container 212 comes with a cover so that the created colour of liquid lipstick can be stored for future use.

[0074] In another embodiment of the present invention, the selected colour of liquid lipstick is created on a pan to be used immediately.

[0075] Those with ordinary skill in the art may appreciate that the handheld device 200 can be designed for any number of dispensers. For instance, the handheld device 200 can be built for six dispensers, wherein the first five dispensers dispense the five primary colours mentioned in the above embodiment, and the sixth dispenser dispenses a mattifier liquid to transform the final mixture to a 'matte' effect liquid lipstick.

[0076] Moreover, in an embodiment of the present invention, the liquid lipstick colours in the dispensers may follow the CMYK (Cyan, Magenta, Yellow and Key) system for colour creation. In yet another embodiment of the present invention, the colours in the dispensers are RGB (Red, Green and Blue) instead of the RYB (Red, Yellow and Blue) as described in the above preferred embodiment.

[0077] In an embodiment of the present invention, the handheld device 200 is made of a composite material such as Fiber-Reinforced Plastic (FRP) to insulate the liquid lipstick inside the dispensers from drastic temperature changes.

[0078] In an alternate embodiment of the present invention, the handheld device 200 comes with an insulating jacket to support optimal performance of the dispenser mechanism.

[0079] It will be apparent to those skilled in the art will that while the present invention has been described to be used for liquid lipsticks, the handheld device 200 and the method can be used for various other products such as eyeshadows, foundations, skin care creams etc. and even for non-cosmetic products such as artists colours etc. with a few simple modifications.

[0080] While various embodiments of the present invention have been described above, it should be understood that they have been presented by way of example only, and not as a limitation. Numerous changes to the disclosed embodiments can be made in accordance with the disclosure herein without departing from the spirit or scope of the invention. Thus, the breadth and scope of the present invention should not be limited by any of the above described embodiments.

[0081] Although the invention has been illustrated and described with respect to one or more implementations, equivalent alterations and modifications will occur to others skilled in the art upon the reading and understanding of this specification and the annexed drawings. In addition, while a particular feature of the invention may have been disclosed with respect to only one of several implementations, such a feature may be combined with one or more other features of the other implementations as may be desired and advantageous for any given or particular application.

[0082] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. 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. Furthermore, to the extent that the terms “consists”, “consisting”, “including,” “includes,” “having,” “has,” “with,” or variants thereof are used in the detailed description,

such terms are intended to be inclusive in a manner similar to the term “comprising.”

[0083] Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. It will be further understood that terms, such as 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 and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein.

[0084] The Abstract of the Disclosure allows the reader to quickly ascertain the nature of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the present invention.