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DISPENSER CONTAINER AND METHOD OF AL- 5 TERING THE FLAVOR AND COLOR OF A SUBSTANCE PACKAGED THEREIN

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5 Claims. (Cl. 99—148)

This invention relates to product dispensers in general
and more particularly to dispenser containers of the squeeze bag and similar types.

Numerous products have been found to be best received by consumers when packaged directly within a dispenser type container. The use of such dispenser containers provides advantages and savings for both the producer of goods and the ultimate consumer. For example, the producer eliminates separate packaging problems and expenses which may be passed on to the consumer. At the same time, the consumer is not required to handle the product directly, has the product readily accessible for use, and need use no more of the product than is required at any one time.
Squeeze bottle or bag type container dispensers are particularly popular and well suited for heavy syrup-like substances such as mustard and catsup, in the food product lines, and for glue and paste to mention other examples. Small quantities of paint, tooth paste, and shaving cream have long been packaged and dispensed from pliable dispenser container tubes. Squeeze type dispenser containers are particularly adaptable for semi-fluids which are messy to handle and which are used only in small quantities.
This invention is directed towards products of the type mentioned and most particularly to those which would have to be produced in a considerable number of different varieties to suit consumer demands.
An example of such a product is cake decorating frosting.
Housewives seldom decorate their own cakes because of the trouble involved in making the decorating frosting in the small quantities and different colors one would like to have. Further, there is considerable mess and waste in using commonly known cake decorating devices.
On the other hand, producers of food products are reluctant to provide a packaged product for cake decorating purposes, in a self dispensing container or otherwise, because of the variety of different colors, or even flavors, that might be required. Many problems of supply and demand come to mind in this respect.
It is an object of this invention to disclose a coloring, flavoring, or like process usable with products packaged in pliable dispenser containers and which may be practiced by the user of the goods rather than the producer of the packaged goods. Accordingly, the producer has only one standardized product to produce and the consumer has innumerable variations available.

It is an object of this invention to disclose means for practicing the process or method hereinafter set forth.

It is also an object of this invention to disclose means of adapting presently known dispenser containers to enable the practice of this invention therewith.

Another object of this invention is to disclose different forms of dispenser containers particularly suited to the practice of this invention and suggestive of other forms that might be used.

Still another object of this invention is to suggest the many different fields in which the teachings of this invention might be put to use.
These and other objects and advantages obtained and attainable in the practice of this invention will be more apparent upon a reading of the following specification in conjunction with the accompanying drawing.

In the drawing:
Figure 1 is a perspective view of a squeeze bag disinvention.

Figue 2 is an enlarged cross-sectional view of the dispenser part of a dispenser container disclosing one means for practicing the teachings of this invention.
Figure 3 is an enlarged cross-sectional view of the dispenser part of a dispenser container disclosing another means for practicing the teachings of this invention.

Figure 4 is an enlarged cross-sectional view of the dispenser part of a dispenser container disclosing still another means for practicing the teachings of this invention.

Figure 5 is a cross-sectional and a perspective view of decorator caps made use of in the disclosed process as employed with decorator cake frosting.

Referring to the drawings in further detail:
The dispenser container 10 of Figure 1 is of the squeeze bag type. It includes a product containing body portion 12 having a dispensing head or neck portion 14 closing its upper end. The body portion 12 is made of a plastic material which is of a reasonably pliable character. It is sealed at its lower end, as at 16, and in this particular instance includes a further package part 18.
The dispensing head 14 may be formed from and as a part of the body portion 12. However, in this instance, and for illustration purposes, it is shown as a separate part having the body portion 12 sealed thereto as at 20 . A passage 22 is formed through the neck 24 of the dispensing head and the neck is externally threaded as at 26 to receive a closure cap 26 in engagement therewith.
This invention requires certain modification of the closure cap 26 and of the dispensing passage 22, as well as the use of coloring, flavoring or other pellets 28 . The modification of the passage 22 is principally to enable receipt of a pellet 28 therein, and the modifications of the closure member 26 are to enable its activation of a pellet disposed in the passage.
The pellets 28 may be of any of a number of different varieties of liquid-filled and gelatin-coated pill types, or even of a soluble powder with some form of coating for ease of handling. They are intended to be made available to customers that purchase the squeeze bag containers 10 , either in separate packages or packaged in the end tab package part 18 formed on the container itself. Three such pellets 28 are shown in the end package flap 18 of container 10 in Figure 1. They are preferably of different colors, or flavors, to provide some variety.
The decorator frosting 30 packaged in the body portion 12 of container 10 is non-flavored and/or non-colored depending upon the kind of pellets 28 which are to be used.
In the embodiment shown by Figure 2, the passage 22 is enlarged as at 32 to form a pocket in which a pellet 28 may be disposed. The closure cap 26 includes a projection 34 formed on the underside thereof and of the size of the enlarged part 32 of the passage 22 . Accordingly, when the closure cap 26 is threaded back on the dispenser neck 24, the projection 34 squashes the pellet 28 . This either breaks it open and allows the soluble substance thereof to flow into the frosting substance $\mathbf{3 0}$, or causes pieces of a soluble powder-type pellet bead to enter the frosting area. Thereafter, the pliable body or bag part 12 is kneaded to mix in the color or flavor to the desired
consistency.

In Figure 3, an enlarged dispenser passage 22' is provided and the closure cap $26^{\prime}$ includes an elongated projecting part 34 ' on the underside thereof. The passage $\mathbf{2 2}^{\prime}$ is of a size to receive a pellet 28 directly therethrough, and the end of the extended part $32^{\prime}$ of the closure cap includes finger means 36 or the like for holding a pellet thereto during its insertion into the frosting substance 30.

In Figure 4, the same general arrangement of Figure 2 is shown, except that the cap $\mathbf{2 6}^{\prime \prime}$ includes a prong 38 on the underside thereof with a barbed end 40 . Such an arrangement causes the pellet 28 to be pierced and also provides a means of subsequently extracting the pellet residue (as the gelatin coating) from the dispenser passage 22.

Decorator tips 42 and 44 are shown by Figure 5. The one decorator tip 42 includes a through passage 46 of no particular configuration while the other, 44, has a passage 48 with some form of design. Both are formed and internally threaded, as at 50, for engagement with the threaded neck 24 of the container 10. Accordingly, they are usable with the container 10 to dispense the decorator frosting $\mathbf{3 0}$ after it has been colored, or flavored, and the closure cap 26 has been removed.

## Method of use

The customer purchases one or more of the dispenser containers 10 with its unflavored and uncolored cake decorating frosting (for example) therein. A supply of color and/or flavor pellets 28 is also purchased. The pellets 28 may be sold separately or with the dispenser container in the packaging flap 18 thereof.

The purchaser next decides what color, or flavor, or both, she would like to have the cake decorating frosting 30. She selects the proper pellet 28 for the desired change, removes the closure cap 26, and inserts the pellet within the dispenser passage 22. The closure cap 26 is threaded back on the dispenser container, causing it to break the pellet and force the coloring or flavoring contents of the pellet into the bag portion 12 with the substance to be colored or flavored. The pliable bag 12 is then kneaded to mix the coloring or flavoring material in with the decorator frosting to the desired consistency.

A hard coated wholly soluble coloring or flavoring pellet will be broken up and completely dissolved in the decorator frosting 30 with sufficient kneading. A gelatincoated pellet may leave a gelatin residue, if it is not itself readily soluble. However, the latter presents no problem in the type dispenser containers shown by Figures 2 and 4. In these instances the coating residue would remain in the dispenser passage 22 from where it can be readily removed. This is done either by the barbed prong 38 of the closure cap $\mathbf{2 6}^{\prime \prime}$, or by squeezing the pliable bag 12 to dispel some of the frosting substance 30 and the gelatin residue with it.
In the type dispenser container of Figure 3, the pellet residue, if such a form of pellet is used in this arrangement, is simply worked down to the lower part of the container bag before it is broken and the residue, if any, is kept in the lower part of the bag.

As many pellets 28 may be used as is considered necessary to obtain any particular result and the pellets may be used in different ways to obtain unusual and clever results. For example, a candy cane stripe can be obtained by working the coloring irregularly through the decorator frosting 30, deeper colors can be obtained with two or three pellets instead of just one, combination colors are obtainable, etc.

With the desired alteration of the decorator frosting 30 completed, the closure cap 26 is removed and set aside. Thereafter the selected decorator tip 42, 44 or other is threaded onto the neck 24 of the dispenser container 10, and it is ready for use.
It will be appreciated that innumerable products other than cake decorating frosting may be altered and used in
the manner described. One such example is cream cheese for party sandwich use or the like.

In some instances the consistency of the product, or the fact of its refrigeration, may require that it be thawed out in warm water. This is readily done without affecting the end result and in some instances it may help to dissolve the pellet 28 more quickly.

While a preferred embodiment of this invention and certain modifications have been described, in setting forth the method proposed, it will be understood that other modifications and improvements may be made thereto. Such of these modifications and improvements as incorporate the principles of this invention are to be considered as included in the hereinafter appended claims, unless these claims by their language expressly state otherwise.
I claim:

1. The method of altering the color, flavor and the like, of a substance packaged within a pliable container dispenser, comprising; removing the closure cap from the dispensing outlet of said container dispenser, disposing a pellet including a soluble substance to produce the desired change within said dispensing outlet, returning said closure cap over said dispensing outlet, breaking said pellet with said closure cap to dispense said soluble substance within said packaged substance, squashing said pellet with said cap for complete dispensing thereof, kneading said pliable container to mix said soluble substance with said packaged substance, removing the residue of said pellet with said closure cap, and replacing said closure cap with a dispensing head.
2. A dispenser container, comprising; a pliable product container having a dispensing end and a passage formed through such dispensing end, a closure cap for closing said passage, said passage being formed to provide a pocket for receiving a product altering pellet therein, said closure cap including a pocket receptive projection having a barbed prong extended therebelow, said barbed prong being disposed to pierce said pellet and said projection being disposed to squash said pellet for thoroughly dispensing the altering substance thereof within said product container, and said pliable container being kneadable to mix said substance with the product contained therein.
3. A dispenser container, comprising; a pliable product container having a dispensing end and a passage formed through such dispensing end, a closure cap for closing said passage, said passage being formed to provide a pocket for receiving a product altering pellet therein, said closure cap including barbed means for piercing said pellet as disposed within said pocket and allowing the altering substance thereof to pass into said product container, said barbed means further serving to remove any residue of said pellet upon subsequent removal of said closure cap, and said pliable container being kneadable to mix said substance with the product contained therein.
4. A dispenser container, comprising; a pliable product container having a kneadable product packaged therein, said container including a dispensing end having a passage formed therethrough, a closure cap in removable engagement with said dispensing end and disposed to close said passage, a receptive pocket for an altering substance formed within said passage, a pocket receptive projection formed on the underside of said closure cap and receivable within said pocket subsequently of the engagement of said cap with the dispensing end of said container, a barbed prong provided on said projection and disposed to pierce an altering substance received within said pocket prior to engagement thereof by said projection, said projection being formed to fill said pocket at least in part for motivating said altering substance to enter said product container, said barbed prong being adapted to remove any residue of said altering substance from said pocket upon the subsequent removal of said closure cap, and said pliable container being
kneadable to mix said kneadable product with said altering substance received therein.
5. A dispensing container, comprising in combination; a transparent and pliable plastic bag container having a kneadable product packaged therein, said bag container including a dispensing end having a passage formed therethrough, a closure cap in removable engagement with said dispensing end and disposed to close said passage, a package tab formed integrally with said bag container and having a product altering substance retained therein separate and apart from said kneadable product, a receptive pocket for said altering substance formed within said passage, a projection formed on the underside of said closure cap and receptive within said dispensing passage pocket for squashing said altering substance as removed from said tab and disposed therein, a prong provided on said projection and extended there-
beyond for piercing said altering substance prior to the squashing thereof by said projection, saild prong including a barbed end for withdrawing the residue of said altering substance upon subsequent removal of said closure cap, said pliable container being kneadable to mix said altering substance with said kneadable product, and a dispensing head receptive over said dispensing end of said container upon removal of said closure cap for controlled dispensing of said product as altered by said altering 10 substance.

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