

June 6, 1967

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3,323,640

FLEXIBLE PACKAGE WITH INTERCONNECTED COMPARTMENTS

Filed June 14, 1966

FIG. 1.

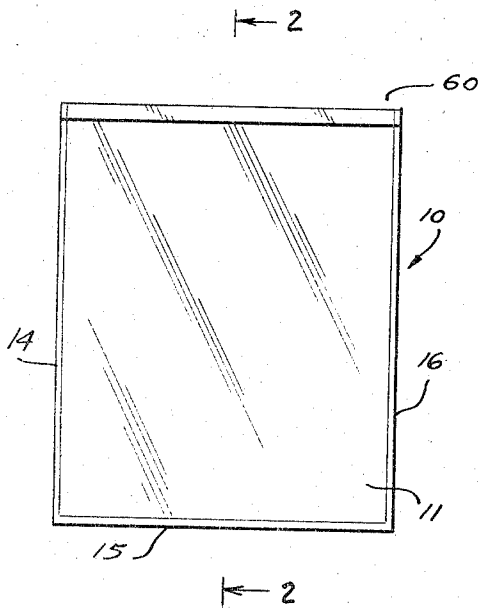


FIG. 2.

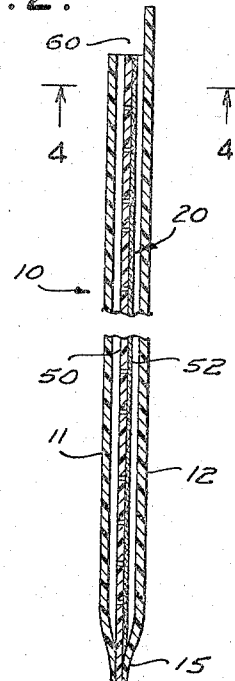


FIG. 3.

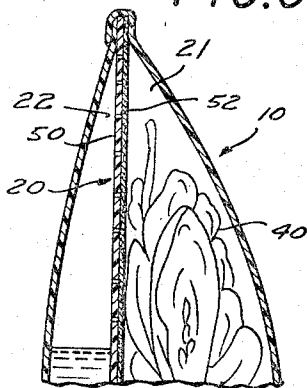


FIG. 4.

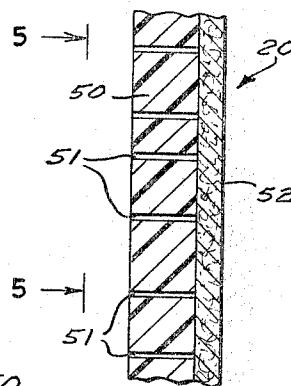
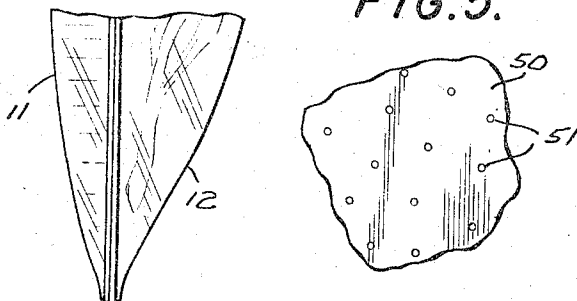


FIG. 5.



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1

3,323,640

FLEXIBLE PACKAGE WITH INTERCONNECTED COMPARTMENTS

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Filed June 14, 1966, Ser. No. 478,262
2 Claims. (Cl. 206—47)

This invention relates to flexible packages; and more particularly to flexible packages with a plurality of compartments; and especially to such packages wherein the compartments are interconnected.

Flexible packages with a plurality of individual compartments therein are known. Such packages, however, usually contain compartments which are completely separate and distinct.

This invention provides a flexible package with at least two compartments, said two compartments being separated by a wall which will allow the passage of a predetermined quantity of a substance such as a liquid, gas, or the like.

It is a cardinal object of this invention to provide a new and improved flexible package with a plurality of compartments therein, and at least some of the said compartments being interconnected by a perforate or porous wall or the like whereby a predetermined quantity of a fluid or gaseous substance or the like may pass there-through.

Another primary object of this invention is the provision of a package as above-described that may be economically and conveniently mass-produced.

A still further purpose of the instant invention is the provision of a flexible package for the convenient storage and shipment of products such as flowers, and the like, which must be conveniently fed with a supply of water or the like, in order to remain fresh.

The invention consists of the provision of a flexible package or the like with at least two compartments separated by a wall. The said wall may be comprised of a single layer or multiple layered laminated material. The essential feature of the said center wall is its ability to pass therethrough a predetermined quantity of a substance such as a fluid, gas, or the like. Thus, if a substance such as a corsage is retained in one of the compartments of the package, and a fluid which is designed to keep the flower fresh, is packaged in the other compartment, a predetermined quantity of the fluid will pass through the center wall at a given rate to keep the product fresh.

The above objects and others are accomplished by the provision of a specific embodiment shown in the attached drawings and described in the specification hereinafter. In the drawings:

FIG. 1 is a front elevational view of one simplified form of the invention.

FIG. 2 is a sectional view taken substantially along line 2—2 of FIG. 1.

FIG. 3 is a view corresponding to FIG. 2 but showing the package in its sealed and assembled form, with a product packaged therein, and only partly in section.

FIG. 4 is a sectional view of the center wall of the product on a greatly enlarged scale, taken substantially along line 4—4 of FIG. 2.

FIG. 5 is a view of the center wall in elevation on an enlarged scale taken along line 5—5 of FIG. 4.

Referring particularly to the drawings, there is shown a bag 10 constructed according to this invention. The bag 10 will have outer walls 11 and 12 sealed together at their edge portions 14, 15 and 16. In one embodiment of the invention, the outer walls 11 and 12 are comprised of polyethylene material preferably used because of its

2

heat-sealing characteristics. The material of the outer walls 11 and 12 is selected according to the characteristics of the product to be packaged therein.

The distinguishing feature of this invention, however, is the center wall 20 positioned between the outer walls 11 and 12. As will be apparent, the center wall 20 is similarly joined to the outer walls 11 and 12 at the side edges 14, 15 and 16 thereby forming compartments 20 and 21. The compartments 20 are formed between outer wall 11 and center wall 20 and the compartment 21 is formed between center wall 20 and the outer wall 12. The characteristics of the center wall 20 are essential to the workings of this invention.

It should carefully be noted that the specific construction of the center wall 20 may vary greatly according to the desired effect to be accomplished. What is essential, however, is that the said center wall 20 be partially or completely pervious to a desired substance. For example, in one embodiment of the invention, a flower or orchard or corsage 40 is packaged within the compartment 21. It is well known that for such a flower 40 to remain fresh in appearance for a long period of time, it must receive a continual quantity and supply of either pure or specially treated water 41. Thus, the compartment 21 will be at least partially filled with the fluid substance 41. The center wall 20 will be adapted to pass a predetermined quantity of the said fluid 41 therethrough into the flower compartment 21 at a predetermined rate. Thus, the center wall 20 may consist of a layer of material as of polyethylene 50 but with a plurality of apertures 51 extending therethrough. The side of the wall 50 in contact with the flower compartment may, if desired, be lined with a blotter-like substance 52. The size of the openings or apertures 51 will be adjusted to insure that the blotter-like substance 52 laminated to the center wall 50 will always be kept at a desired degree of moisture contents. The said moisture contents of the blotter-like substance 52 will insure that the flower 40 is kept fresh for the longest possible period of time so long as it is sealed within the bag 10.

Emphasis should be placed upon the fact that the construction of the center wall 20 set forth hereinabove is merely for exemplary purposes and the said center wall 20 may assume any configuration in accordance with the desired results to be accomplished. For example, said center wall 20 may have apertures all over, or may be perforate all over, whereby any portion thereof may transmit a desired fluid or gaseous material. Optionally, however, the center wall 20 may be constructed whereby only a portion thereof will pass the desired fluid or gaseous material. Therefore, the said center wall may be constructed as a single sheet but with a patch or section of perforate material to pass the desired substance.

Additionally, the perforations 51 illustrated may be replaced with a porous-like center wall, such as filter paper or the like, whereby the body of the center wall itself will transmit fluid or gaseous material without the necessity of apertures 51.

Still further, the said center wall 20 may be selected with certain characteristics in mind. For example, the said center wall may be constructed whereby it will pass fluid in only one direction in order to insure that the material in compartment 21 does not reverse direction and flow back into the feeder compartment 22 even partially.

Yet another contemplated embodiment of this invention is that the bag will contain a plurality of center walls thereby forming more than two compartments. In such an embodiment, at least two of the compartments may be utilized to feed a third center compartment. Many advantages will flow from such a construction. For example,

3

where direction of flow is important, the desired quantity flow of fluid or gaseous substance may be obtained no matter which way the bag is placed, in that there will always be one feeder compartment above the middle compartment and one feeder compartment always below the middle compartment at all times.

No matter what the embodiment of the invention is, however, it is apparent that when the compartments are filled with a desired product to be packaged, as well as the gaseous or fluid substances necessary to treat the same, the top or open end 60 of the container will be sealed off by many well known heat-sealing and/or severing techniques, thereby rendering the interior of the flexible package liquid and air tight.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is:

1. A package for a corsage or a like product comprising the combination of a confronting pair of front and rear plastic panels, a line of heat sealing about the peripheral edges of said panels forming an internal hermetically sealed enclosure, a central plastic panel of a prescribed construction engaged by said peripheral line of heat sealing subdividing said hermetically sealed enclosure into two compartments, and said corsage or a like product and a fluid respectively disposed in each said

4

compartment such that said corsage or a like product, in its compartment, absorbs moisture within said compartment to remain fresh and said fluid, in its compartment, evaporates as moisture to replenish the available supply of moisture for said corsage or a like product, said prescribed construction of said central plastic panel including a plurality of comparatively small openings of an extent to minimize the flow of said fluid between said compartments except in the form of evaporated moisture.

2. A package for a corsage or a like product as defined in claim 1 including an absorbent material arranged on the side of said central panel bounding the compartment of said corsage or a like product to thereby facilitate the movement of moisture into said compartment.

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