SNAP AND LIFT PACKAGE FOR CONTACT LENS

Related Applications

This application is a non-provisional filing of U.S. Serial No. 60/666,877, filed on March 31, 2005, a provisional patent application.

Field of the Invention

The present invention relates to a contact lens package and, more particularly, to a contact lens package adapted for improved accessibility.

Background of the Invention

Typically, contact lenses have been packaged in blister packs. Each blister pack is equipped with a single lens and has a concave-shaped receptacle for receiving the lens and a cover removably attached to the receptacle for enclosing the lens in the receptacle. While conventional blister packs provide a convenient means for shipping and storing contact lenses, they are not designed to consistently provide easy access to the contact lenses. Accordingly, there is a need for a contact lens package that consistently provides easy accessibility to the contact lens enclosed therein.

Summary of the Invention

The present invention overcomes the disadvantages and shortcomings of the prior art discussed above by providing a new and improved contact lens package which includes a first housing member and a second housing member pivotably connected to each other. In a first position, the first

housing member is substantially co-planar with the second housing member, while in a second position, the first housing member is not co-planar with the second housing member. The package also includes a holding mechanism, such as a pocket, for holding a contact lens, and a receiving mechanism, such as a receptacle, for receiving contact lens solution. The holding mechanism moves conjointly with the second housing member such that when the second housing member is in its first position, the holding mechanism is positioned within the receiving mechanism, and such that when the second housing member is in its second position, the holding mechanism is removed from the receiving mechanism.

Another aspect involves the positioning of the holding mechanism when the second housing member is in its second position. More particularly, the holding mechanism is movable from a closed position, in which the contact lens held in the holding mechanism is inaccessible to a user, toward an open position, in which the holding mechanism is positioned above the receiving mechanism and the contact lens held in the holding mechanism is accessible to the user. The contact lens solution in the holding mechanism drains through a hole in the holding mechanism and into the receiving mechanism when the holding mechanism is in its open position.

Brief Description of the Drawings

For a more complete understanding of the present invention, reference is made to the following detailed description of an exemplary embodiment considered in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of a contact lens package constructed in accordance with an exemplary embodiment of the present invention, showing the contact lens package in a closed position;

FIGS. 2 to 4 are sequential perspective views of the contact lens package of FIG. 1, showing the progressive movement of the contact lens package as it moves to a fully open position;

FIG. 5 is a side elevational view of the closed contact lens package shown in FIG. 1;

FIG. 6 is a cross-sectional view, taken along section lines 6-6 and looking in the direction of the arrows, of the fully opened contact lens package shown in FIG. 4;

FIG. 7 is a cross-sectional view, taken along section lines 7-7 and looking in the direction of the arrows, of the closed contact lens package shown in FIG. 1; and

FIG. 8 is an exploded perspective view of the contact lens package shown in FIG. 1.

Detailed Description of the Invention

FIGS. 1-8 show a contact lens package **10** including a pair of housing members **12, 14** which are connected to one another. With particular reference to FIG. 1, the housing members **12, 14** are positioned adjacent to one another in a closed position, in which the housing members **12, 14** are in a substantially co-planar orientation. The contact lens package **10** is delivered to a user in this closed position, as shown in FIG. 1. A hinge **16** is located between the housing members **12, 14** so as to allow the housing member **14** to

pivot relative to the housing member **12** for purposes to be described hereinafter.

Referring again to FIGS. 1-8, the housing member **12** has a gripping rim **18** and a plurality of circularly-shaped nibs **20** which protrude outwardly from the gripping rim 18. In similar fashion, the housing member 14 has a gripping rim **22** and a plurality of circularly-shaped nibs **24** (see FIGS. 1, 2 and 5-8) which protrude outwardly from the gripping rim **22.** The nibs **20, 24** are designed to allow a user to firmly grip the contact lens package **10** for purposes to be described hereinafter.

With reference to FIGS. 2-4 and 8, the housing member **12** has a substantially U-shaped recess **26** and a base **28** formed therein. In similar fashion, the housing member **14** has a substantially U-shaped recess **30** (see FIG. 8) and a base **32** (see FIG. 8) formed therein. The base **28** of the housing member **12** is integrally formed with the base **32** of the housing member **14.**

Referring to FIGS. 2-8, the housing member **12** also has a concave-shaped receptacle **34** formed within the recess **26** (see FIGS. 2-4 and 8). The receptacle **34** is sized and shaped so as to receive a quantity of a conventional contact lens solution **36**, such as saline solution, for maintaining a contact lens **38** (see FIGS. 4 and 6-8) in a hydrated state.

With reference to FIGS. 1-4 and 6-8, a substantially, rigid board **40** is positioned within the recesses **26, 30** (both of which are shown in FIG. 8) formed in the housing members **12, 14**, respectively. The board **40** includes a first section **42** and a second section **44** formed integrally with one another. The first section **42** is removably positioned within the recess **26** (see FIGS. 2-4

and 8) formed in the housing member **12**, while the second section **44** is inlaid in the recess **30** (see FIG. 8) formed in the housing member **14** such that the second section **44** is fixedly attached to the base **32** (see FIG. 8).

Referring to FIGS. 1-8, the contact lens package **10** includes a cover layer **46** which covers the housing members **12, 14** and the board **40**. The cover layer 46 forms a liquid-tight seal between the housing members 12, 14 and the board 40 so as to prevent leakage of the contact lens solution 36 (see FIGS. 2-8) from the receptacle 34. The cover layer **46** is adapted to break in response to the application of a predetermined force from, for example, the board **40**. The cover layer **46** can be made from any suitable materials such as polymers or laminates of polymers and metal foils. The cover layer **46** can include indicia (not shown) printed thereon, such as a product name.

With reference to FIGS. 3, 4 and 6-8, the contact lens package **10** includes a pocket **48** having an end **50** attached to the first section **42** of the board **40**. The pocket **48** has a main section **52** which includes a concave-shaped cavity **54** sized and shaped so as to be accommodated within the receptacle **34** and so as to hold the contact lens **38** (see FIGS. 4 and 6-8). The main section **52** of the pocket **48** has an edge **56** surrounding the cavity **54**. The edge **56** is attached to the end **50** of the pocket **48** along a hinge **58**. For purposes to be described hereinafter, the hinge **58** is adapted to allow the main section **52** of the pocket **48** to pivot relative to the end **50**. The cavity **54** has a small opening **60**, the function of which is discussed below. The board **40** serves to connect the pocket **48** to the second housing member **14**.

With reference to FIGS. 1-4, the contact lens package **10** is opened as follows. A user holds the gripping rim **18**, preferably gripping the

nibs **20**, of the housing member **12** with his or her thumb and forefinger of one hand, while holding the gripping rim **22**, preferably gripping the nibs **24** (see FIGS. 1 and 2), of the housing member **14** with his or her thumb and forefinger of the other hand. The housing member **14** is then pivoted about the hinge **16** such that the housing member **14** and the board **40** move relative to the housing member **12**, thereby rupturing the cover layer **46** between the housing member **12** and the board **40**. When the contact lens package **10** is in its semi-open position as shown in FIG. 3, the housing member **14** and the board **40** are positioned at an angle of about 90 degrees (i.e., substantially perpendicular) relative to the housing member **12**. In the semi-open position shown in FIG. 3, the pocket **48** is positioned adjacent to the first section **42** of the board **40** such that the contact lens **38** is still inaccessible to the user. In order to gain access to the contact lens **38**, the user pivots the main section **52** of the pocket **48** about the hinge **58** until the main section **52** forms an angle of about **90** degrees with the end **50** of the pocket **48** and, hence, with the first section **42** of the board **40** (see FIG. 4). When the main section **52** is so positioned, the cavity **54** is positioned above the receptacle **34**, whereby the contact lens solution **36** in the cavity **54** drains through the small opening **60** and into the receptacle **34**. After the contact lens solution **36** is drained from the cavity **54**, the contact lens **38** can be removed by the user from the contact lens package **10**.

It should be appreciated that the present invention provides a number of advantages and benefits. For instance, the present invention provides a contact lens package **10** adapted for improved accessibility.

It will be understood that the embodiment described herein is merely exemplary and that a person skilled in the art may make many variations and modifications without departing from the spirit and scope of the invention. All such variations and modifications are intended to be included within the scope of the invention as defined in the appended claims.

WE CLAIM:

1. A package for a contact lens, comprising a first housing member including receiving means for receiving contact lens solution; a second housing member connected to said first housing member such that said second housing member is pivotable relative to said first housing member from a first position, in which said second housing member is substantially co-planar with said first housing member, to a second position, in which said second housing member is not co-planar with said first housing member; and holding means for holding a contact lens, said holding means being movable conjointly with said second housing member such that said holding means is positioned within said receiving means when said second housing member is in its said first position and such that said holding means is removed from said receiving means when said second housing member is in its said second position,

wherein said receiving means comprises a receptacle formed in said first housing member,

wherein said holding means comprises a pocket having a cavity sized and shaped so as to hold a contact lens,

further comprising connecting means for connecting said pocket to said second housing member,

wherein said connecting means includes a board having one end releaseably attached to said first housing member and an opposite end fixedly attached to said second housing member.

2. The package of Claim 1, further comprising a cover layer affixed to said first housing member, said second housing member, and said board such that said cover layer forms a liquid-tight seal which prevents leakage of contact lens solution from said receptacle.

3. The package of Claim 2, further comprising rupturing means for rupturing said cover layer as said second housing member moves from its said first position toward its said second position.

4. The package of Claim 3, wherein said rupturing means includes said one end of said board, whereby said one end of said board ruptures said cover layer when forced against said cover layer.

5. The package of Claim 4, wherein said cavity is movable from a closed position, in which said cavity is proximal to said board and in which a contact lens held in said cavity is inaccessible to a user, to an open position, in which said cavity is positioned remote from said board and in which a contact lens held in said cavity is accessible to a user.

6. The package of Claim 5, wherein said board moves conjointly with said second housing member as said second housing member moves from its said first position toward its said second position.

7. The package of Claim 6, wherein said first housing member includes a first recess and said second housing member includes a second recess, and wherein said one end of said board is releaseably positioned within said first recess and said opposite end of said board is fixedly received in said second recess.

8. The package of Claim 7, wherein said first housing member includes first gripping means for improving the grippability of said first housing member and said second housing member includes second gripping means for improving the grippability of said second housing member.

9. The package of Claim 8, wherein said first housing member includes a first free end and said second housing member includes a second free end, and wherein said first gripping means includes a plurality of nibs formed in said first free end, and said second gripping means includes a plurality of nibs formed in said second free end.

10. The package of Claim 9, wherein said cavity is positioned above said receptacle when said cavity is in its said open position; and wherein said cavity includes an opening sized and shaped so as to allow contact lens solution in said cavity to pass through said cavity and into said receptacle when said cavity is in its said open position.

11. The package of Claim 10, further comprising a first hinge connected to said first housing member and to said second housing member, said first hinge adapted to allow said second housing member to pivot relative to said first housing member.

12. The package of Claim 11, further comprising a second hinge connected to said pocket and to said board, said second hinge adapted to allow said pocket to pivot relative to said board.

13. The package of Claim 12, wherein said pocket moves conjointly with said board as said second housing member moves from its said first position toward its said second position, whereby said cavity of said pocket is movable from its said closed position toward its said open position when said second housing member is in its said second position.

14. The package of Claim 13, wherein said cover layer includes a laminate made from aluminum foil.