

INTERCONNECTING CONTACT LENS PACKAGE

Related Applications

This application is a non-provisional filing of U.S. Serial No. 60/666,796,
5 filed on March 31, 2005, a provisional patent application.

Field of the Invention

The present invention relates to contact lens packages and, more particularly, to such packages that are stored and displayed in groups.

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Background of the Invention

Contact lenses have become increasingly popular and due to reductions in manufacturing costs, disposable contact lenses are now an attractive, economical choice for the consuming public. Such lenses may be
15 frequently replaced by consumers (e.g., on a daily or weekly basis) and do not need to be cleaned or sterilized as often as traditional contact lenses. Of course, the consumer must keep a supply of lenses on hand that is commensurate with the frequency with which the lenses are replaced. Consumer demand for disposable contact lenses has led to a need for disposable packaging that is easy
20 to use and inexpensive. The packages should be constructed to provide safe storage and shipping for the lenses, yet provide ready access to the lenses when they are needed by the consumer. It is also desirable that the individual packages be as small as possible, so that they may be easily stored and carried.

Soft contact lenses are typically packaged and stored in a storage
25 solution. One widely-used contact lens package is the "blister pack," which has a

rigid plastic container with a flat upper surface and a concave-shaped well that contains a single contact lens with a quantity of storage solution. The lens is retained in the well by a cover sealed along the perimeter of the upper surface of the well. The blister packs are boxed for shipping and storage. When a lens is
5 needed, the consumer peels back the flexible cover from the blister pack to expose the contact lens, pours the lens out into his or her hand, and places the lens on the tip of the finger for application to the eye. It remains an objective to improve contact lens packages to make them easier to use, store and display.

10 Summary of the Invention

The disadvantages and shortcomings of the prior art contact lens packages are overcome in accordance with the present invention by providing a new and improved contact lens package which can be conjoined with at least one other contact lens package to form a "ganged" grouping of packages. More
15 particularly, the contact lens package of the present invention includes a base having a lens receptacle therein and a lid for covering and sealing the lens receptacle. The configuration of the base and the lid define a base ledge having lugs that upwardly extend from a top surface of the ledge and a lid overhang having lug receptacles formed in a surface thereof, each of the lug receptacles
20 being adapted to receive a lug of another similar or dissimilar contact lens package. The configuration of the contact lens package allows it to be interconnected with at least two other contact lens packages, thereby allowing a "ganged" grouping of interconnecting packages for storage and retail display.

Specifically, the contact lens package has been adapted for use in
25 housing a single contact lens and an amount of contact lens solution. However,

the contact lens package can be utilized to house a plurality of contact lenses and contact lens solution therefor. Further features and advantages of the invention will appear more clearly on a reading of the detailed description of an exemplary embodiment of the invention, which is given below by way of example only with
5 reference to the accompanying drawings.

Brief Description of the Figures

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

Figure 1 is a perspective view of a pair of conjoined contact lens packages in accordance with an exemplary embodiment of the present invention;

Figures 2 and 3 are exploded views of the contact lens packages of Figure 1; and

15 Figure 4 is a perspective view of one of the contact lens packages shown in Figures 1-3 with a lid employed by the package in an open position.

Detailed Description of the Invention

Figure 1 shows an array or "ganged" grouping 10 of contact lens packages
20 **12a, 12b**. Each of the contact lens packages **12a, 12b** has a square-shaped base **14** and a square-shaped lid **16**. The base **14** and the lid **16** are laterally off-set with each other and define a rectangular-shaped base ledge **18** and a rectangular-shaped lid overhang **20**. A pair of conical-shaped lugs **22** extends upwardly from the base ledge **18** of each of the contact lens packages **12a, 12b**. Each of the

packages **12a, 12b** has indentations **23** for receiving the fingers of a user to aid in opening the lid **16** from a closed position relative to the base **14**.

As shown in Figures 2 and 3, the lid overhang **20** of each of the contact lens packages **12a, 12b** has a pair of conical-shaped lug receptacles **24** each of which receives a corresponding one of the lugs **22** extending from the base ledge **18** of another of the contact lens packages **12a, 12b**. In this manner, for instance, the packages **12a, 12b** can be conjoined side-by-side with the lid overhang **20** of the package **12a** extending over the base ledge **18** of the adjacent contact lens package **12b**, while the package **12b** and a package **12c** can be conjoined side-by-side with the lid overhang **20** of the package **12b** extending over the base ledge **18** of the adjacent contact lens package **12c**, and so on (see Figure 3). It should be appreciated that the conjoined adjacent contact lens packages **12a, 12b, 12c** “nest” in that the void defined by the base ledge **18** relative to the upper surface of the lid **16** accepts the lid overhang **20** such that the overall thickness or height of the conjoined packages **12a, 12b, 12c** does not exceed that of a single package (see Figure 3). If the lugs **22** and the lug receptacles **24** are positioned as shown, the depth (measured from front to back) of the conjoined packages **12a, 12b, 12c** also does not exceed that of a single package.

The adjacent contact lens packages **12a, 12b** are retained in conjunction by virtue of a snap or friction fit established between the lugs **22** and the lug receptacles **24**. The lugs **22** may be singular or plural and, preferably, there is one-to-one correspondence of the receptacles **24** to the lugs **22**. Preferably, the relative dimensions of the lugs **22** and receptacles **24** are such that the force to connect and disconnect the contact lens packages **12a, 12b** is readily

accomplished by the unaided hand of a consumer. As can be appreciated by reviewing Figure 3, a hand or finger placed upon the contact lens package **12b** would facilitate the removal of the contact lens package **12a** therefrom, and a hand or finger placed upon the contact lens package **12c** would facilitate removal
5 of the contact lens package **12b** therefrom, and so on.

Figure 4 shows the contact lens package **12a** with the lid **16** in an open position. Preferably, the lid **16** and the base **14** are conjoined by a hinge **26**, e.g., an integral plastic or "living" hinge. The base **14** has a circular-shaped lens well **28** therein for containing a contact lens **29** and any storage or wetting solution
10 (e.g., saline solution) that is required. The lens well **28** is sealed by a circular-shaped well seal **30** which peripherally surrounds the well **28** and establishes a water-tight seal between the lid **16** and the base **14** when the lid **16** is in its closed position. The well seal **30** may be formed by a sealant, an elastomer, a deformable ring monolithically formed with the base **14** or the lid **16**, or any other
15 conventional mechanism. Additional water-tight seals **34a**, **34b** may be provided proximate to the periphery of the lid **16**. The additional seals **34a**, **34b** may also be utilized to evidence tampering and thus warn the consumer that any of the packages **12a**, **12b** had been opened previously. It is preferred that the contact lens packages **12a**, **12b** in accordance with the present invention be made from
20 plastic by injection molding, blow molding or other conventional processes for making plastic packaging.

While the base **14** and the lid **16** are each, preferably, square in shape, it should be noted that each can consist of other shapes and sizes. In addition, while the base ledge **18** and the overhang **20** are each, preferably, rectangular in

shape, each can consist of other shapes and sizes. Also, each of the lugs **22** and each of the lug receptacles **24** are, preferably, conical in shape, but each can consist of other shapes and sizes. In addition, each of the lens well **28** and the well seal **30** are, preferably, circular in shape, but each can consist of other
5 shapes and sizes.

As can be appreciated from the foregoing, the present invention permits the physical grouping of the contact lens packages **12a**, **12b** in accordance with a logical plan, for example, to connect all contact lens packages holding contact lenses of a particular prescription strength together in one row (i.e., in seriatim
10 fashion). Alternatively, the present invention may be utilized to connect the packages **12a**, **12b** into groups for aesthetic or consumer presentation purposes, for example, to retain the contact lens packages **12a**, **12b** in orderly rows such that the display is aesthetically pleasing and facilitates the consumer to rapidly select the particular contact lens strength that they require.

15 It should 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 as defined in the appended claims. All such variations and modifications are intended to be included within the scope of the present invention as defined in the
20 appended claims.

We claim:

1. A contact lens package (12a,12b), comprising a body (14) having a lens receptacle therein; and a connector on said package for releasably connecting said contact lens package to another contact lens package, wherein said connector includes a first connector (22) for connecting to a second contact lens package and a second connector (24) for connecting to a third contact lens package, further comprising a lid (16) for at least partially covering said lens receptacle and removably storing a contact lens within said lens receptacle, **characterised in that:** ..

said lid (16) is off-set from said body (14) with said body (14) extending beyond said lid (16) and forming a ledge (18), on said body, said ledge (18) supporting said first connector (22), wherein said lid (16) overhangs said body (14) distal to said ledge (18), said overhang (20) supporting said second connector (24).
2. The contact lens package of Claim 1, wherein said first connector (22) includes at least one lug extending up from a surface of said ledge (28).
3. The contact lens package of Claim 2, wherein said second connector (24) includes at least one receptacle formed in a surface of said overhang (20), each receptacle being configured for matingly receiving a corresponding lug of another identical contact lens package.
4. The contact lens package of Claim 3, wherein said first connector (22) of said first contact lens package inserts into said second connector (24) of said another contact lens package when said first contact lens package and said another contact lens package are placed adjacent to one another.

5. The contact lens package of Claim 4, wherein said overhang (20) of said first contact lens package is complementary to said ledge (18) of said another contact lens package, such that said first contact lens package and said another contact lens package are substantially parallel when they are connected together.
6. The contact lens package of any preceding Claim, wherein said lid (16) is hingedly connected to said body (14).
7. The contact lens package of Claim 6, wherein said lid (16) is connected to said body (14) by a plastic hinge.
8. The contact lens package of any preceding Claim, further comprising a first seal between said body (14) and said lid (16) proximate to an outer periphery of said receptacle for sealing a contact lens in said receptacle.
9. The contact lens package of Claim 8, further comprising a second seal between said body (14) and said lid (16), said second seal disposed proximate an outer periphery of said lid (16).
10. The contact lens package of Claim 9, wherein said second seal is tamper-evident.
11. The contact lens package of any preceding Claim, wherein said first connector (22) and said second connector (24) are each plural in number.