(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 126 257 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
06.10.2021 Bulletin 2021/40

(21) Application number: **15715375.0**

(22) Date of filing: **31.03.2015**

(51) Int Cl.:
B65D 75/52 *(2006.01)* ***B65D 77/04*** *(2006.01)*
B65D 71/12 *(2006.01)* ***B65D 75/32*** *(2006.01)*

(86) International application number:
PCT/GB2015/050996

(87) International publication number:
WO 2015/150790 (08.10.2015 Gazette 2015/40)

(54) **CONTACT LENS PACKAGING AND METHODS OF MANUFACTURING PACKAGED CONTACT LENSES**

KONTAKTLINSENVERPACKUNG UND VERFAHREN ZUM VERPACKEN VON KONTAKTLINSEN

EMBALLAGE DELENTILLES DE CONTACT ET MÉTHODE D'EMBALLAGE DE LENTILLES DE CONTACT

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **31.03.2014 US 201461973067 P**

(43) Date of publication of application:
08.02.2017 Bulletin 2017/06

(73) Proprietor: **CooperVision International Limited**
Fareham PO15 5RL (GB)

(72) Inventors:
- **COON, Mark**
  Fairport, New York 14450 (US)
- **HILL, Mark**
  Fairport, New York 14450 (US)
- **ZICARI, James**
  Fairport, New York 14450 (US)
- **BURGER, Leslie**
  Fairport, New York 14450 (US)
- **POTOKY, Lauren**
  Fairport, New York 14450 (US)
- **DAVIS, Robert**
  Eastleigh
  Hampshire SO53 4LY (GB)
- **MYERS, Kathleen**
  Fairport, New York 14450 (US)

(74) Representative: **Abel & Imray**
Westpoint Building
James Street West
Bath BA1 2DA (GB)

(56) References cited:
EP-A1- 1 270 441
WO-A1-2004/004930
WO-A1-2013/098870
WO-A1-2013/109187
JP-A- 2001 240 119
JP-A- 2007 246 102
US-A- 5 743 402
US-A1- 2006 219 577
US-A1- 2013 255 195

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 3 126 257 B1

Description

FIELD

[0001] The present invention relates to contact lens packaging and methods, and more specifically, to packaging for sealed contact lens packs containing unworn contact lenses and methods of manufacturing packaged contact lenses.

BACKGROUND

[0002] Newly manufactured contact lenses are frequently packaged in contact lens blister packages or blister packs. For example, a newly manufactured contact lens will be placed in a cavity or bowl of a plastic base member of a contact lens blister package, a contact lens packaging solution will be provided in the blister package cavity, and a foil sealing member will be adhered to the blister package to hermetically seal the contact lens in the packaging solution in the cavity. In other words, a contact lens blister package used in the manufacture of contact lenses contains a base member having a cavity, an unworn contact lens provided in a packaging solution within the cavity, and a sealing member sealed to the base member to provide an air tight seal around the perimeter of the cavity. The blister packs are understood to be primary packaging. Multiple blister packs are then placed in cartons. The cartons are considered secondary packaging.

[0003] Because contact lenses are medical devices, it is important that information regarding the contact lenses is provided to help support healthcare and patient safety. This is accomplished by providing human-readable information, such as letters, numbers, and images, on the sealing member used to seal a contact lens blister pack. This human-readable information is typically preprinted on the sealing member prior to placement on the blister pack. Additional variable information, including machine readable information, such as bar codes, is then provided on cartons that contain multiple blister packs, each having an unworn contact lens.

[0004] It can be appreciated that there remains a need to improve contact lens packaging, which, among other things, maintains enough contact lens information to help improve healthcare and patient safety.

[0005] WO2013/109187 discloses a contact lens package assembly including a scalable primary lens package, at least one contact lens sealed within the primary lens package, and a scalable secondary lens package. The primary lens package is sealed within the secondary lens package to increase a shelf life of the at least one contact lens. The secondary lens package may be resealable. The secondary lens package may be configured to retain a plurality of primary lens packages. The contact lens package assembly may further include at least one inert gas sealed within the secondary lens package and outside of the primary lens package.

[0006] WO2004/004930 discloses a process and apparatus for automatically sorting and sequencing a random assemblage of products associated with a particular order for same. In one embodiment, the invention sequences the random products to match a predetermined label application sequence.

[0007] US5743402 discloses a food package for containing a food product. The food package includes a tray having a base with an outer surface and an inner surface and a sidewall extending from the base. The sidewall has outer surface and an inner surface and defines a tray opening. A sleeve is provided which includes (i) a bottom section disposed adjacent the outer surface of the base; (ü) a side section disposed adjacent the outer surface of the sidewall; and (iii) a top section secured to the sidewall and substantially covering the tray opening. In another embodiment, a plastic film is interposed between the tray and the sleeve

[0008] EP1270441 discloses a packaging structure having at least one carrier section for the contents with a bonded protective shrouding, a base and a lid to form a carton. The carrier is hinged to the shrouding, to give a flap action between a stowed rest position between the base and lid and an open access position. The base and lid are component parts of the carton, with its four side walls at right angles to the base. One side wall forms a hinge strip, so that the carrier section has a swing movement at the hinge strip, and the butting side walls are stabilized at least in the rest position. The carrier section holds a blister film, with the contained pills or capsules welded and sealed in place.

[0009] US2013/255195 discloses a method for the secondary packaging of ophthalmic lenses, for example contact lenses, contained in individual primary packages. The method included steps of providing a plurality of single individual primary packages each containing a lens and determining a number of single individual primary packages to be taken from the plurality of single individual primary packages and to be packed into a secondary package. The method further includes the steps of providing a secondary package blank of a size capable of accommodating the determined number of single individual primary packages to be packed into the secondary package and placing each single individual primary package of the determined number of single individual primary packages into the secondary package blank. The method further includes the step of folding and closing the secondary package blank containing the determined number of single individual primary packages to form the secondary package. Further, JP 2007-246102 A discloses a contact lens package according to the preamble of claim 1.

SUMMARY

[0010] The present invention addresses this need and provides a contact lens package according to claim 1 and a method of manufacturing a contact lens package according to claim 11.

[0011] As discussed herein, new contact lens packaging and methods of manufacturing packaged contact lenses are described which enable both machine readable information and human readable information to be provided on a package for a single contact lens. In other words, both machine readable and human readable information can now be provided for individual packaged contact lenses as compared to relying on the combination of cartons containing multiple packaged contact lenses and the individual contact lens packages. This was previously not possible because the sealing members of the individual blister packages were too small to contain both human readable and machine readable information as may be required by regulatory agencies. Thus, it will now be possible to provide individual packaged contact lenses to eye care practitioners (ECPs), contact lens wearers, and the like, while still complying with regulatory agency requirements to provide a unique device identifier (UDI) in both a plain text form and in a form that uses automatic identification and data capture (AIDC) technology. Individual lenses include, among other things, contact lenses that may be part of a trial set or fitting set; for example, the individual lenses may be replacement lenses for a fitting set for an ECP or the individual packaged lenses may be the lenses of the initial fitting set of the ECP. If desired, these individually packaged contact lenses, as described in more detail herein, may be provided in cartons as well to provide contact lens multi-packs.

[0012] In general, as described herein, a contact lens package is provided. The contact lens package so described includes a plastic base member and a sealing member coupled to the base member to seal a contact lens in a cavity formed between the plastic base member and the sealing member. An unworn contact lens is provided in a contact lens packaging solution in the cavity. This sealed device is referred to herein as a sealed contact lens package or sealed contact lens blister pack. The present contact lens package also includes a wrap that has one or more panels. The wrap is dimensioned to accommodate the sealed contact lens package and to also provide a UDI in both human readable form and machine readable form, in addition to other required regulatory information. Thus, the wrap includes human readable information, such as letters, numbers, and images; and the wrap includes machine readable information, such as bar codes and the like. The wrap can be flexible or rigid, and as described herein, does not need to fully enclose or surround the individual sealed contact lens package. The wrap is coupled to the sealed contact lens package so that the wrap and sealed contact lens package do not become separated until a person opens the package to remove the unworn contact lens. According to the invention, the wrap is adhered to the sealed contact lens package, such as by using an adhesive between a surface of the wrap and a surface of the sealing member. Thus, the wrap cannot be inadvertently dislodged or separated from the sealed contact lens package. In some embodiments, it can be understood that a single contact lens package in accordance with the present disclosure comprises, consists essentially of, or consist of a sealed contact lens package containing an unworn contact lens and a wrap having human readable and computer readable information corresponding to the contact lens coupled or affixed to the sealed contact lens package. Therefore, each individual sealed contact lens package has a single wrap that contains a UDI that includes human readable information and machine readable information in addition to other information required by regulatory agencies. The present contact lens packages (i.e., sealed contact lens package and wrap) are dimensioned to fit within individual lens package slots of contact lens fitting sets or trial sets cases used in ECP offices. In addition, the present contact lens packages are also dimensioned to fit within multi-pack cartons, such as a carton dimensioned to contain three sealed contact lens packages.

[0013] In one aspect of the invention, a contact lens package is provided. The contact lens package includes a sealed contact lens package and a wrap coupled to the sealed contact lens package. The sealed contact lens package includes a base member, and a sealing member coupled to the base member to provide a sealed cavity. An unworn contact lens is provided in a contact lens packaging solution within the sealed cavity. The wrap includes at least one panel that includes a printing surface. The printing surface includes a unique device identifier in both a human readable form including numbers or letters, or combinations thereof, and a machine readable form including a barcode.

[0014] In another aspect of the invention, a method of manufacturing a contact lens package is provided. The method includes a step of providing a sealed contact lens package, where the sealed contact lens package includes a base member, a sealing member coupled to the base member to provide a cavity, and an unworn contact lens provided in a contact lens packaging solution within the cavity. The method also includes a step of coupling a wrap to the sealed contact lens package, where the wrap includes at least one panel that includes a printed surface including a unique device identifier in both human readable form comprising numbers, or letters, or combinations thereof, and machine readable form comprising a barcode.

[0015] Other aspects and details of the present invention will be apparent based on the following drawings, detailed description, and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016]

FIG. 1 is a perspective view of a contact lens package having a three-paneled wrap.

FIG. 2 is a side plan view of the contact lens package of FIG. 1.

FIG. 3 is a top plan view of the contact lens package of FIG. 1.

FIG. 4 is a bottom plan view of the contact lens package of FIG. 1 in a shrink sleeve.
FIG. 5 is a front plan view of the contact lens package of FIG. 1.
FIG. 6 is a rear plan view of the contact lens package of FIG. 1.
FIG. 7 is a perspective view of a contact lens package having a four-paneled wrap.
FIG. 8 is a side plan view of the contact lens package of FIG. 7.
FIG. 9 is a top plan view of the contact lens package of FIG. 7.
FIG. 10 is a bottom plan view of the contact lens package of FIG. 7.
FIG. 11 is a front plan view of the contact lens package of FIG. 7.
FIG. 12 is a rear plan view of the contact lens package of FIG. 7.
FIG. 13 is a perspective view of a contact lens package having a four-paneled wrap.
FIG. 14 is a side plan view of the contact lens package of FIG. 13.
FIG. 15 is a top plan view of the contact lens package of FIG. 13.
FIG. 16 is a bottom plan view of the contact lens package of FIG. 13.
FIG. 17 is a front plan view of the contact lens package of FIG. 13.
FIG. 18 is a rear plan view of the contact lens package of FIG. 13.
FIG. 19 is a perspective view of a contact lens package having a four-paneled wrap.
FIG. 20 is a side plan view of the contact lens package of FIG. 19.
FIG. 21 is a top plan view of the contact lens package of FIG. 19.
FIG. 22 is a bottom plan view of the contact lens package of FIG. 19.
FIG. 23 is a front plan view of the contact lens package of FIG. 19.
FIG. 24 is a rear plan view of the contact lens package of FIG. 19.
FIG. 25 is a perspective view of a contact lens package having a four-paneled wrap.
FIG. 26 is a side plan view of the contact lens package of FIG. 25.
FIG. 27 is a top plan view of the contact lens package of FIG. 25.
FIG. 28 is a bottom plan view of the contact lens package of FIG. 25.
FIG. 29 is a front plan view of the contact lens package of FIG. 25.
FIG. 30 is a rear plan view of the contact lens package of FIG. 25.
FIG. 31 is a perspective view of a contact lens package having a four-paneled wrap.
FIG. 32 is a side plan view of the contact lens package of FIG. 31.
FIG. 33 is a front plan view of the contact lens package of FIG. 31.
FIG. 34 is a rear plan view of the contact lens package of FIG. 31.
FIG. 35 is a top plan view of the contact lens package of FIG. 31.
FIG. 36 is a bottom plan view of the contact lens package of FIG. 31.
FIG. 37 is a perspective view of a UDI wrap for a contact lens package.
FIG. 38 is a front plan view of UDI wrap panel A of FIG 37.
FIG. 39 is a front plan view of UDI wrap panel B of FIG 37.
FIG. 40 is a perspective view of a contact lens package having a six-paneled wrap.
FIG. 41 is a side plan view of the contact lens package of FIG. 40.
FIG. 42 is a top plan view of the contact lens package of FIG. 40.
FIG. 43 is a bottom plan view of the contact lens package of FIG. 40.
FIG. 44 is a front plan view of the contact lens package of FIG. 40.
FIG. 45 is a rear plan view of the contact lens package of FIG. 40.
FIG. 46 is a perspective view of a contact lens package having a shrink sleeve wrap.
FIG. 47 is a side plan view of the contact lens package of FIG. 46.
FIG. 48 is a top plan view of the contact lens package of FIG. 46.
FIG. 49 is a bottom plan view of the contact lens package of FIG. 46.
FIG. 50 is a front plan view of the contact lens package of FIG. 46.
FIG. 51 is a rear plan view of the contact lens package of FIG. 46.
FIG. 52 is a perspective view of an unwrapped array of base members of a sealed contact lens package (without the sealing member attached) and an array of wraps, similar to those of FIG. 1.
FIG. 53 is a perspective view similar to FIG. 52 with the array of base member wrapped with a three-panel wrap.
FIG. 54 is a side plan view of the array of FIG. 53.
FIG. 55 is a top plan view of the array of FIG. 53.
FIG. 56 is a bottom plan view of the array of FIG. 53.
FIG. 57 is a front plan view of the array of FIG. 53.
FIG. 58 is a rear plan view of the array of FIG. 53.
FIG. 59 is an illustration depicting a method of manufacturing a contact lens package.
FIG. 60 is a perspective view of a sealed contact lens package.
FIG. 61 is a perspective view of the sealed contact lens package of FIG. 60 with the sealing member removed illustrating the base member.
FIG. 62 is a perspective view of another base mem-

ber of another contact lens package.

DETAILED DESCRIPTION

[0017] The present contact lens packages include a plastic base member and a sealing member coupled to the base member to seal a contact lens in a cavity formed between the plastic base member and the sealing member. As used herein, the terms including and comprising are used synonymously and are open ended terms that do not preclude additional features unless specifically excluded. For purposes of convenience, the following description will focus on describing a single contact lens package for a single contact lens; however, it will be understood that the present disclosure can apply to multiple contact lens packages for multiple contact lenses. An unworn contact lens is provided in a contact lens packaging solution in the cavity to provide a sealed contact lens package or a sealed contact lens blister pack.

[0018] One example of a sealed contact lens package useful in the present contact lens packages is illustrated in FIG. 60. The sealed contact lens package 1012 of FIG. 60 includes a sealing member 1016 coupled to a plastic base member 1018. The plastic base member 1018 is illustrated in FIG. 61 with the sealing member 1016 removed from the base member. Another example sealed contact lens package (without the sealing member illustrated) is shown in FIG. 62. The plastic base member 1118 has a cavity 1120, and a sealing member is provided around the perimeter of the cavity 1120 to hermetically seal an unworn contact lens in the cavity. In addition, other conventional sealed contact lens packages can be used in the present contact lens packages described herein. Examples of sealed contact lens packages useful in the present invention include those described in the following: US6398018; US7426993; US7477366; US20120061260 and WO2013160667.

[0019] An unworn contact lens is sealed within the cavity of the sealed contact lens package and is packaged in a contact lens packaging solution. Any contact lens can be packaged therein. For example, the contact lens can be a hydrogel contact lens or it can be a silicone hydrogel contact lens. Examples of contact lenses that can be provided in the packages include those having the following United States Adopted Names (USANs): methafilcon A, ocufilcon A, ocufilcon B, ocufilcon C, ocufilcon D, omafilcon A, omafilcon B, comfilcon A, enfilcon A, stenfilcon A, etafilcon A, senofilcon A, narafilcon A, narafilcon B, balafilcon A, samfilcon A, lotrafilcon A, lotrafilcon B, somofilcon A, delefilcon A, and the like. The contact lens packaging solution is typically a buffered saline solutions, such as a phosphate buffered saline solution or a borate buffered saline solution, that may contain one or more additives, such as surfactants, wetting agents, viscosity agents, and the like.

[0020] The present contact lens package also includes a wrap that has one or more panels. The wrap is dimensioned to accommodate the sealed contact lens package and to also provide a UDI in both human readable form and machine readable form, in addition to other required regulatory information. As used herein, a wrap refers to a substrate or article comprising one or more panels coupled to a sealed contact lens package, and a UDI in both human readable form and machine readable form is provided on at least one of the panels. This wrap may be understood to be a "UDI wrap", or it may be understood to be a wrap having a "UDI panel". Thus, the wrap includes human readable information, such as letters, numbers, and images; and the wrap includes machine readable information, such as bar codes and the like. The wrap can be flexible or rigid, and as described herein, does not need to fully enclose or surround the individual sealed contact lens package. The wrap is coupled to the sealed contact lens package so that the wrap and sealed contact lens package do not become separated until a person opens the package to remove the unworn contact lens. For example, the wrap may be adhered to the sealed contact lens package, such as by using an adhesive between a surface of the wrap and a surface of the sealing member, or the wrap may be physically wrapped around the sealed contact lens package to mechanically enclose the sealed contact lens package within the wrap. Thus, the wrap cannot be inadvertently dislodged or separated from the sealed contact lens package. In some embodiments, it can be understood that a single contact lens package in accordance with the present disclosure comprises, consists essentially of, or consists of a sealed contact lens package containing an unworn contact lens and a wrap having human readable and computer readable information corresponding to the contact lens coupled or affixed to the sealed contact lens package. Therefore, each individual sealed contact lens package has a single wrap that contains a UDI that includes human readable information and machine readable information in addition to other information required by regulatory agencies. The present contact lens packages (i.e., sealed contact lens package and wrap) are dimensioned to fit within individual lens package slots of contact lens fitting sets or trial sets cases used in ECP offices. In addition, the present contact lens packages are also dimensioned to fit within multi-pack cartons, such as a carton dimensioned to contain three sealed contact lens packages.

[0021] It can therefore be understood that one aspect of the present disclosure relates to a contact lens package. A contact lens package includes a sealed contact lens package and a wrap (i.e., a UDI wrap) coupled to the sealed contact lens package. The sealed contact lens package includes a base member, and a sealing member coupled to the base member to provide a sealed cavity. An unworn contact lens, such as a hydrogel or silicone hydrogel contact lens, is provided in a contact lens packaging solution within the cavity. The wrap (UDI wrap) includes one or more panels. One or more of the panels includes a printing surface that includes a unique device identifier (UDI) in both human readable form and machine readable form. The human readable form includes num-

bers or letters, or combinations of numbers and letters. The machine readable form includes a barcode (such as one or more barcodes). It can therefore be understood that on a single panel a human readable UDI and a machine readable UDI is provided.

[0022] As stated above, the base member of the sealed contact lens package can be a variety of structures, such as a relatively rigid material or a flexible material. In some embodiments of the present packages, including the illustrated embodiments, the base member of the sealed contact lens package is a thermoplastic material and the base member includes a cavity and a substantially planar surface surrounding the cavity. The substantially planar surface provides a sealing surface for the sealing member. The base member can be made from a variety of materials. In the illustrated embodiments, the base member is a polyolefin material. Preferably, the base member comprises a polypropylene material. The base member is formed using conventional methods and equipment, such as by injection molding polypropylene resin into base member molds in an injection molding machine. The sealing member can also be formed by a variety of materials. For example, the sealing member can be a laminated structure comprising a foil and one or more layers of plastic, such as polypropylene and the like. The sealing member can include some human readable information, as desired. The sealing member is coupled to the base member by contacting the sealing surface of the base member with the sealing member and applying heat to fuse the two members together to provide a hermetic or airtight seal for the contact lens in the packaging solution in the cavity.

[0023] In certain embodiments, including some of the illustrated embodiments, the wrap includes an adhesive to adhere the wrap to the sealing member of the sealed contact lens package.

[0024] Reference will now be made to the illustrated embodiments of the present contact lens packages, as shown in the accompanying drawings.

[0025] FIGs. 1-6 illustrate a first embodiment of the present contact lens packages.

[0026] FIG. 1 illustrates a contact lens package 10 includes a sealed contact lens package 12 and a wrap (UDI wrap) 14 coupled to the sealed contact lens package 12. The base member 18 includes a cavity 20, which is hermetically sealed by a sealing member 16. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but reference can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 20. Also shown in FIG. 1 is that the contact lens package 10 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 14 is illustrated as including three panels, a first panel 30, a second panel 32, and a third panel 34. The panel arrangement is also shown in FIG. 2. In this embodiment, the wrap can be made from card stock or other similarly rigid material, or it can be made from flexible plastic materials, such as polypropylene films.

[0027] In FIG. 2, the first panel 30 is illustrated, and the first panel 30 has an adhesive surface. The adhesive surface is adhered to the sealing member of the sealed contact lens package. As shown in FIG. 2, the first panel has a proximal end P30 and a distal end D30. The proximal end P30 is adjacent to the proximal end P of the sealed contact lens package. The distal end D30 is adjacent the distal end of the sealed contact lens package. The second panel 32 extends from the distal end of the first panel. The third panel 34 also includes a proximal end P34 and a distal end D34. The distal end D34 is adjacent the second panel 32.

[0028] FIG. 3 provides a top plan view of the contact lens package of FIG. 1 and FIG. 2. FIG. 3 illustrates one pattern of how adhesive is provided on the first panel 30. It is shown that the first panel 30 has an active adhesive region 22 and a deadened adhesive region 24. The active adhesive region 22 overlays substantially all of the surface of the sealing member, and the deadened adhesive region 24 is made to not adhere and is provided in one or more regions around the perimeter of the sealing member. With such an arrangement, it is possible to ensure that the first panel 30 is removed with the sealing member when a person desires to open the sealed contact lens package to access the unworn contact lens. Preferably, the adhesive is a permanent adhesive, and a variety of adhesives can be used to couple the first panel to the sealing member. In certain embodiments, the adhesive is an acrylic adhesive. Acrylic adhesives can be obtained from companies such as Manter (Spain) or UPM Raflatac, Inc. (North Carolina, US), and the like. It will be understood that for the other embodiments described herein, when an adhesive is provided to couple the UDI wrap to the sealed contact lens package, the same adhesives can be used as described for this embodiment of FIGs. 1-6.

[0029] In view of the discussion above, and as shown in FIG. 3, embodiments of the present contact lens packages can include a UDI wrap having a first panel that has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member of the sealed contact lens package, and the adhesive surface includes a deadened adhesive portion disposed between the active adhesive portion and the perimeter of the first panel.

[0030] As shown in the embodiment illustrated in FIG. 2, embodiments of the present packages have first panels and third panels that have proximal end edges, and the proximal end edge of the third panel is aligned with the proximal end edge of the first panel.

[0031] FIG. 3 also illustrates the UDI 40 that is provided

on the first panel 30. The UDI 40 is a unique device identifier that is provided in both a human readable form 44, such as text or numbers, and a machine readable form 42, such as a bar code. In addition, other information can be provided on the first panel 30 in addition to the UDI 40, such as other text, numbers, or graphics, and other bar codes.

[0032] FIG. 4 provides a bottom plan view of the contact lens package 10 of FIG. 1. However, a further element 60 is depicted enclosing the contact lens package 10. The element 60 is a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package. The shrink sleeve 60 includes perforated segments 62, which are illustrated along the side of the contact lens package. The perforated segments 62 facilitate opening of the shrink sleeve 60. The shrink sleeve 60 is illustrated roughly in FIG. 4, but in practice, the sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0033] In addition, the shrink sleeve can provide protection to the information contained on the first panel by preventing the information from being rubbed or worn off. The shrink sleeve can also help reduce particulate contamination with the sealed contact lens package during handling and distribution. The shrink sleeve described for FIG. 4, and the shrink sleeves described further herein, can be made of any conventional material. For example, the shrink sleeves used with the present contact lens packages can be made from biaxially oriented polypropylene (BOPP). The shrink sleeves can be clear or colored, and can also include printing, such as text, numbers, or graphical images.

[0034] FIG. 5 illustrates a front plan view of the contact lens package 10 of FIG. 1. FIG. 6 illustrates a rear plan view of the contact lens package of FIG. 1.

[0035] In some embodiments, a contact lens package is as described above, and the wrap includes a first panel having an adhesive surface. The adhesive surface is adhered to the sealing member. The first panel has a proximal end adjacent to a proximal end of the sealed contact lens package and a distal end adjacent to a distal end of the sealed contact lens package. The wrap also includes a second panel extending from the distal end of the first panel; and a third panel including a proximal end and a distal end and the distal end is adjacent the second panel.

[0036] As described for FIG. 4, some of the embodiments of the above-described contact lens package may include a shrink sleeve extending around the wrap that is adhered to the sealed contact lens package. In further embodiments, the shrink sleeve can include one or more perforated segments that are effective in opening of the shrink sleeve.

[0037] In still further embodiments, it can be understood that the first panel has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member, and the first panel includes a deadened adhesive portion, or non-adhesive portion, disposed between the active adhesive portion and the perimeter of the first panel.

[0038] FIGs. 7-12 illustrate another contact lens package not being part of the invention

[0039] FIG. 7 illustrates a contact lens package 110 includes a sealed contact lens package 112 and a wrap (UDI wrap) 114 coupled to the sealed contact lens package 112. The base member 118 includes a cavity 120, which is hermetically sealed by a sealing member 116. A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 120. Also shown in FIG. 7 is that the contact lens package 110 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 114 is illustrated as including four panels, a first panel 130, a second panel 132, a third panel 134, and a fourth panel 136. Instead of wrapping the panels around the distal end of the sealed contact lens package, in the embodiment of FIG. 7, the panels are wrapped around the sides of the sealed contact lens package thereby providing a proximal end opening and a distal end opening. In this embodiment, the wrap 114 is made of card stock or other similarly rigid material.

[0040] In FIG. 8, the third panel 134 has an adhesive surface. The adhesive surface is adhered to the base member of the sealed contact lens package, such as at location 135. As shown in FIG. 8, the first panel has a proximal end P130 and a distal end D130. The proximal end P130 is adjacent to the proximal end P of the sealed contact lens package. The distal end D130 is adjacent the distal end of the sealed contact lens package. The second panel 132 extends from the right side of the first panel. The third panel 134 also includes a proximal end P134 and a distal end D134. A fourth panel 136 is provided connecting the third panel 134 to the first panel 130.

[0041] FIG. 9 provides a top plan view of the contact lens package of FIG. 7 and FIG. 8. FIG. 9 also illustrates the UDI 140 that is provided on the first panel 130. The UDI 140 is a unique device identifier that is provided in both a human readable form 144, such as text or numbers, and a machine readable form 142, such as a bar code. In addition, other information can be provided on the first panel 130 in addition to the UDI 140, such as other text, numbers, or graphics, and other bar codes.

[0042] FIG. 10 provides a bottom plan view of the contact lens package 110 of FIG. 7. The adhesive region 135 is illustrated as coupling the third panel 134 to the base member 112 at a region near the outer bottom surface of the cavity.

[0043] FIG. 11 illustrates a front plan view of the contact lens package 110 of FIG. 7. FIG. 12 illustrates a rear plan view of the contact lens package of FIG. 7.

[0044] Although not shown, similar to the embodiment

of FIGs. 1-6, a shrink sleeve can be provided around the UDI wrap 130 of the contact lens package 110.

[0045] FIGs. 13-18 illustrate a third embodiment of the present contact lens packages.

[0046] FIG. 13 illustrates a contact lens package 210 includes a sealed contact lens package 212 and a wrap (UDI wrap) 214 coupled to the sealed contact lens package 212. The base member 218 includes a cavity 220, which is hermetically sealed by a sealing member 216. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but reference can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 220. Also shown in FIG. 13 is that the contact lens package 210 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 214 is illustrated as including four panels, a first panel 230, a second panel 232, a third panel 234, and a fourth panel 231. The panel arrangement is also shown in FIG. 14. In this embodiment, the wrap can be made from card stock or other similarly rigid material, or it can be made from flexible plastic materials, such as polypropylene films.

[0047] In FIG. 14, the first panel 230 is illustrated, and the first panel 230 has an adhesive surface. The adhesive surface is adhered to the sealing member of the sealed contact lens package. As shown in FIG. 14, the first panel has a proximal end P230 and a distal end D230. The proximal end P230 is adjacent to the proximal end P of the sealed contact lens package. The distal end D230 is adjacent the distal end of the sealed contact lens package. The second panel 232 extends from the distal end of the first panel. The third panel 234 also includes a proximal end P234 and a distal end D234. The distal end D324 is adjacent the second panel 232. Fourth panel 231 is illustrated as being connected to the proximal end P230 of the first panel 230 and overlaying the proximal end P234 of third panel 234. In addition, a tab or other similar element can be provided near the proximal end of the contact lens package; the tab is effective in facilitation separating the sealing member from the base member, as the sealing member is attached to the first panel of the UDI wrap 214.

[0048] FIG. 15 provides a top plan view of the contact lens package of FIG. 13 and FIG. 14. FIG. 15 illustrates one pattern of how adhesive is provided on the first panel 230. It is shown that the first panel 230 has an active adhesive region 222 and a deadened adhesive region 224. The active adhesive region 222 overlays substantially all of the surface of the sealing member, and the deadened adhesive region 224 is made to not adhere and is provided in one or more regions around the perimeter of the sealing member. With such an arrangement, it is possible to ensure that the first panel 230 is removed with the sealing member when a person desires to open the sealed contact lens package to access the unworn contact lens. Preferably, the adhesive is a permanent adhesive, and a variety of adhesives can be used to couple the first panel to the sealing member. In certain embodiments, the adhesive is an acrylic adhesive, such as those described above.

[0049] In view of the discussion above, and as shown in FIG. 15, embodiments of the present contact lens packages can include a UDI wrap having a first panel that has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member of the sealed contact lens package, and the adhesive surface includes a deadened adhesive portion disposed between the active adhesive portion and the perimeter of the first panel.

[0050] As shown in the embodiment illustrated in FIG. 14, embodiments of the present packages have first panels and third panels that have proximal end edges, and the proximal end edge of the third panel is aligned with the proximal end edge of the first panel.

[0051] FIG. 15 also illustrates the UDI 240 that is provided on the first panel 230. The UDI 240 is a unique device identifier that is provided in both a human readable form 244, such as text or numbers, and a machine readable form 242, such as a bar code. In addition, other information can be provided on the first panel 230 in addition to the UDI 240, such as other text, numbers, or graphics, and other bar codes.

[0052] FIG. 16 provides a bottom plan view of the contact lens package 210 of FIG. 13. As described with respect to FIG. 4, the contact lens package 210 can include a a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package. The shrink sleeve can include perforated segments along the side of the contact lens package. The perforated segments facilitate opening of the shrink sleeve. The shrink sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0053] In addition, the shrink sleeve can provide protection to the information contained on the first panel by preventing the information from being rubbed or worn off. The shrink sleeve can also help reduce particulate contamination with the sealed contact lens package during handling and distribution.

[0054] FIG. 17 illustrates a front plan view of the contact lens package 210 of FIG. 13. FIG. 18 illustrates a rear plan view of the contact lens package of FIG. 13.

[0055] In view of the description of the embodiment of FIGs. 13-18, it can be understood that some embodiments have a first panel with a proximal end edge and a third panel with a proximal end edge, and the proximal end edge of the first panel of the wrap overlays the proximal end edge of the third panel wrap.

[0056] FIGs. 19-24 illustrate a fourth embodiment of

the present contact lens packages.

[0057] FIG. 19 illustrates a contact lens package 310 includes a sealed contact lens package 312 and a wrap (UDI wrap) 314 coupled to the sealed contact lens package 312. The base member 318 includes a cavity 320, which is hermetically sealed by a sealing member 316. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but reference can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 320. Also shown in FIG. 19 is that the contact lens package 310 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 314 is illustrated as including four panels, a first panel 330, a second panel 332, a third panel 334, and a fourth panel 331. The panel arrangement is also shown in FIG. 20. In this embodiment, the wrap can be made from card stock or other similarly rigid material, or it can be made from flexible plastic materials, such as polypropylene films.

[0058] In FIG. 20, the first panel 330 is illustrated, and the first panel 330 has an adhesive surface. The adhesive surface is adhered to the sealing member of the sealed contact lens package. As shown in FIG. 20, the first panel has a proximal end P330 and a distal end D330. The proximal end P330 is adjacent to the proximal end P of the sealed contact lens package. The distal end D330 is adjacent the distal end of the sealed contact lens package. The second panel 332 extends from the distal end of the first panel. The third panel 334 also includes a proximal end P334 and a distal end D334. The distal end D334 is adjacent the second panel 332. Fourth panel 331 is illustrated as being connected to the proximal end P334 of the third panel 334 and overlaying the proximal end P330 of first panel 330.

[0059] FIG. 21 provides a top plan view of the contact lens package of FIG. 19 and FIG. 20. FIG. 21 illustrates one pattern of how adhesive is provided on the first panel 330. It is shown that the first panel 330 has an active adhesive region 322 and a deadened adhesive region 324. The active adhesive region 322 overlays substantially all of the surface of the sealing member, and the deadened adhesive region 324 is made to not adhere and is provided in one or more regions around the perimeter of the sealing member. With such an arrangement, it is possible to ensure that the first panel 330 is removed with the sealing member when a person desires to open the sealed contact lens package to access the unworn contact lens. Preferably, the adhesive is a permanent adhesive, and a variety of adhesives can be used to couple the first panel to the sealing member. In certain embodiments, the adhesive is an acrylic adhesive, such as those described above.

[0060] In view of the discussion above, and as shown in FIG. 21, embodiments of the present contact lens packages can include a UDI wrap having a first panel that has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member of the sealed contact lens package, and the adhesive surface includes a deadened adhesive portion disposed between the active adhesive portion and the perimeter of the first panel.

[0061] As shown in the embodiment illustrated in FIG. 20, embodiments of the present packages have first panels and third panels that have proximal end edges, and the proximal end edge of the third panel is aligned with the proximal end edge of the first panel.

[0062] FIG. 21 also illustrates the UDI 340 that is provided on the first panel 330. The UDI 340 is a unique device identifier that is provided in both a human readable form 344, such as text or numbers, and a machine readable form 342, such as a bar code. In addition, other information can be provided on the first panel 330 in addition to the UDI 340, such as other text, numbers, or graphics, and other bar codes.

[0063] FIG. 22 provides a bottom plan view of the contact lens package 310 of FIG. 19. As described with respect to FIG. 4, the contact lens package 310 can include a a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package. The shrink sleeve can include perforated segments along the side of the contact lens package. The perforated segments facilitate opening of the shrink sleeve. The shrink sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0064] In addition, the shrink sleeve can provide protection to the information contained on the first panel by preventing the information from being rubbed or worn off. The shrink sleeve can also help reduce particulate contamination with the sealed contact lens package during handling and distribution.

[0065] FIG. 23 illustrates a front plan view of the contact lens package 310 of FIG. 19. FIG. 24 illustrates a rear plan view of the contact lens package of FIG. 19.

[0066] In view of the description of the embodiment of FIGs. 19-24, it can be understood that some embodiments have a first panel with a proximal end edge and a third panel with a proximal end edge, and the proximal end edge of the third panel of the wrap overlays the proximal end edge of the first panel wrap.

[0067] FIGs. 25-30 illustrate another contact lens package not being part of the invention.

[0068] FIG. 25 illustrates a contact lens package 410 includes a sealed contact lens package 412 and a wrap (UDI wrap) 414 coupled to the sealed contact lens package 412. The base member 418 includes a cavity 420, which is hermetically sealed by a sealing member 416. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but refer-

ence can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 420. Also shown in FIG. 25 is that the contact lens package 410 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 414 is illustrated as including five panels, a first panel 430, a second panel 432, a third panel 434, a fourth panel 437, and a fifth panel 436. The panel arrangement is also shown in FIG. 26. In this embodiment, the wrap can be made from card stock or other similarly rigid material, or it can be made from flexible plastic materials, such as polypropylene films. Preferably, the wrap is card stock.

[0069] In FIG. 26, the first panel 430 is illustrated, and the first panel 430 has an adhesive surface. The adhesive surface is adhered to the sealing member of the sealed contact lens package. As shown in FIG. 26, the first panel has a proximal end P430 and a distal end D430. The proximal end P430 is adjacent to the proximal end P of the sealed contact lens package. The distal end D430 is adjacent the distal end of the sealed contact lens package. The second panel 432 extends from the distal end of the first panel. The third panel 434 also includes a proximal end P434 and a distal end D434. The distal end D434 is adjacent the second panel 432. Fourth panel 437 is illustrated as being connected to the proximal end P430 of the first panel 430 and extending downwardly to the proximal end P434 of third panel 434. Fifth panel 436 extends from the depending edge of the fourth panel 437 and is overlaid by the third panel 434 such that the proximal end P434 is adjacent the depending edge of the fourth panel 437. The third panel 434 also includes an opening or cutout 438 (FIG. 28) to allow at least a portion of the base member 418 to extend through the opening 438.

[0070] FIG. 27 provides a top plan view of the contact lens package of FIG. 25 and FIG. 26. FIG. 27 illustrates one pattern of how adhesive is provided on the first panel 430. It is shown that the first panel 430 has an active adhesive region 422 and a deadened adhesive region 424. The active adhesive region 422 overlays substantially all of the surface of the sealing member, and the deadened adhesive region 424 is made to not adhere and is provided in one or more regions around the perimeter of the sealing member. With such an arrangement, it is possible to ensure that the first panel 430 is removed with the sealing member when a person desires to open the sealed contact lens package to access the unworn contact lens. Preferably, the adhesive is a permanent adhesive, and a variety of adhesives can be used to couple the first panel to the sealing member. In certain embodiments, the adhesive is an acrylic adhesive, such as those described above.

[0071] In view of the discussion above, and as shown in FIG. 27, embodiments of the present contact lens packages can include a UDI wrap having a first panel that has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member of the sealed contact lens package, and the adhesive surface includes a deadened adhesive portion disposed between the active adhesive portion and the perimeter of the first panel.

[0072] As shown in the embodiment illustrated in FIG. 26, embodiments of the present packages have first panels and third panels that have proximal end edges, and the proximal end edge of the third panel is aligned with the proximal end edge of the first panel.

[0073] FIG. 27 also illustrates the UDI 440 that is provided on the first panel 430. The UDI 440 is a unique device identifier that is provided in both a human readable form 444, such as text or numbers, and a machine readable form 442, such as a bar code. In addition, other information can be provided on the first panel 430 in addition to the UDI 440, such as other text, numbers, or graphics, and other bar codes.

[0074] FIG. 28 provides a bottom plan view of the contact lens package 410 of FIG. 25. As described with respect to FIG. 4, the contact lens package 410 can include a a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package. The shrink sleeve can include perforated segments along the side of the contact lens package. The perforated segments facilitate opening of the shrink sleeve. The shrink sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0075] In addition, the shrink sleeve can provide protection to the information contained on the first panel by preventing the information from being rubbed or worn off. The shrink sleeve can also help reduce particulate contamination with the sealed contact lens package during handling and distribution. However, it can be understood that the shrink sleeve is optional for this embodiment since additional securement of the sealed contact lens package in the wrap is achieved by the opening 438 accommodating the cavity portion of the sealed contact lens package 418.

[0076] In addition, in some versions of these embodiments, the adhesive can be optional due to the retention of the sealed contact lens package provided by opening 438.

[0077] FIG. 29 illustrates a front plan view of the contact lens package 410 of FIG. 25. FIG. 30 illustrates a rear plan view of the contact lens package of FIG. 25.

[0078] As can be appreciated from the description of the embodiment of FIGs. 25-30, some embodiments of the present contact lens packages can be understood to include a wrap that further includes a fourth panel that descends from the proximal edge of the first panel, and a fifth panel connected to the fourth panel. The fifth panel

has a distal end edge located more proximally to the cavity of the sealed contact lens package. In still further embodiments, the fifth panel is located between the base member and the third panel of the wrap, and the third panel of the wrap includes an opening to accommodate the cavity or bottom of the base member.

[0079] FIGs. 31-36 illustrate another contact lens package not being part of the invention.

[0080] FIG. 31 illustrates a contact lens package 510 includes a sealed contact lens package 512 and a wrap (UDI wrap) 514 coupled to the sealed contact lens package 512. The base member 518 includes a cavity 520, which is hermetically sealed by a sealing member 516. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but reference can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 520. The wrap 514 is illustrated as including one panel 530. In this embodiment, the wrap can be made from card stock or other similarly rigid material, or it can be made from flexible plastic materials, such as polypropylene films. Preferably, the wrap is a flexible plastic material.

[0081] The contact lens package 510 further includes a base member 550 that includes a slot 552 to receive a proximal end of the sealed contact lens package; and a back surface 554 extending from the base member 550 toward a distal end of the sealed contact lens package.

[0082] In FIG. 32, illustrates a side view of the contact lens package 510. Although the sealed contact lens package 512 can be mechanically coupled to the base member 550 by way of the physical engagement with the perimeter edges of the slot 552, an adhesive 556 can be provided between the base member 518 and the back surface 554. An exposed rear surface 555 opposes back surface 554. As described above, any suitable adhesive can be used to further secure the sealed contact lens package with the UDI wrap 514 to the base member 550 or back surface 554.

[0083] FIG. 33 provides a front plan view of the contact lens package of FIG. 31 and FIG. 32. Similar to the embodiments described above, the adhesive can be provided in active regions corresponding to the shape of the sealing member 516, and deadened regions. FIG. 33 also illustrates the UDI 540 that is provided on the first panel 530. The UDI 540 is a unique device identifier that is provided in both a human readable form 544, such as text or numbers, and a machine readable form 542, such as a bar code. In addition, other information can be provided on the first panel 530 in addition to the UDI 540, such as other text, numbers, or graphics, and other bar codes.

[0084] In view of the discussion above, and as shown in FIG. 33, embodiments of the present contact lens packages can include a UDI wrap having a first panel that has a perimeter, and the adhesive surface includes an active adhesive portion having the same shape as the shape of the sealing member of the sealed contact lens package, and the adhesive surface includes a deadened adhesive portion disposed between the active adhesive portion and the perimeter of the first panel.

[0085] FIG. 34 provides a rear plan view of the contact lens package 510 of FIG. 31. In this view, exposed rear surface 555 includes human readable information, such as letters and numbers that may be required by regulatory agencies for contact lenses. As described with respect to FIG. 4, the contact lens package 510 can include a a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package, or the combination of the UDI wrapped sealed contact lens package and base member. The shrink sleeve can include perforated segments along the side of the contact lens package. The perforated segments facilitate opening of the shrink sleeve. The shrink sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0086] In addition, the shrink sleeve can provide protection to the information contained on the first panel by preventing the information from being rubbed or worn off. The shrink sleeve can also help reduce particulate contamination with the sealed contact lens package during handling and distribution. However, it can be understood that the shrink sleeve is optional for this embodiment since additional securement of the sealed contact lens package in the wrap is achieved by the slot 552 accommodating the proximal portion of the UDI wrapped sealed contact lens package.

[0087] FIG. 35 illustrates a top plan view of the contact lens package 510 of FIG. 31. FIG. 36 illustrates a bottom plan view of the contact lens package of FIG. 31.

[0088] As described in the embodiments for FIGs. 31-36, it can be understood that a contact lens package includes a base member that includes a slot to receive a proximal end of the sealed contact lens package, and a back surface extending from the base member toward a distal end of the sealed contact lens package.

[0089] FIGs. 37-39 illustrate another contact lens package not being part of the invention.

[0090] FIG. 37 illustrates a contact lens package 610 (the sealed contact lens package is not illustrated for purposes of convenience). In this embodiment, the wrap 614 is a two panel wrap. The wrap includes a first panel 630 and a second panel 655. The first panel 630 overlays second panel 655, and includes an adhesive to allow the panels to remain coupled together. The first panel 630 also includes the UDI 640 that comprises human readable information 644 and computer readable information 642. The second panel 655 includes human readable information, such as letters and numbers that may be required by regulatory agencies for contact lenses. The second panel 655 includes a permanent adhesive, as described herein, to couple the second panel to the sealing member of the sealed contact lens package. The first

panel 630 also includes an adhesive to attach the first panel to the second panel 655, and to allow the separation of the first panel from the second panel, as needed, to access the information contained thereon.

[0091] As described with respect to FIG. 4, the contact lens package 610 can include a a shrink wrap or shrink sleeve that extends around the UDI wrap that is adhered to the sealed contact lens package. The shrink sleeve can include perforated segments along the side of the contact lens package. The perforated segments facilitate opening of the shrink sleeve. The shrink sleeve will form a relatively tight fit over the contact lens package, and will not add substantially to the dimensions of the contact lens package without the sleeve.

[0092] The embodiments of FIG. 37-39 illustrate an embodiment where the wrap includes a first panel adhered to the sealing member of the sealed contact lens package, and a second panel adhered to the first panel. The second panel substantially overlays a major portion of the first panel. The second panel includes the printed surface that includes the unique device identifier in both human readable form and machine readable form.

[0093] FIGs. 40-45 illustrate another contact lens package not being part of the invention.

[0094] FIG. 40 illustrates a contact lens package 710 includes a sealed contact lens package 712 and a wrap (UDI wrap) 714 coupled to the sealed contact lens package 712. The base member 718 includes a cavity 720, which is hermetically sealed by a sealing member 716. A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity 720. Also shown in FIG. 40 is that the contact lens package 710 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 714 is illustrated as including six panels, a first panel 730, a second panel 732, a third panel 734, a fourth panel 736, a fifth panel 375, and a sixth panel 737. Instead of wrapping the panels only around the distal end of the sealed contact lens package or only around the sides of the sealed contact lens package, in the embodiment of FIG. 40, the panels are wrapped around all of the sides of the sealed contact lens package thereby providing the sealed contact lens package in an enclosed UDI wrap 714. In this embodiment, the wrap 714 is made of card stock or other similarly rigid material.

[0095] As shown in FIG. 41, the first panel has a proximal end P730 and a distal end D730. The proximal end P730 is adjacent to the proximal end P of the sealed contact lens package. The distal end D730 is adjacent the distal end of the sealed contact lens package. The second panel 732 extends from the right side of the first panel. The third panel 734 also includes a proximal end P734 and a distal end D734. Although an adhesive is not required since the sealed contact lens package is enclosed in the wrap 714, an adhesive may be used to provide additional coupling, such as between the bottom of the base member 718 and the third panel 734 or between the first panel 730 and the sealing member 716.

[0096] FIG. 42 provides a top plan view of the contact lens package of FIG. 40 and FIG. 41. FIG. 42 also illustrates the UDI 740 that is provided on the first panel 730. The UDI 740 is a unique device identifier that is provided in both a human readable form 744, such as text or numbers, and a machine readable form 742, such as a bar code. In addition, other information can be provided on the first panel 730 in addition to the UDI 740, such as other text, numbers, or graphics, and other bar codes.

[0097] FIG. 43 provides a bottom plan view of the contact lens package 710 of FIG. 40. FIG. 44 illustrates a front plan view of the contact lens package 710 of FIG. 40. FIG. 45 illustrates a rear plan view of the contact lens package of FIG. 40.

[0098] Although not shown, similar to the embodiment of FIGs. 1-6, a shrink sleeve can be provided around the UDI wrap 730 of the contact lens package 710.

[0099] Additional embodiments of the present contact lens packages, including the embodiments of FIGs. 7-12 and FIGs. 40-45, can be understood to include (i) a first panel that includes the unique device identifier, the first panel includes a proximal end and an opposing distal end, and a left edge and a right edge extending from the proximal to the distal end; (ii) a second panel depending from said left edge of the first panel; (iii) a third panel depending from said right edge of the first panel; and (iv) a fourth panel connecting the second panel and the third panel and being positioned adjacent the cavity of the base member.

[0100] In some of the four-paneled embodiments described above, the first panel is a solid substrate having a perimeter defined by a proximal end edge, a distal end edge, the left edge, and the right edge. In other words, the first panel is free of a window, opening, or other transparent member.

[0101] In still further embodiments, such as those illustrated in FIGs. 40-45, the wrap may include a fifth panel connecting the proximal end edge of the first panel and the proximal end edge of the fourth panel; and a sixth panel connecting the distal end edge of the first panel and the distal end edge of the fourth panel.

[0102] FIGs. 46-51 illustrate another contact lens package not being part of the invention.

[0103] FIG. 46 illustrates a contact lens package 810 includes a sealed contact lens package 812 and a wrap (UDI wrap) 814 coupled to the sealed contact lens package 812. The base member 818 includes a cavity 820, which is hermetically sealed by a sealing member 816. (The details of the sealing member are not illustrated in the majority of the drawings for convenience, but reference can be made to FIG. 60 to understand the relationship between the sealing member and the base member). A contact lens, such as a hydrogel or silicone hydrogel contact lens (not shown), is provided in the cavity

820. Also shown in FIG. 46 is that the contact lens package 810 has a proximal end P and a distal end D, which corresponds to the proximal end and distal end of the sealed contact lens package, respectively. Stated differently, the proximal end refers to the portion of the base member that has a finger or thumb grip, and the distal end refers to the portion of the base member on the opposite end. The wrap 814 is illustrated as including two panels, a first panel 830, and a second panel 834. The panel arrangement is also shown in FIG. 47. In this embodiment, the wrap can be made from flexible plastic materials, such as polypropylene films, or a combination of card stock and flexible plastic materials (e.g., the panel 830 can be card stock, and the panel 834 can be a flexible plastic material). In a preferred embodiment, the wrap 814 is a shrink sleeve made from biaxially oriented polypropylene (BOPP).

[0104] As shown in FIG. 47, the first panel has a proximal end P830 and a distal end D830. The proximal end P830 is adjacent to the proximal end P of the sealed contact lens package. The distal end D830 is adjacent the distal end of the sealed contact lens package. The second panel 834 also includes a proximal end P834 and a distal end D834.

[0105] FIG. 48 provides a top plan view of the contact lens package of FIG. 46 and FIG. 47. A UDI 840 is provided on the first panel 830. The UDI 840 is a unique device identifier that is provided in both a human readable form 844, such as text or numbers, and a machine readable form 842, such as a bar code. In addition, other information can be provided on the first panel 830 in addition to the UDI 840, such as other text, numbers, or graphics, and other bar codes. Preferably, the UDI 840 is printed directly onto the shrink sleeve material. The shrink sleeve can include some pre-printed information that is present prior to coupling it to the sealed contact lens package 812, and then it can be printed with variable information, including the UDI information after being coupled to the sealed contact lens package.

[0106] FIG. 49 provides a bottom plan view of the contact lens package 810 of FIG. 46. FIG. 50 illustrates a front plan view of the contact lens package 810 of FIG. 46. FIG. 51 illustrates a rear plan view of the contact lens package of FIG. 46.

[0107] As can be appreciated from the description of FIGs. 46-51, some embodiments of the contact lens packages my include a wrap that is a shrink sleeve having printing on the first panel.

[0108] The present contact lens packages are dimensioned or sized and shaped to enable the individual contact lens packages to fit within contact lens trial set or fitting set containers. Thus, the wraps of the contact lens packages should not substantially increase the dimensions of the sealed contact lens package. However, a variety of dimensions are embodied within the present contact lens packages. For example, the present contact lens packages can have a maximum width from about 25 mm to about 40 mm. In some embodiments, the maximum width is about 30 mm to 40 mm. The maximum length of the contact lens package can vary from about 40 mm to about 70 mm. In some embodiments, the contact lens package has a maximum length from about 50 mm to about 60 mm. In at least one embodiment, the maximum width of the package can be from 33-35 mm and the maximum length of the package can be from 54-56 mm. The printed information, including the UDI information, should fit within the dimensions of the package, and still provide an unprinted border around the information. One example of suitable print dimensions in view of the package dimensions above is approximately 25 mm wide and 45 mm long. The maximum height of the contact lens packages typically is between 5 mm and 25 mm. In some embodiments, the maximum height of the contact lens package is from about 10 mm to about 20 mm. This maximum height typically corresponds to a region of the package near the cavity of the sealed contact lens package.

[0109] As mentioned herein, the present contact lens packages can also be provided in an array of more than one contact lens package. As examples, an array of contact lens packages may consist of two, three, four, or five contact lens packages coupled together to form an array. Additional examples may include more than five contact lens packages coupled together. In an array, a contact lens package is positioned adjacent at least one other contact lens package. In the array, each of the contact lens packages of the array of packages includes a base member and a sealing member sealed thereto, and as described herein with respect to the single packages. The array of contact lens packages also includes a UDI wrap, as described herein, coupled to the array of sealed contact lens packages. As one example, in an array, each sealing member for an individual base member can be understood to be a component of a sealing layer. The sealing layer spans the entire array of contact lens packages. Individual sealed packages can be separated from the array along perforations provided between two sealed contact lens packages.

[0110] FIG. 52 illustrates an array 910 of contact lens packages prior to assembly. As illustrated, and understood from the description herein, an array of base members 918 are provided, each base member has a cavity 920. An array wrap 914 is illustrated as having three panels, 930, 932, 934. This embodiment is similar to the three panel embodiment of FIGs. 1-6. Perforations 935 are provided between two wraps of the array wrap 914, and correspond to the location of perforations between sealing members of a sealing layer (not shown) that overlays the array of base members 918.

[0111] FIGs. 53-58 illustrate a tenth embodiment of the present contact lens packages, which is an assembled array of contact lens packages, as described for FIG. 52.

[0112] FIG. 53 illustrates a contact lens package array 910 that includes a plurality of sealed contact lens packages (e.g., five in this embodiment), coupled to a corresponding number of wraps 914. Each wrap 914 has a a

first panel 930, a second panel 932, and a third panel 934 (see FIG. 54), as described for the embodiment of FIGs. 1-6. Perforations 935 are illustrated between two contact wrapped contact lens packages.

[0113] FIG. 54 illustrates the UDI 940 provided on each of the contact lens packages of the array, and each UDI comprises human readable information 944 and computer readable information 942, as described herein. FIG. 56 illustrates the bottom plan view of the array 910. FIG. 57 illustrates the front plan view of the array 910. FIG. 58 illustrates the rear plan view of the array 910.

[0114] As understood from the embodiments of FIGs. 52-58, a contact lens package may include more than one sealed contact lens packages arranged in an array. The sealed contact lens packages have perforations in the sealing member at a location corresponding to adjacent base members. The wrap can include multiple first panels that correspond to the same number of sealed contact lens packages. Each first panel includes a printed surface with the unique device identifier in both human readable form and machine readable form.

[0115] The present packages and arrays of packages can be made using conventional methods known to persons of ordinary skill in the art. For example, the base members of the packages and packages arrays can be injection molded from thermoplastic resin materials in an injection molding machine. A liquid, such as a contact lens packaging solution, can be dispensed in the cavity of the base member, and a contact lens can be inserted into the liquid. Alternatively, a contact lens can be placed into the cavity, and a liquid can then be dispensed in the cavity. The sealing member can then be applied to the sealing area of the base member to seal the liquid and contact lens in the cavity. The sealed package containing the hydrated contact lens can then be sterilized and prepared for distribution.

[0116] In accordance with another aspect of the present invention, a method of manufacturing a contact lens package, including arrays of contact lens packages, includes a step of providing a sealed contact lens package. The sealed contact lens package is as described herein, and includes a base member and a sealing member coupled to the base member to provide a cavity. An unworn contact lens is provided in a contact lens packaging solution within the cavity. The method also includes a step of coupling a wrap to the sealed contact lens package. The wrap includes at least one panel, which includes a printed surface that includes a unique device identifier in both human readable form and computer readable form. The human readable form includes numbers, letters, or both. The machine readable form includes a barcode (i.e., one or more barcodes).

[0117] In some embodiments, the base member is a thermoplastic materials that includes a cavity and a substantially planar surface surrounding the cavity. The substantially planar surface provides a sealing surface for the sealing member. Some examples include those described hereinabove. In some embodiments, the method may include the additional step of adhering an adhesive surface of a first panel of the wrap to the sealing member, wherein the first panel includes a proximal end adjacent to a proximal end of the sealed contact lens package, and a distal end adjacent to the distal end of the sealed contact lens package.

[0118] In a further embodiment, a step of folding a second panel of the wrap is provided. The second panel is folded to extend from the distal end of the first panel. In yet an additional embodiment, the method comprises a step of folding the third panel of the wrap, where the third panel includes a proximal end and distal end and it is folded so that the distal end of the third panel is adjacent the second panel.

[0119] One example of the present methods is illustrated in FIG. 59. A method 1100 of manufacturing a contact lens package is provided. A sealed contact lens package is provided and includes a base member 1118 and a sealing member 1116 coupled thereto, and as described herein. The sealed contact lens package is placed in contact with a first panel 1130 of a wrap 1114 such that an adhesive surface contacts the sealing member 1116 is couples the first panel 1130 to the sealing member 1116. The wrap 1114 is provided on a roll and unrolls as the sealed contact lenses are coupled to the wrap 1114. The second panel 1132 and the third panel 1134 are thus folded so that the proximal end of the third panel is aligned with the proximal end of the first panel. A shrink sleeve 1160 receives the contact lens package with the UDI wrap 1114. The shrink sleeve 1160 is shrunk to provide a snug fit around the wrapped contact lens package. Subsequently, the contact lens package can be opened by separating the shrink sleeve along perforations 1162. When the first panel 1130 is pulled away from the base member, the sealing member 1116 is separated from the base member as well, thereby revealing the unworn contact lens contained in the cavity formed between the base member and the sealing member.

[0120] Although the disclosure herein refers to certain specific embodiments, it is to be understood that these embodiments are presented by way of example and not by way of limitation. Any feature or combination of features described herein are included within the scope of the present invention as defined by the claims provided that the features included in any such combination are not mutually inconsistent as will be apparent from the context, this specification, and the knowledge of one of ordinary skill in the art.

Claims

1. A contact lens package (10, 210, 310), comprising:

a sealed contact lens package (12, 212, 312), wherein the sealed contact lens package (12, 212, 312) includes a base member (18, 218, 318), and a sealing member (16, 216, 316) cou-

pled to the base member (18, 218, 318) to provide a sealed cavity, and an unworn contact lens is provided in a contact lens packaging solution within the sealed cavity;
at least one panel (30, 230, 330) that comprises a printing surface that comprises a unique device identifier (40, 240, 340) in both a human readable form (44, 244, 344) including numbers or letters, or combinations thereof, and a machine readable form (42, 242, 342) including a barcode;
and the base member (18, 218, 318) is a thermoplastic material comprising a cavity (20, 220, 320) and a substantially planar surface surrounding the cavity (20, 220, 320), said substantially planar surface providing a sealing surface for the sealing member (16, 216, 316);
CHARACTERISED IN THAT
the contact lens package comprises a wrap (14, 214, 314) including the at least one panel (30, 230, 330), wherein the wrap (14, 214, 314) comprises a first panel (30, 230, 330) having an adhesive surface, said adhesive surface adhered to the sealing member (16, 216, 316), said first panel (30, 230, 330) including a proximal end (P) adjacent to a proximal end of said sealed contact lens package (12, 212, 312) and a distal end (D) adjacent to a distal end of said sealed contact lens package (12, 212, 312), a second panel (32, 232, 332) extending from said distal end of said first panel; and a third panel (34, 234, 334) including a proximal end and a distal end and said distal end being adjacent said second panel, and wherein the proximal end of each of the third panel and first panel has a proximal end edge, and the proximal end edge of the first panel of the wrap overlays the proximal end edge of the third panel of the wrap;
and the first panel has an active adhesive region and a deadened adhesive region, the active adhesive region overlays substantially all of the surface of the sealing member, and the deadened adhesive region is made to not adhere and is provided in one or more regions around the perimeter of the sealing member.

2. The package of claim 1, further comprising a shrink sleeve (60, 1160) extending around the wrap adhered to the sealed contact lens package.

3. The package of any one of claims 1-2, wherein the proximal end of each of the third panel and first panel has a proximal end edge, and the proximal end edge of the third panel of the wrap is aligned with the proximal end edge of the first panel of the wrap.

4. The package of any one of claims 1-2, wherein the proximal end of each of the third panel and first panel has a proximal end edge, and the proximal end edge of the third panel of the wrap overlays the proximal end edge of the first panel of the wrap.

5. The package of any one of claims 1-2, wherein the wrap further comprises a fourth panel descending from the proximal edge of the first panel, and a fifth panel connected to the fourth panel and having a distal end edge located proximal to the cavity of the sealed contact lens package.

6. The package of any one of claims 1-3, comprising a plurality of the sealed contact lens packages arranged in an array and having perforations in the sealing member at a location corresponding to adjacent base members; and wherein the wrap includes a plurality of first panels corresponding to the number of sealed contact lens packages, each first panel including a printed surface with the unique device identifier in both human readable form and machine readable form.

7. The package of claim 1, further comprising a base member including a slot to receive a proximal end of the sealed contact lens package; and a back surface extending from the base member toward a distal end of the sealed contact lens package.

8. The package of claim 1, wherein the wrap comprises the first panel adhered to the sealing member of the sealed contact lens package, and the second panel adhered to the first panel and substantially overlaying a major portion of the first panel, the second panel including the printed surface that comprises the unique device identifier in both human readable form and machine readable form.

9. A method of manufacturing a contact lens package (10, 210, 310), comprising:

providing a sealed contact lens package (12, 212, 312), said sealed contact lens package comprising a base member (18, 218, 318), a sealing member (16, 216, 316) coupled to the base member to provide a sealed cavity, and an unworn contact lens provided in a contact lens packaging solution within the sealed cavity;
and providing at least one panel (30, 230, 330) for the sealed contact lens package (12, 212, 312) that includes a printed surface comprising a unique device identifier (40, 240, 340) in both human readable form (44, 244, 344) comprising numbers, or letters, or combinations thereof, and machine readable form (42, 242, 342) comprising a barcode;
and wherein the base member (18, 218, 318) is a thermoplastic material comprising a cavity (20, 220, 320) and a substantially planar surface sur-

rounding the cavity (20, 220, 320), said substantially planar surface providing a sealing surface for the sealing member (16, 216, 316,);

CHARACTERISED BY

the contact lens package comprises a wrap (14, 214, 314) including the at least one panel (30, 230, 330), the at least one panel (30, 230, 330) coupled to the sealed contact lens package (12, 212, 312) by adhering the wrap (14, 214, 314) to the sealing member (16, 216, 316), and wherein said at least one panel is a first panel (30, 230, 330) including a proximal end adjacent to a proximal end (P) of said sealed contact lens package (30, 230, 330) and a distal end (D) adjacent to a distal end of said sealed contact lens package (30, 230, 330) folding a second panel (32, 232, 332) of the wrap (14, 214, 314) to extend from said distal end of said first panel (30, 230, 330); and folding a third panel (34, 234, 334) of the wrap (14, 214, 314), said third panel (24, 234, 334) including a proximal end and a distal end so that said distal end of the third panel (34, 234, 334) is adjacent said second panel (32, 232, 332);

and the first panel (30, 230, 330) has an active adhesive region and a deadened adhesive region,

the active adhesive region overlays substantially all of the surface of the sealing member (16, 216, 316), and the deadened adhesive region is made to not adhere and is provided in one or more regions around the perimeter of the sealing member (16, 216, 316).

Patentansprüche

1. Kontaktlinsenverpackung (10, 210, 310), umfassend:

eine versiegelte Kontaktlinsenverpackung (12, 212, 312), wobei die versiegelte Kontaktlinsenverpackung (12, 212, 312) ein Basiselement (18, 218, 318) und ein Versiegelungselement (16, 216, 316) umfasst, das mit dem Basiselement (18, 218, 318) verbunden ist, um einen versiegelten Hohlraum bereitzustellen, und eine ungetragene Kontaktlinse in einer Kontaktlinsenverpackungslösung innerhalb des versiegelten Hohlraums bereitgestellt wird;

mindestens eine Platte (30, 230, 330), die eine Druckfläche umfasst, die eine eindeutige Gerätekennung (40, 240, 340) sowohl in einer für Menschen lesbaren Form (44, 244, 344), die Zahlen oder Buchstaben oder Kombinationen davon enthält, als auch in einer maschinenlesbaren Form (42, 242, 342), die einen Strichcode enthält, umfasst;

und das Basiselement (18, 218, 318) ein thermoplastisches Material ist, das einen Hohlraum (20, 220, 320) und eine im Wesentlichen ebene Oberfläche aufweist, die den Hohlraum (20, 220, 320) umgibt, wobei die im Wesentlichen ebene Oberfläche eine Versiegelungsfläche für das Versiegelungselement (16, 216, 316) bildet;

dadurch gekennzeichnet, dass

die Kontaktlinsenverpackung eine Umhüllung (14, 214, 314) umfasst, die mindestens eine Platte (30, 230, 330) enthält, wobei die Umhüllung (14, 214, 314) eine erste Platte (30, 230, 330) mit einer Klebefläche umfasst, wobei die Klebefläche an dem Versiegelungselement (16, 216, 316) haftet, wobei die erste Platte (30, 230, 330) ein proximales Ende (P) neben einem proximalen Ende der versiegelten Kontaktlinsenverpackung (12, 212, 312) und ein distales Ende (D) neben einem distalen Ende der versiegelten Kontaktlinsenverpackung (12, 212, 312) umfasst, eine zweite Platte (32, 232, 332), die sich von dem distalen Ende der ersten Platte erstreckt; und eine dritte Platte (34, 234, 334) mit einem proximalen Ende und einem distalen Ende, wobei das distale Ende an die zweite Platte angrenzt, und wobei das proximale Ende sowohl der dritten Platte als auch der ersten Platte eine proximale Endkante aufweist und die proximale Endkante der ersten Platte der Umhüllung die proximale Endkante der dritten Platte der Umhüllung überlagert;

und die erste Platte einen aktiven Klebebereich und einen passivierten Klebebereich aufweist, wobei der aktive Klebebereich im Wesentlichen die gesamte Oberfläche des Versiegelungselements überdeckt und der passivierte Klebebereich so beschaffen ist, dass er nicht haftet und in einem oder mehreren Bereichen um den Umfang des Versiegelungselements herum vorgesehen ist.

2. Verpackung nach Anspruch 1, ferner umfassend eine Schrumpfhülle (60, 1160), die an der versiegelten Kontaktlinsenverpackung haftet und sich um die Umhüllung erstreckt.

3. Verpackung nach einem der Ansprüche 1 bis 2, wobei das proximale Ende der dritten Platte und der ersten Platte jeweils eine proximale Endkante aufweist und die proximale Endkante der dritten Platte der Umhüllung mit der proximalen Endkante der ersten Platte der Umhüllung ausgerichtet ist.

4. Verpackung nach einem der Ansprüche 1 bis 2, wobei das proximale Ende der dritten Platte und der ersten Platte jeweils eine proximale Endkante aufweist und die proximale Endkante der dritten Platte der Umhüllung die proximale Endkante der ersten

Platte der Umhüllung überlagert.

5. Verpackung nach einem der Ansprüche 1 bis 2, wobei die Umhüllung ferner eine vierte Platte umfasst, die von der proximalen Kante der ersten Platte abfällt, und eine fünfte Platte umfasst, die mit der vierten Platte verbunden ist und eine distale Endkante aufweist, die sich proximal zu dem Hohlraum der versiegelten Kontaktlinsenverpackung befindet.

6. Verpackung nach einem der Ansprüche 1 bis 3, die eine Vielzahl von versiegelten Kontaktlinsenverpackungen umfasst, die in einer Reihe angeordnet sind und Perforationen im Versiegelungselement an einer Stelle aufweisen, die benachbarten Basiselementen entspricht; und wobei die Umhüllung eine Vielzahl von ersten Platten umfasst, die der Anzahl von versiegelten Kontaktlinsenverpackungen entsprechen, wobei jede erste Platte eine bedruckte Oberfläche mit der eindeutigen Gerätekennung sowohl in von Menschen lesbarer als auch in maschinenlesbarer Form umfasst.

7. Verpackung nach Anspruch 1, ferner umfassend ein Basiselement mit einem Schlitz zur Aufnahme eines proximalen Endes der versiegelten Kontaktlinsenpackung und eine Rückseite, die sich von dem Basiselement zu einem distalen Ende der versiegelten Kontaktlinsenpackung erstreckt.

8. Verpackung nach Anspruch 1, wobei die Umhüllung die erste Platte umfasst, die an dem Versiegelungselement der versiegelten Kontaktlinsenverpackung haftet, und die zweite Platte umfasst, die an der ersten Platte haftet und einen Hauptteil der ersten Platte im Wesentlichen überlagert, wobei die zweite Platte die bedruckte Oberfläche umfasst, die die eindeutige Gerätekennung sowohl in von Menschen lesbarer Form als auch in maschinenlesbarer Form umfasst.

9. Verfahren zur Herstellung einer Kontaktlinsenverpackung (10, 210, 310), umfassend:

Bereitstellen einer versiegelten Kontaktlinsenverpackung (12, 212, 312), wobei die versiegelte Kontaktlinsenverpackung ein Basiselement (18, 218, 318), ein Versiegelungselement (16, 216, 316), das mit dem Basiselement verbunden ist, um einen versiegelten Hohlraum bereitzustellen, und eine ungetragene Kontaktlinse, die in einer Kontaktlinsenverpackungslösung innerhalb des versiegelten Hohlraums bereitgestellt wird, umfasst;
und Bereitstellen mindestens einer Platte (30, 230, 330) für die versiegelte Kontaktlinsenverpackung (12, 212, 312), die eine bedruckte Oberfläche mit einer eindeutigen Gerätekennung (40, 240, 340) sowohl in von Menschen lesbarer Form (44, 244, 344) mit Zahlen oder Buchstaben oder Kombinationen davon als auch in maschinenlesbarer Form (42, 242, 342) mit einem Strichcode aufweist;
und wobei das Basiselement (18, 218, 318) ein thermoplastisches Material ist, das einen Hohlraum (20, 220, 320) und eine im Wesentlichen ebene Oberfläche aufweist, die den Hohlraum (20, 220, 320) umgibt, wobei die im Wesentlichen ebene Oberfläche eine Versiegelungsfläche für das Versiegelungselement (16, 216, 316) bereitstellt;
dadurch gekennzeichnet, dass
die Kontaktlinsenverpackung eine Umhüllung (14, 214, 314) umfasst, die die mindestens eine Platte (30, 230, 330) enthält, wobei die mindestens eine Platte (30, 230, 330) mit der versiegelten Kontaktlinsenverpackung (12, 212, 312) verbunden ist, indem die Umhüllung (14, 214, 314) an das Versiegelungselement (16, 216, 316) geklebt wird, und wobei die mindestens eine Platte eine erste Platte (30, 230, 330) ist, die ein proximales Ende neben einem proximalen Ende (P) der versiegelten Kontaktlinsenverpackung (30, 230, 330) und ein distales Ende (D) neben einem distalen Ende der versiegelten Kontaktlinsenverpackung (30, 230, 330) enthält, wobei eine zweite Platte (32, 232, 332) der Umhüllung (14, 214, 314) gefaltet wird, um sich von dem distalen Ende der ersten Platte (30, 230, 330) zu erstrecken; und Falten einer dritten Platte (34, 234, 334) der Umhüllung (14, 214, 314), wobei die dritte Platte (24, 234, 334) ein proximales Ende und ein distales Ende aufweist, so dass das distale Ende der dritten Platte (34, 234, 334) an die zweite Platte (32, 232, 332) angrenzt;
und die erste Platte (30, 230, 330) einen aktiven Klebebereich und einen passivierten Klebebereich aufweist, wobei der aktive Klebebereich im Wesentlichen die gesamte Oberfläche des Versiegelungselements (16, 216, 316) überdeckt und der passivierte Klebebereich so beschaffen ist, dass er nicht haftet und in einem oder mehreren Bereichen um den Umfang des Versiegelungselements (16, 216, 316) herum vorgesehen ist.

Revendications

1. Emballage pour lentille de contact (10, 210, 310) comprenant :

un emballage pour lentille de contact scellé (12, 212, 312), dans lequel l'emballage pour lentille de contact scellé (12, 212, 312) comporte un élément de base (18, 218, 318), et un élément

de scellement (16, 216, 316) couplé à l'élément de base (18, 218, 318) pour fournir une cavité scellée, et une lentille de contact non portée est fournie dans une solution d'emballage pour lentille de contact à l'intérieur de la cavité scellée ;
au moins un panneau (30, 230, 330) qui comprend une surface d'impression qui comprend un identifiant unique de dispositif (40, 240, 340) sous une forme lisible par l'homme (44, 244, 344) comprenant des chiffres ou des lettres, ou des combinaisons de ceux-ci, et une forme lisible par machine (42, 242, 342) comportant un code-barres ;
et l'élément de base (18, 218, 318) est un matériau thermoplastique comprenant une cavité (20, 220, 320) et une surface sensiblement plane entourant la cavité (20, 220, 320), ladite surface sensiblement plane fournissant une surface de scellement pour l'élément de scellement (16, 216, 316) ;
caractérisé en ce que
l'emballage pour lentille de contact comprend une enveloppe (14, 214, 314) comportant l'au moins un panneau (30, 230, 330), dans lequel l'enveloppe (14, 214, 314) comprend un premier panneau (30, 230, 330) ayant une surface adhésive, ladite surface adhésive adhérant à l'élément de scellement (16, 216, 316), ledit premier panneau (30, 230, 330) comportant une extrémité proximale (P) adjacente à une extrémité proximale dudit emballage pour lentille de contact scellé (12, 212, 312) et une extrémité distale (D) adjacente à une extrémité distale dudit emballage pour lentille de contact scellé (12, 212, 312), un deuxième panneau (32, 232, 332) s'étendant de ladite extrémité distale dudit premier panneau ; et un troisième panneau (34, 234, 334) comprenant une extrémité proximale et une extrémité distale et ladite extrémité distale étant adjacente audit deuxième panneau, et dans lequel l'extrémité proximale de chacun du troisième panneau et du premier panneau a un bord d'extrémité proximale, et le bord d'extrémité proximale du premier panneau de l'enveloppe recouvre le bord d'extrémité proximale du troisième panneau de l'enveloppe ;
et le premier panneau a une région adhésive active et une région adhésive amortie, la région adhésive active recouvre sensiblement toute la surface de l'élément de scellement, et la région adhésive amortie est produite de manière à ne pas adhérer et est prévue dans une ou plusieurs régions autour du périmètre de l'élément de scellement.

2. Emballage selon la revendication 1, comprenant en outre un manchon rétractable (60, 1160) s'étendant autour de l'enveloppe adhérée à l'emballage pour lentille de contact.

3. Emballage selon l'une quelconque des revendications 1 et 2, dans lequel l'extrémité proximale de chacun du troisième panneau et du premier panneau a un bord d'extrémité proximale, et le bord d'extrémité proximale du troisième panneau de l'enveloppe est aligné avec le bord d'extrémité proximale du premier panneau de l'enveloppe.

4. Emballage selon l'une quelconque des revendications 1 et 2, dans lequel l'extrémité proximale de chacun du troisième panneau et du premier panneau a un bord d'extrémité proximale, et le bord d'extrémité proximale du troisième panneau de l'enveloppe recouvre le bord d'extrémité proximale du premier panneau de l'enveloppe.

5. Emballage selon l'une quelconque des revendications 1 et 2, dans lequel l'enveloppe comprend en outre un quatrième panneau descendant du bord proximal du premier panneau, et un cinquième panneau relié au quatrième panneau et ayant un bord d'extrémité distale situé à proximité de la cavité de l'emballage pour lentille de contact scellé.

6. Emballage selon l'une quelconque des revendications 1 à 3, comprenant une pluralité d'emballages de lentilles de contact scellés agencés en un réseau et ayant des perforations dans l'élément de scellement à un emplacement correspondant aux éléments de base adjacents ; et dans lequel l'enveloppe comporte une pluralité de premiers panneaux correspondant au nombre d'emballages pour lentilles de contact scellés, chaque premier panneau comportant une surface imprimée avec l'identifiant unique de dispositif à la fois sous forme lisible par l'homme et sous forme lisible par machine.

7. Emballage selon la revendication 1, comprenant en outre un élément de base comportant une fente pour recevoir une extrémité proximale de l'emballage pour lentille de contact scellé ; et une surface arrière s'étendant de l'élément de base vers une extrémité distale de l'emballage pour lentille de contact scellé.

8. Emballage selon la revendication 1, dans lequel l'enveloppe comprend le premier panneau adhéré à l'élément de scellement de l'emballage pour lentille de contact scellé, et le deuxième panneau adhéré au premier panneau et recouvrant sensiblement une partie majeure du premier panneau, le deuxième panneau comportant la surface imprimée qui comprend l'identifiant unique de dispositif à la fois sous forme lisible par l'homme et sous forme lisible par machine.

9. Procédé de fabrication d'un emballage pour lentille

de contact (10, 210, 310) comprenant :

la fourniture d'un emballage pour lentille de contact scellé (12, 212, 312), ledit emballage pour lentille de contact scellé comprenant un élément de base (18, 218, 318), un élément de scellement (16, 216, 316) couplé à l'élément de base pour fournir une cavité scellée, et une lentille de contact non portée fournie dans une solution d'emballage pour lentille de contact à l'intérieur de la cavité scellée ;
et la fourniture d'au moins un panneau (30, 230, 330) pour l'emballage pour lentille de contact scellé (12, 212, 312) qui comporte une surface imprimée comprenant un identifiant unique de dispositif (40, 240, 340) à la fois sous forme lisible par l'homme (44, 244, 344) comprenant des chiffres, ou des lettres, ou des combinaisons de ceux-ci, et sous forme lisible par machine (42, 242, 342) comprenant un code à barres ;
et dans lequel l'élément de base (18, 218, 318) est un matériau thermoplastique comprenant une cavité (20, 220, 320) et une surface sensiblement plane entourant la cavité (20, 220, 320), ladite surface sensiblement plane fournissant une surface de scellement pour l'élément de scellement (16, 216, 316) ;
caractérisé en e que
l'emballage pour lentille de contact comprend une enveloppe (14, 214, 314) comportant l'au moins un panneau (30, 230, 330), l'au moins un panneau (30, 230, 330) couplé à l'emballage pour lentille de contact scellé (12, 212, 312) en faisant adhérer l'enveloppe (14, 214, 314) à l'élément de scellement (16, 216, 316), et dans lequel ledit au moins un panneau est un premier panneau (30, 230, 330) comportant une extrémité proximale adjacente à une extrémité proximale (P) dudit emballage pour lentille de contact scellé (30, 230, 330) et à une extrémité distale (D) adjacente à une extrémité distale dudit emballage pour lentille de contact scellé (30, 230, 330) pliant un deuxième panneau (32, 232, 332) de l'enveloppe (14, 214, 314) pour s'étendre de ladite extrémité distale dudit premier panneau (30, 230, 330) ; et pliant un troisième panneau (34, 234, 334) de l'enveloppe (14, 214, 314), ledit troisième panneau (24, 234, 334) comportant une extrémité proximale et une extrémité distale de sorte que ladite extrémité distale du troisième panneau (34, 234, 334) soit adjacente audit deuxième panneau (32, 232, 332) ;
et le premier panneau (30, 230, 330) a une région adhésive active et une région adhésive amortie, la région adhésive active recouvre sensiblement toute la surface de l'élément de scellement (16, 216, 316), et la région adhésive amortie est produite de manière à ne pas adhérer et est prévue dans une ou plusieurs régions autour du périmètre de l'élément de scellement (16, 216, 316).

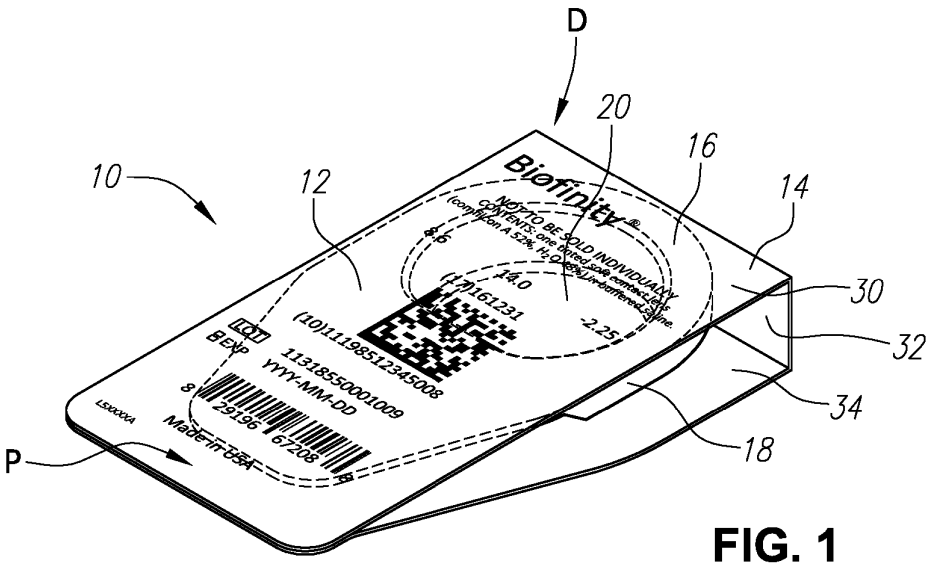

FIG. 1

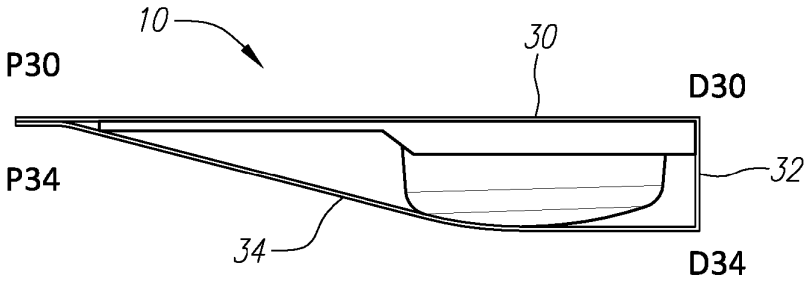

FIG. 2

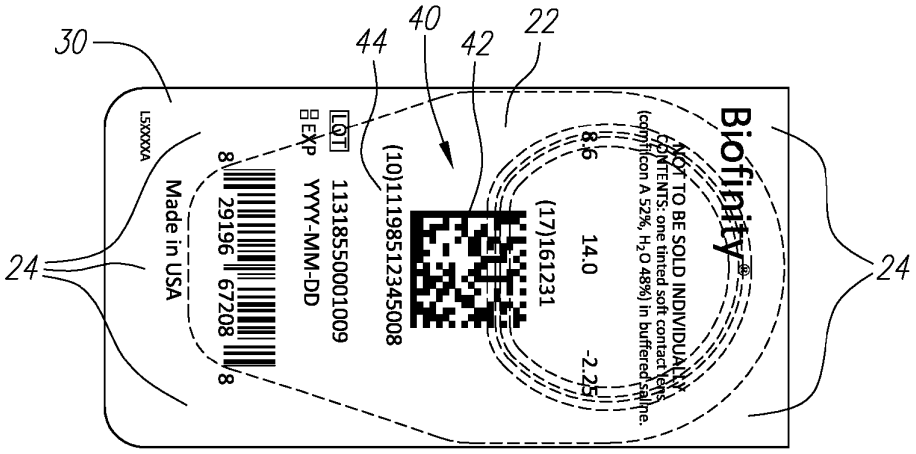

FIG. 3

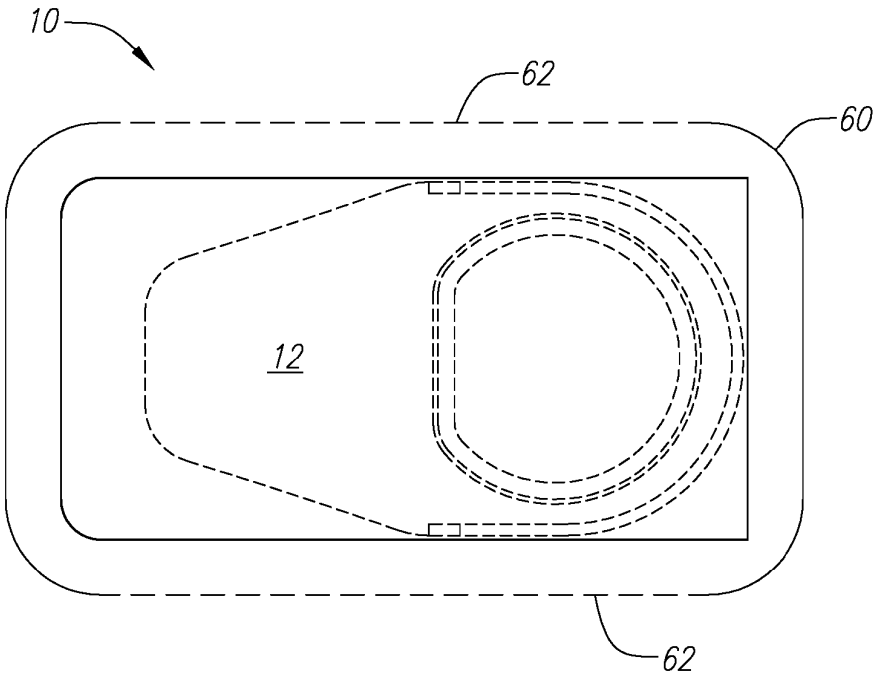

FIG. 4

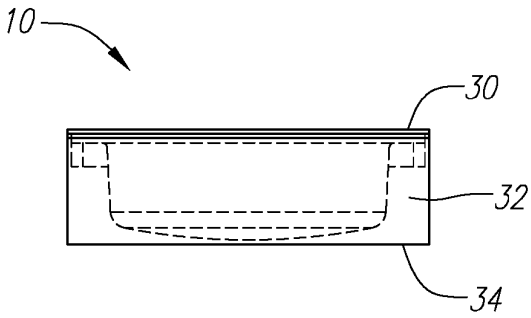

FIG. 5

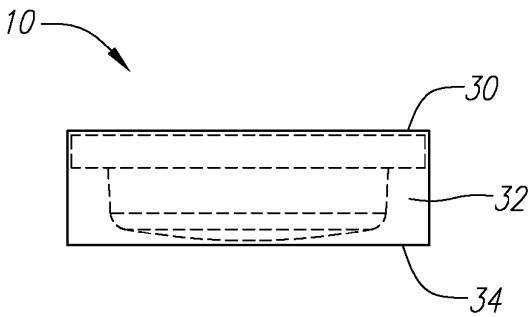

FIG. 6

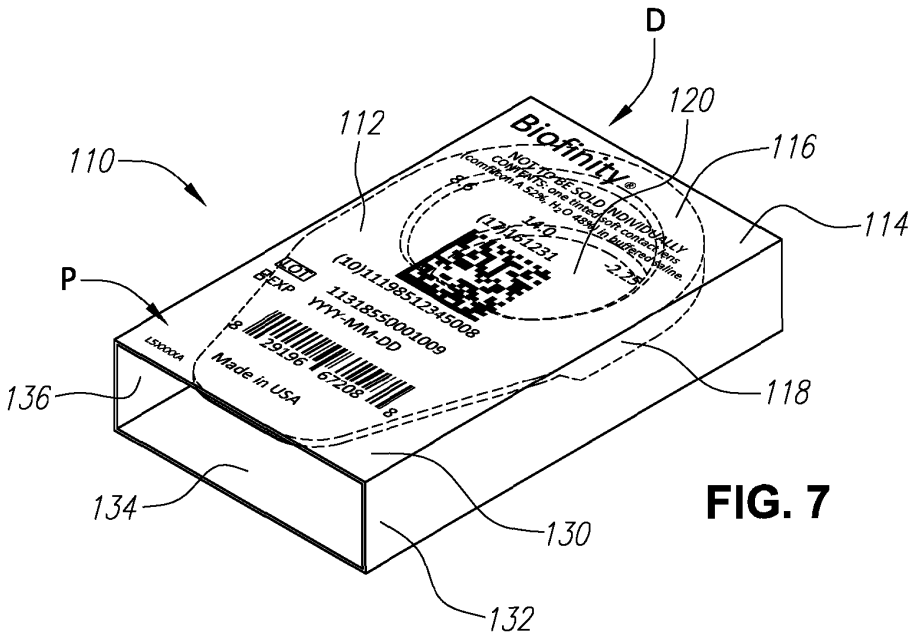

FIG. 7

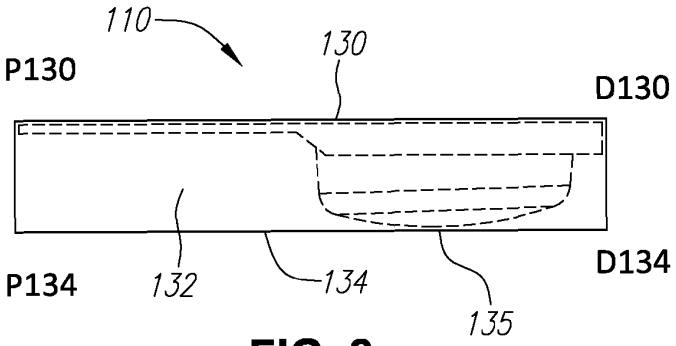

FIG. 8

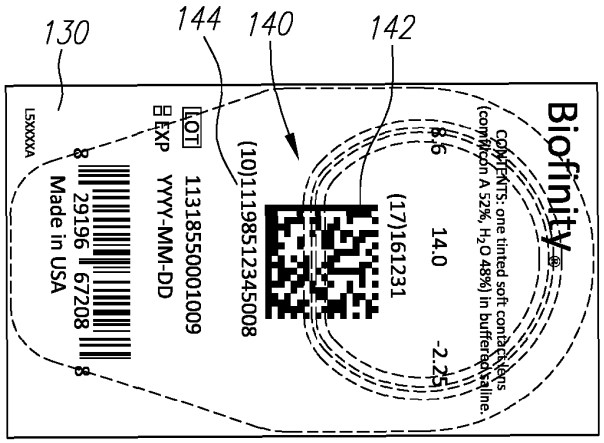

FIG. 9

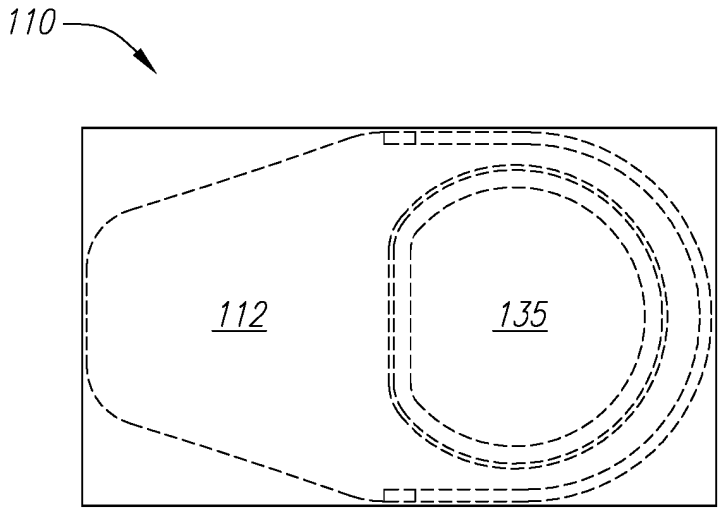

FIG. 10

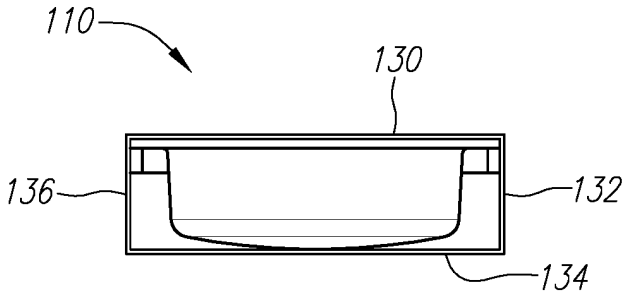

FIG. 11

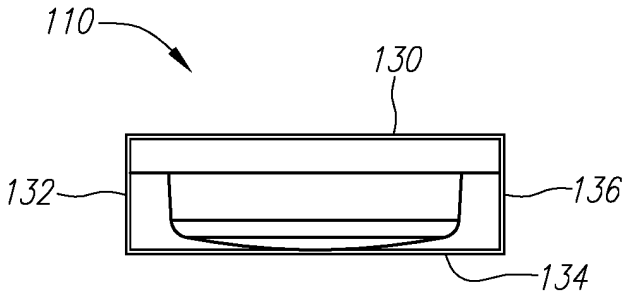

FIG. 12

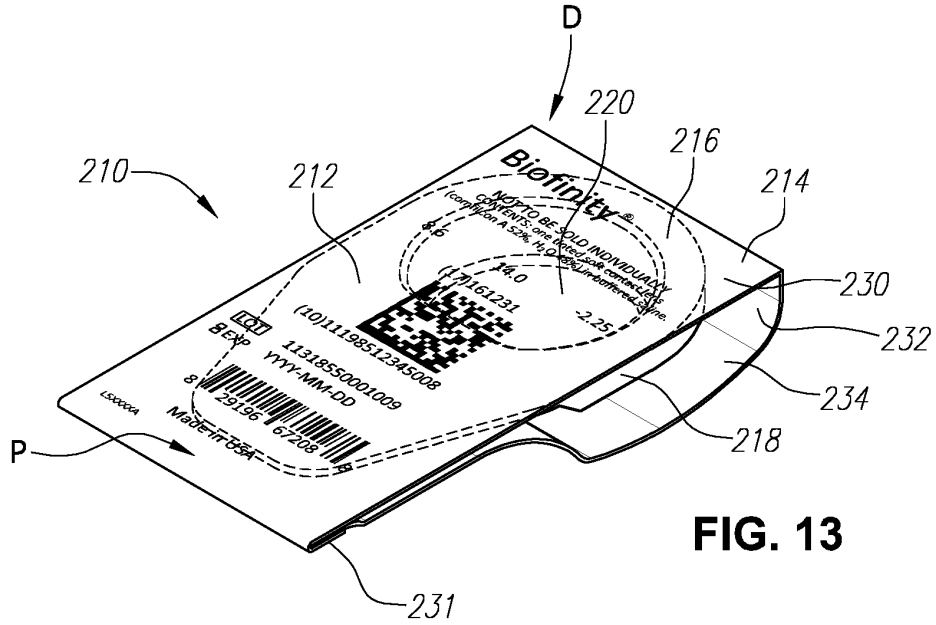

FIG. 13

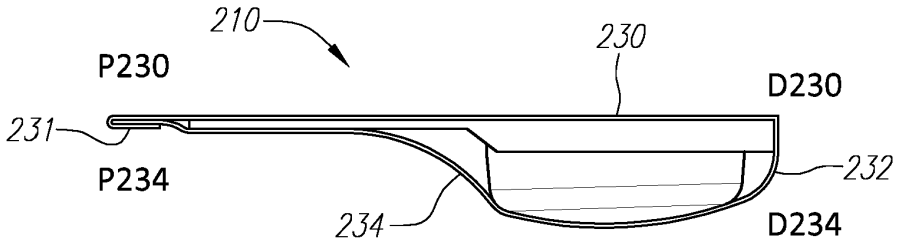

FIG. 14

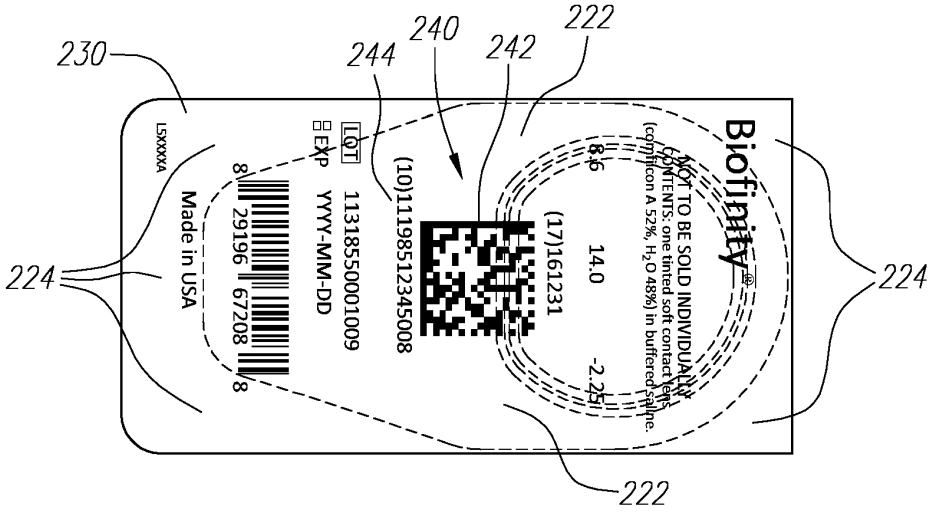

FIG. 15

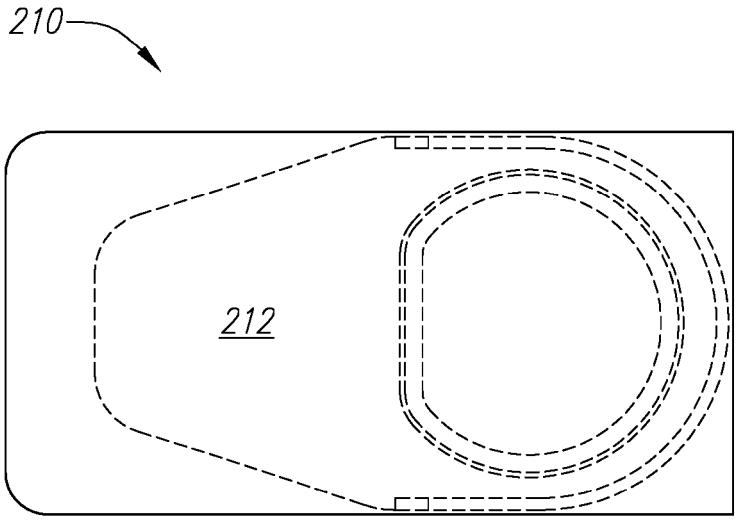

FIG. 16

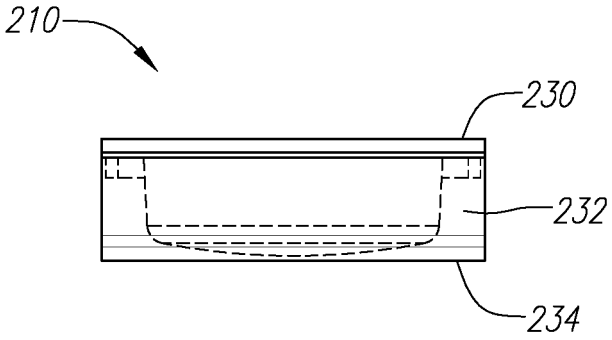

FIG. 17

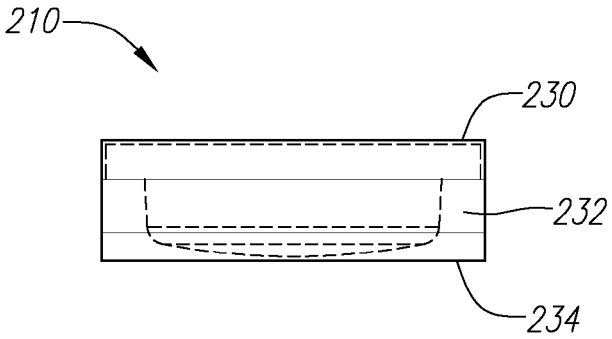

FIG. 18

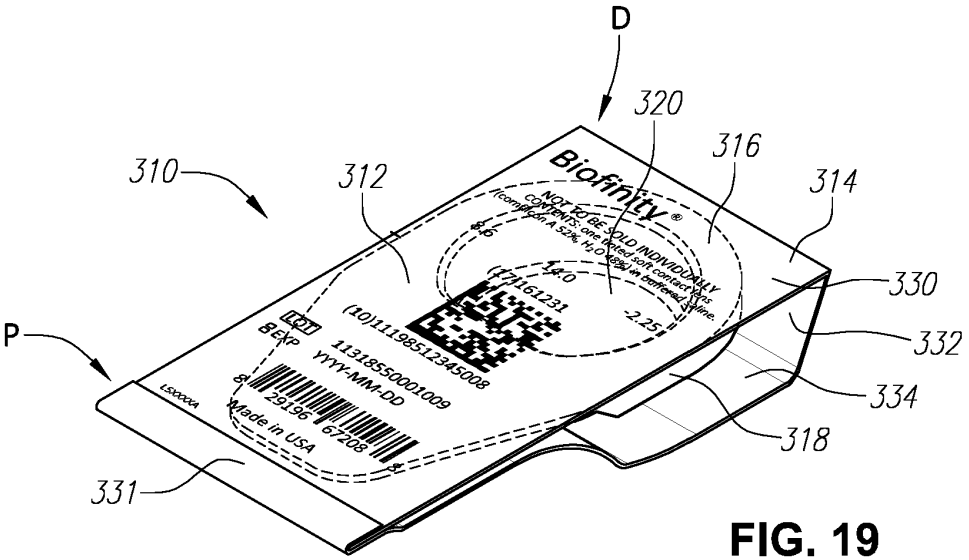

FIG. 19

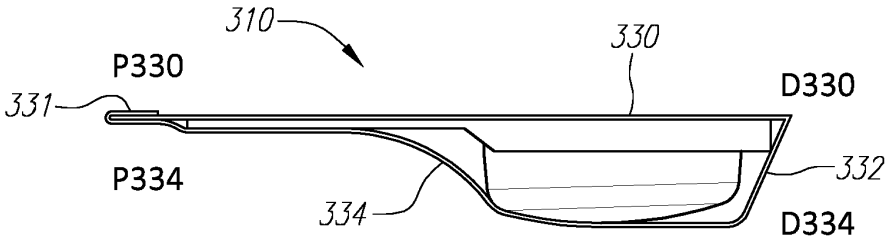

FIG. 20

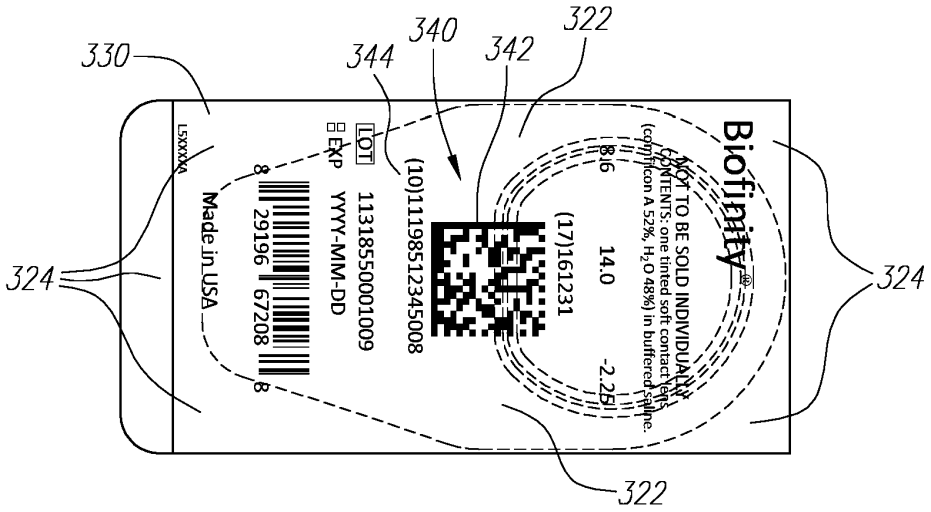

FIG. 21

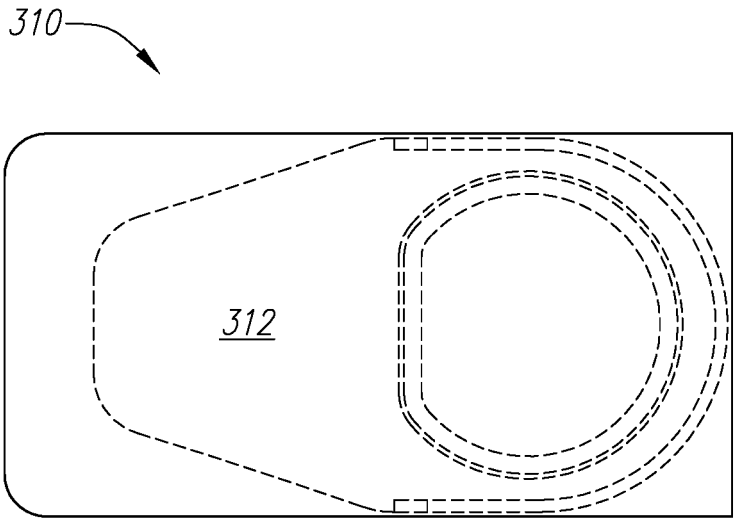

FIG. 22

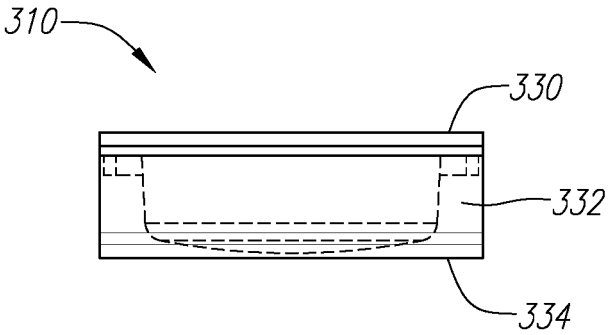

FIG. 23

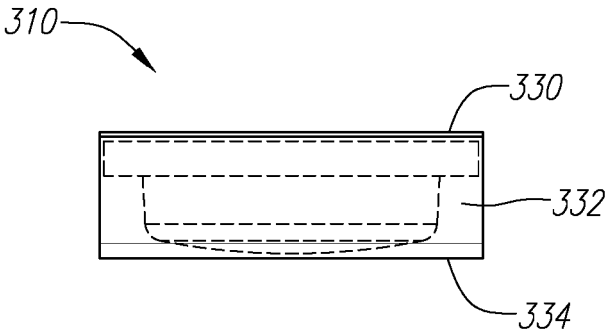

FIG. 24

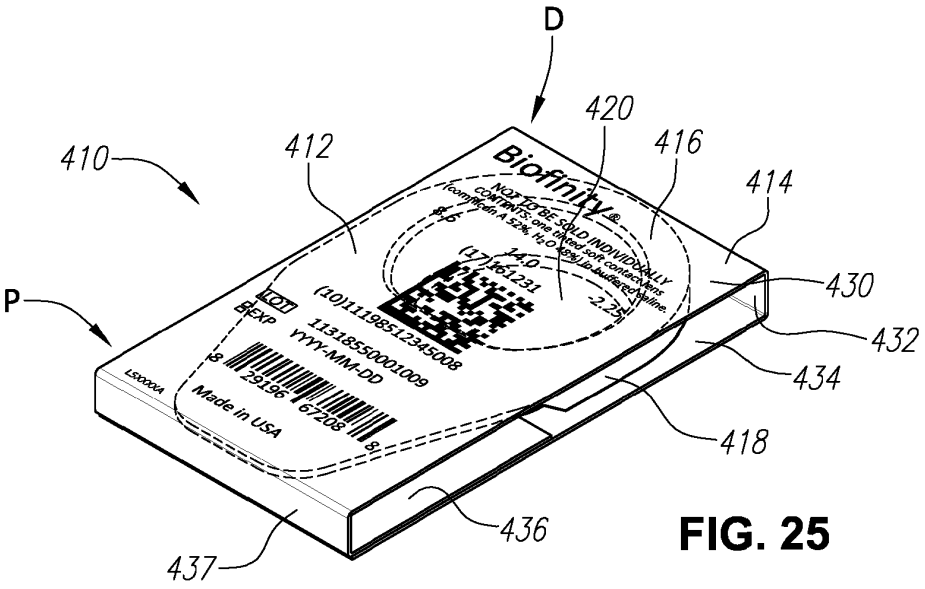

FIG. 25

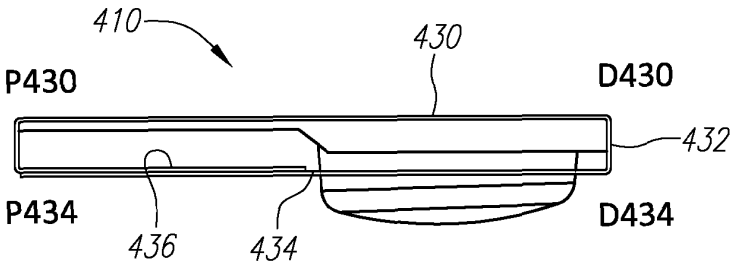

FIG. 26

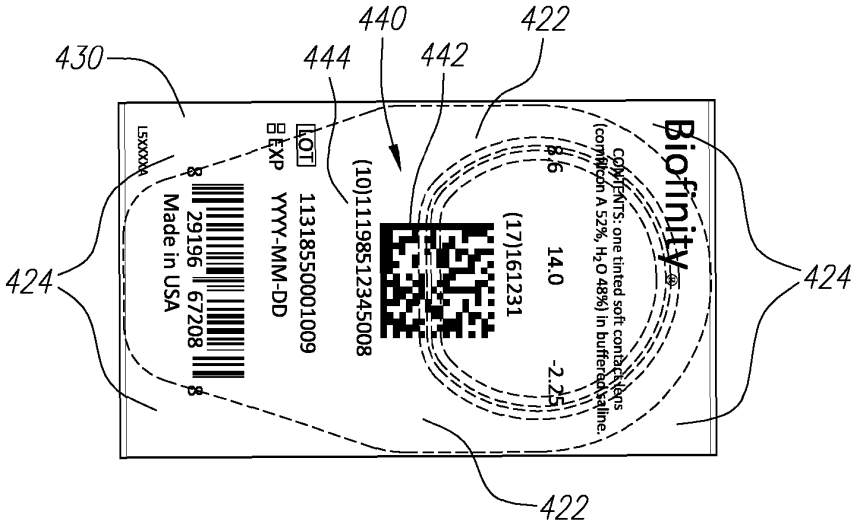

FIG. 27

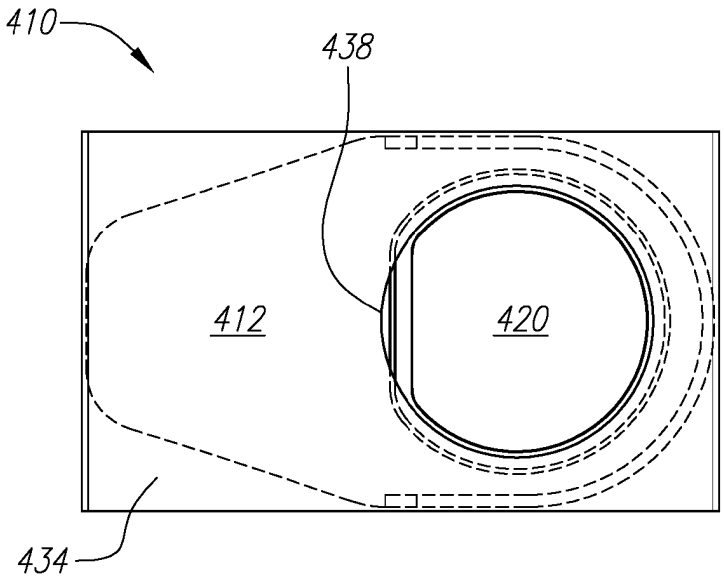

FIG. 28

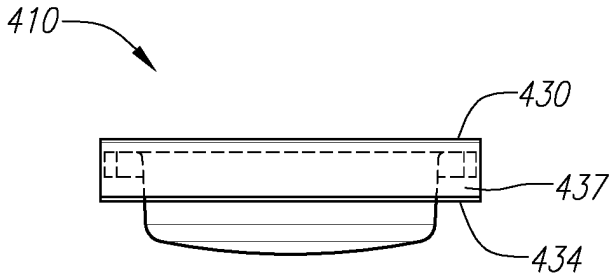

FIG. 29

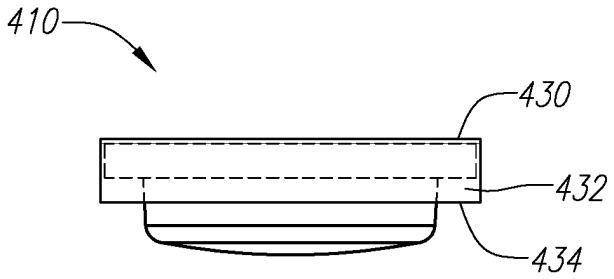

FIG. 30

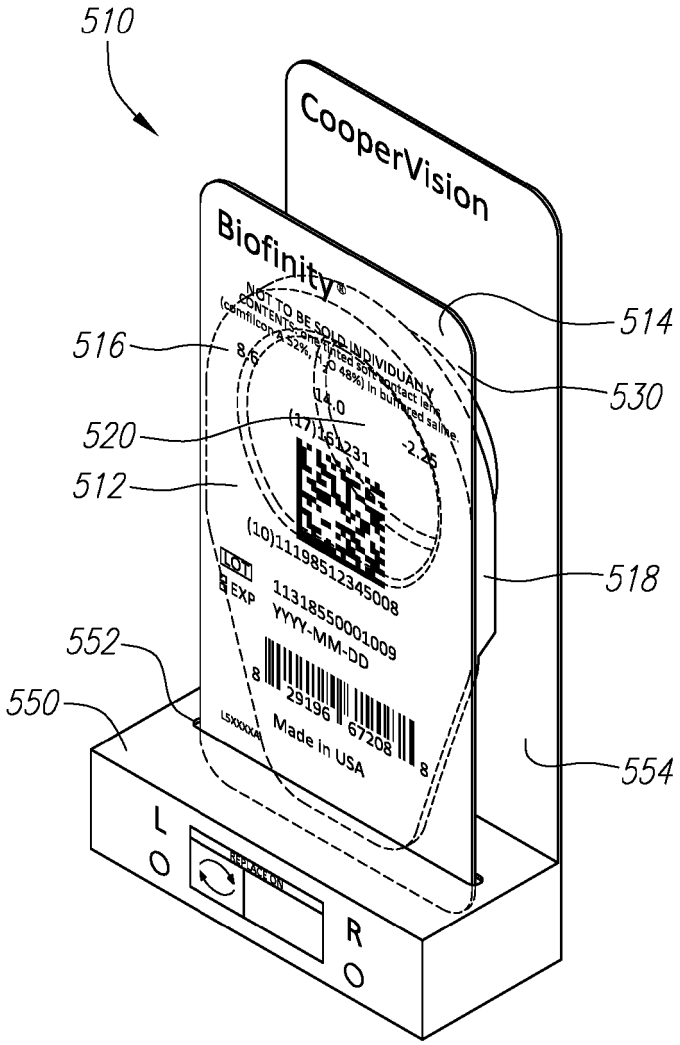
510
CooperVision
Biofinity®
NOT TO BE SOLD INDIVIDUALLY
CONTENTS: Comfilcon A 52%, H2O 48% in buffered saline
8.6
14.0
(17)161231
-2.25
(10)11198512345008
LOT
EXP
1131855001009
YYYY-MM-DD
29196 67208
Made in USA
514
516
530
520
512
518
552
550
554
L
O
R
O

FIG. 31

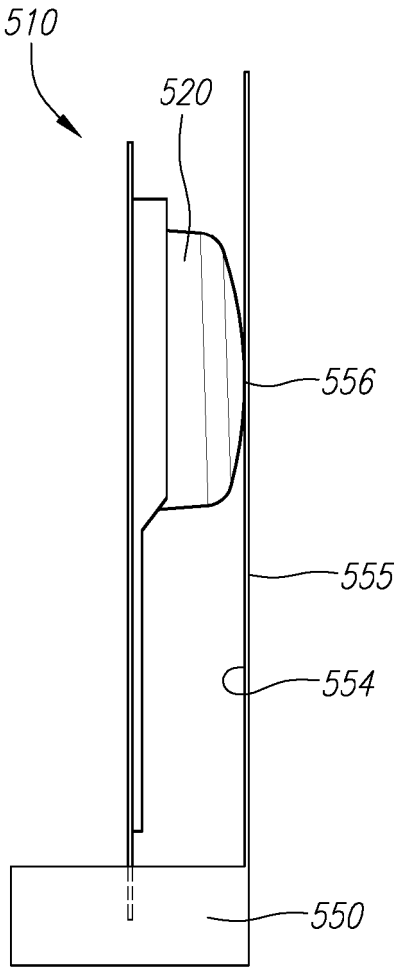
510
520
556
555
554
550

FIG. 32

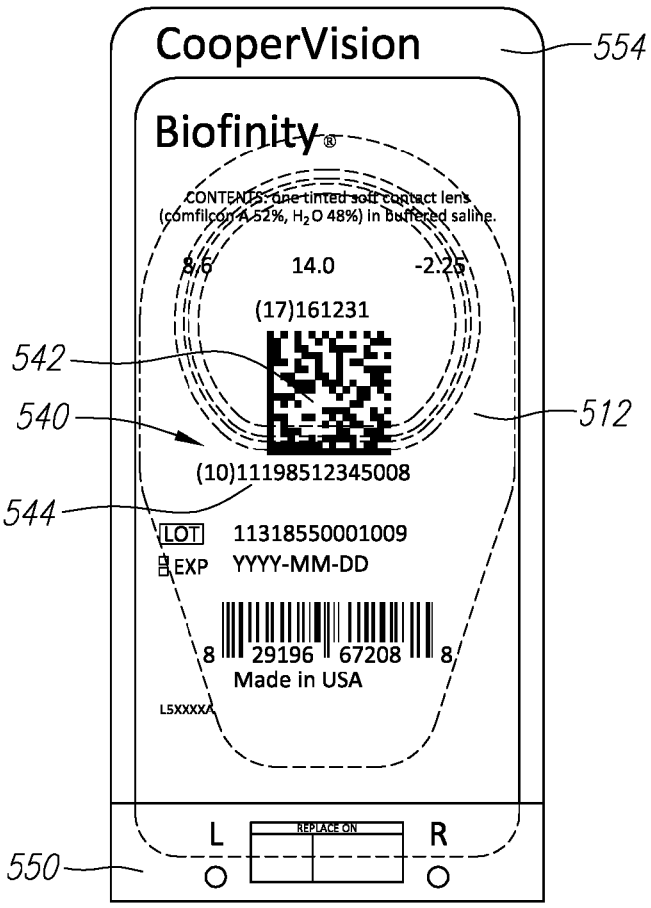

FIG. 33

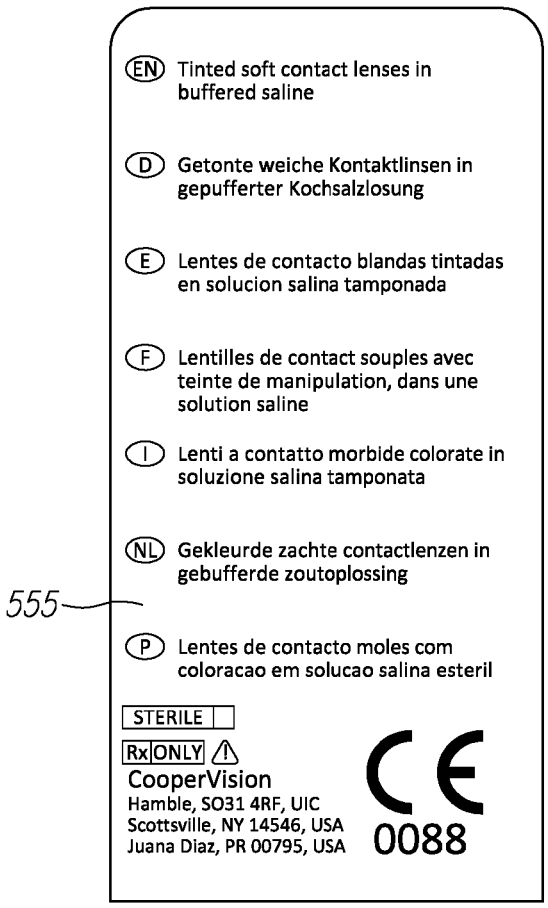

FIG. 34

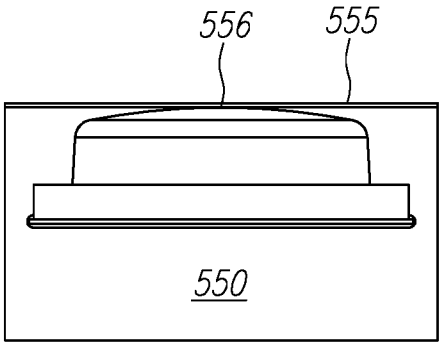

FIG. 35

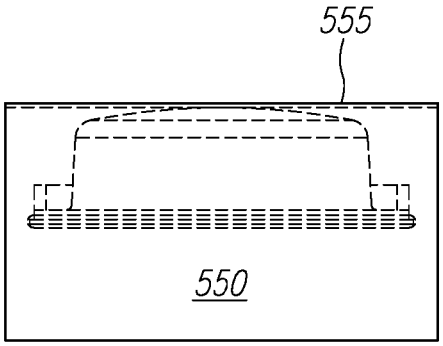

FIG. 36

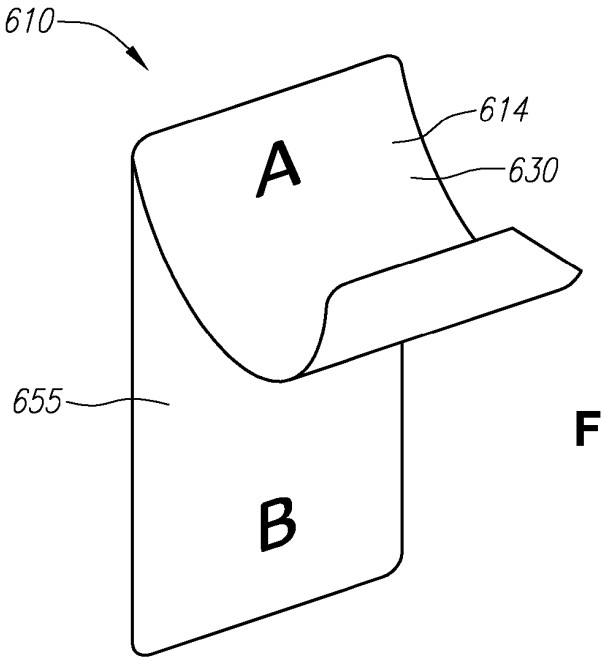

FIG. 37

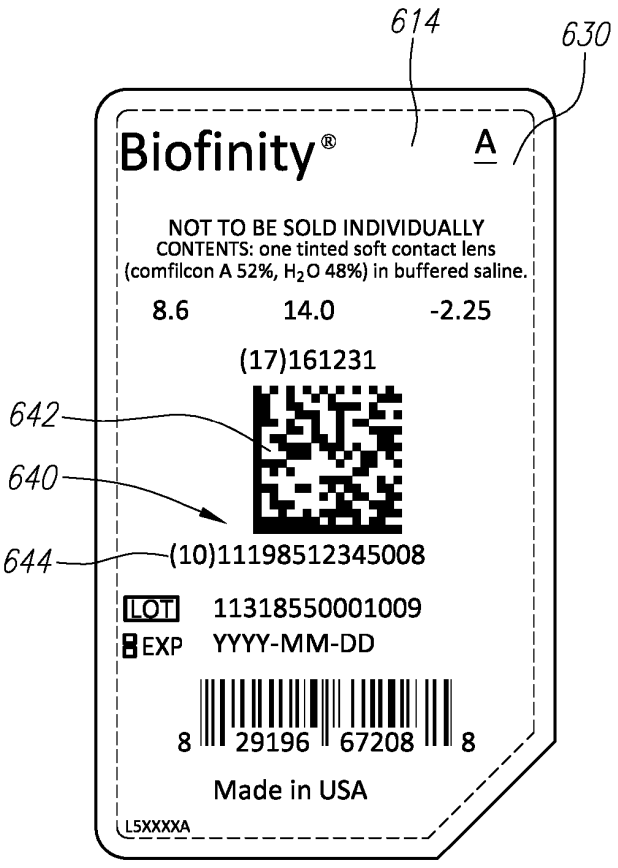

FIG. 38

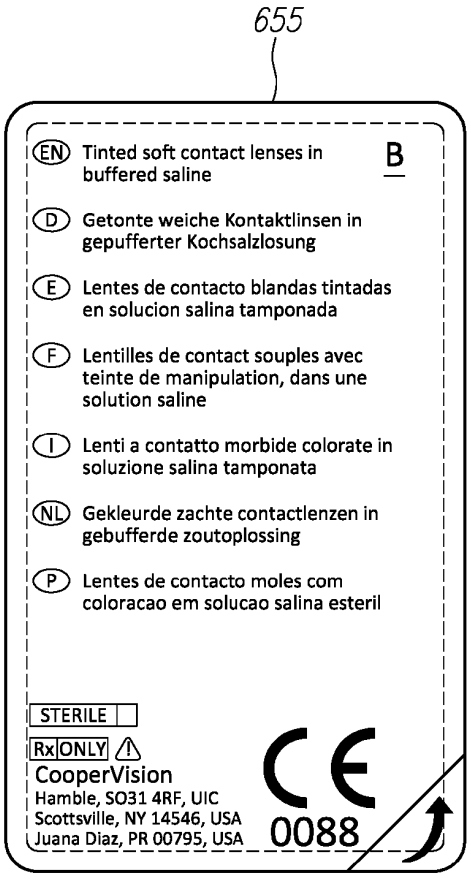

FIG. 39

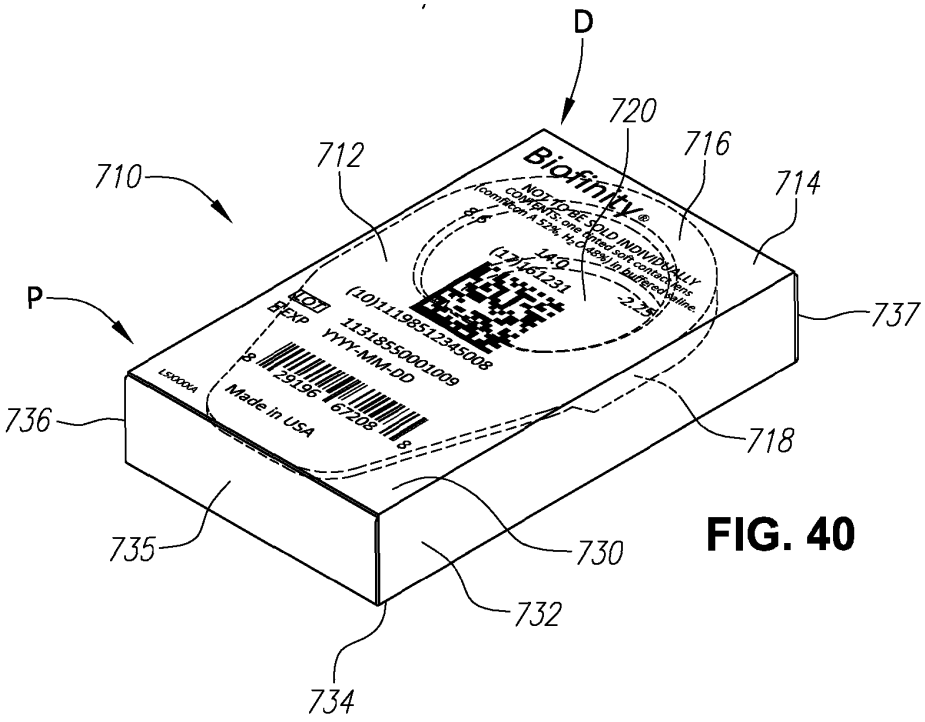

FIG. 40

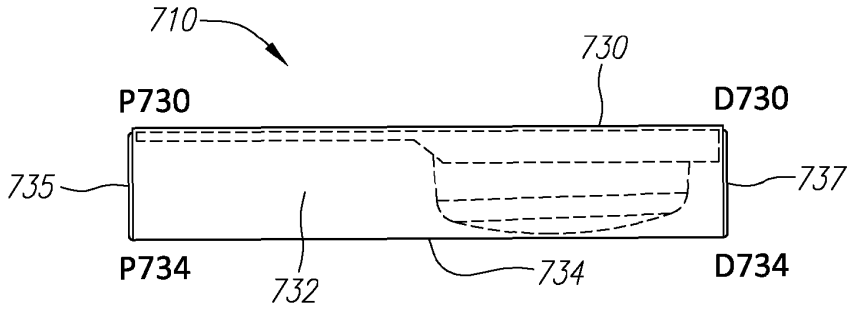

FIG. 41

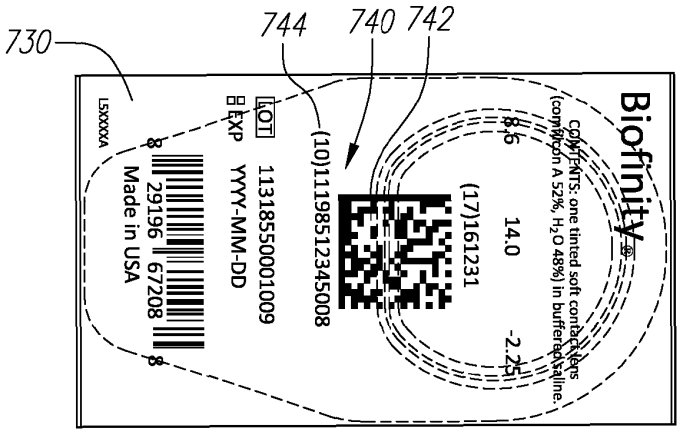

FIG. 42

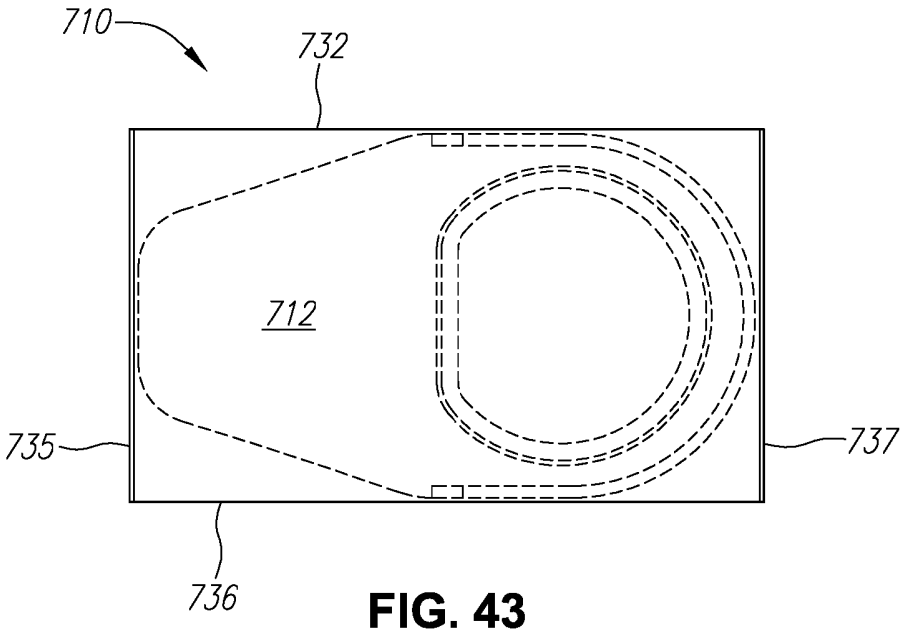

FIG. 43

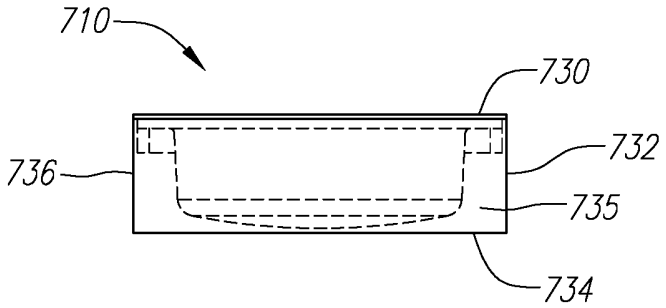

FIG. 44

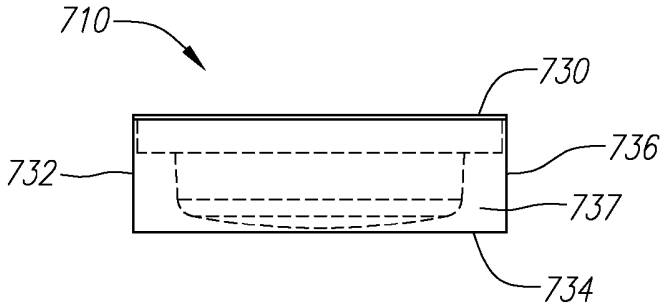

FIG. 45

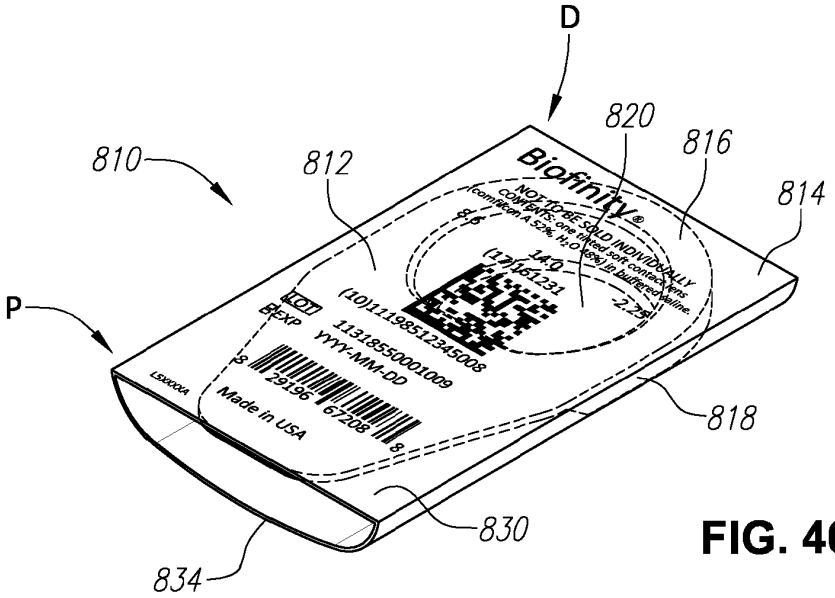

FIG. 46

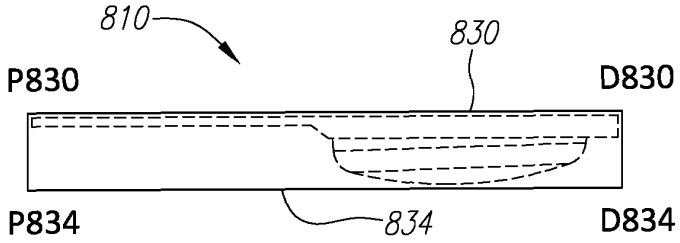

FIG. 47

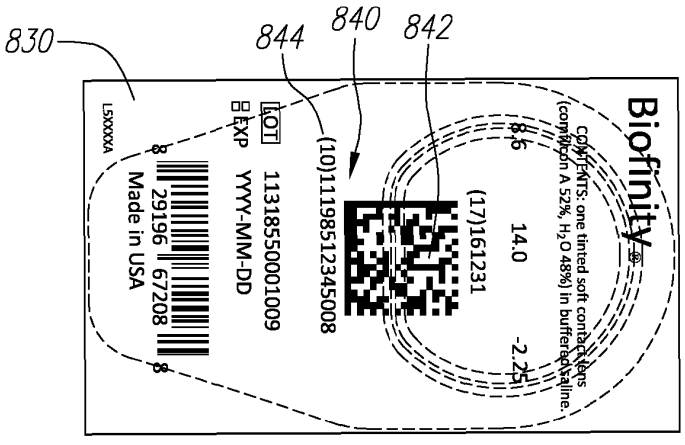

FIG. 48

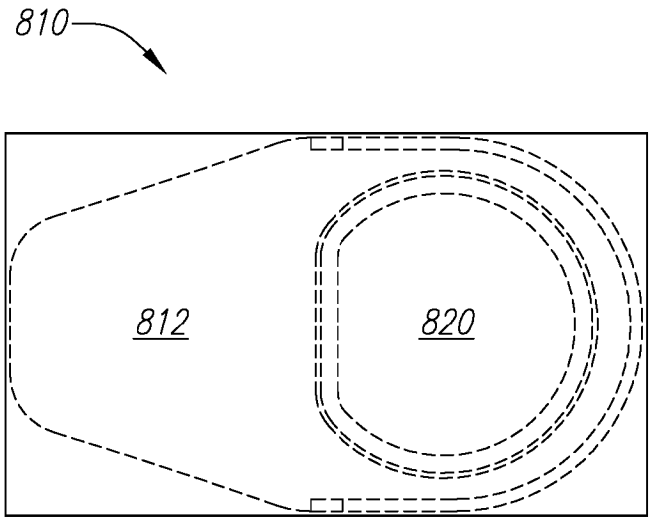

FIG. 49

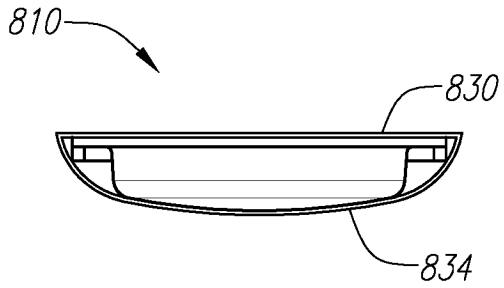

FIG. 50

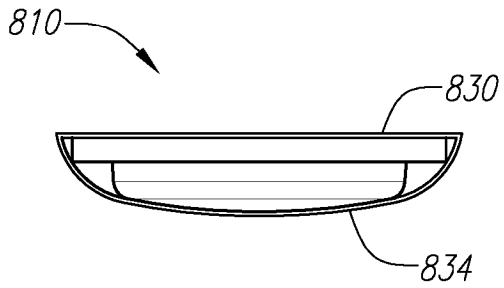

FIG. 51

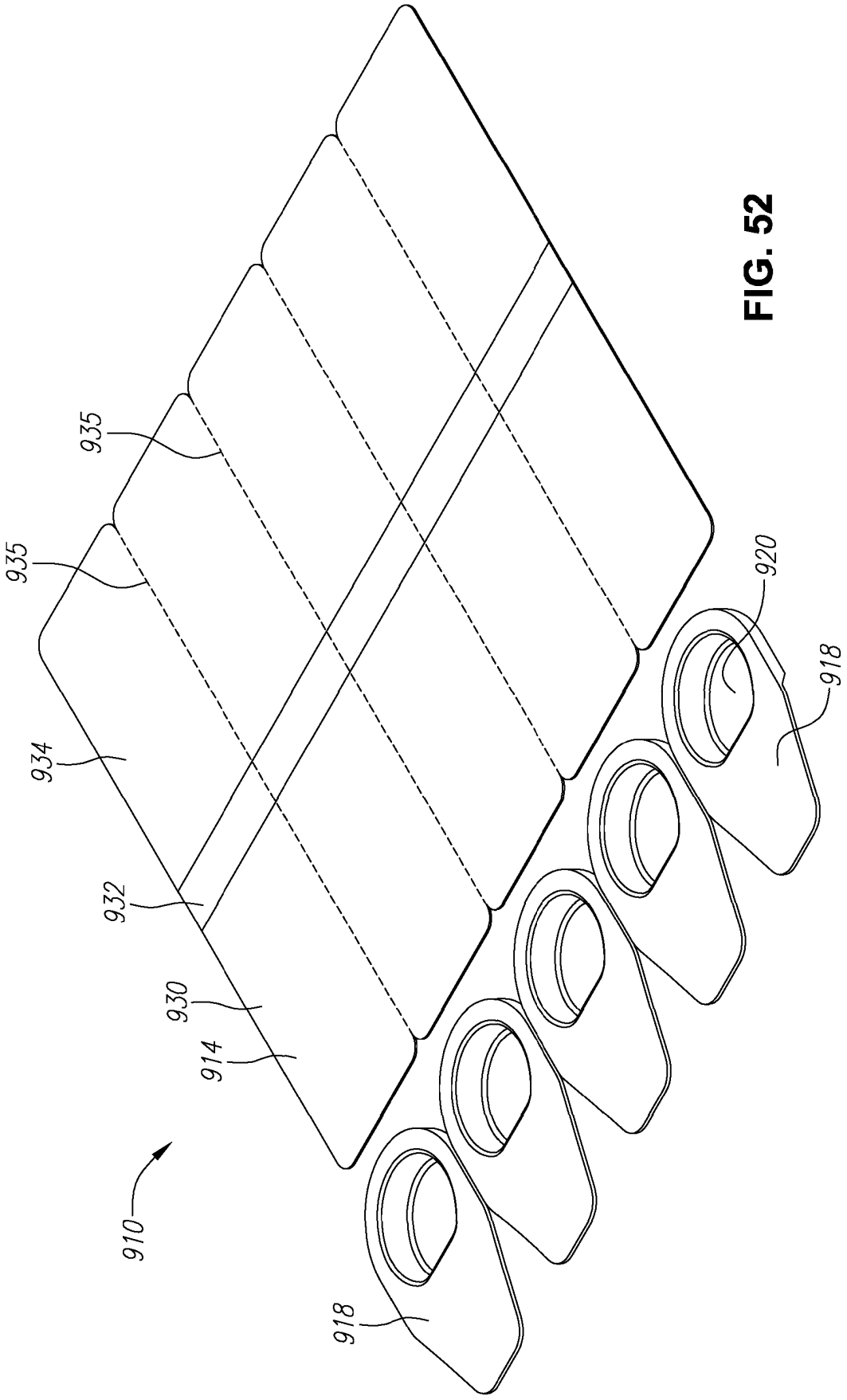

FIG. 52

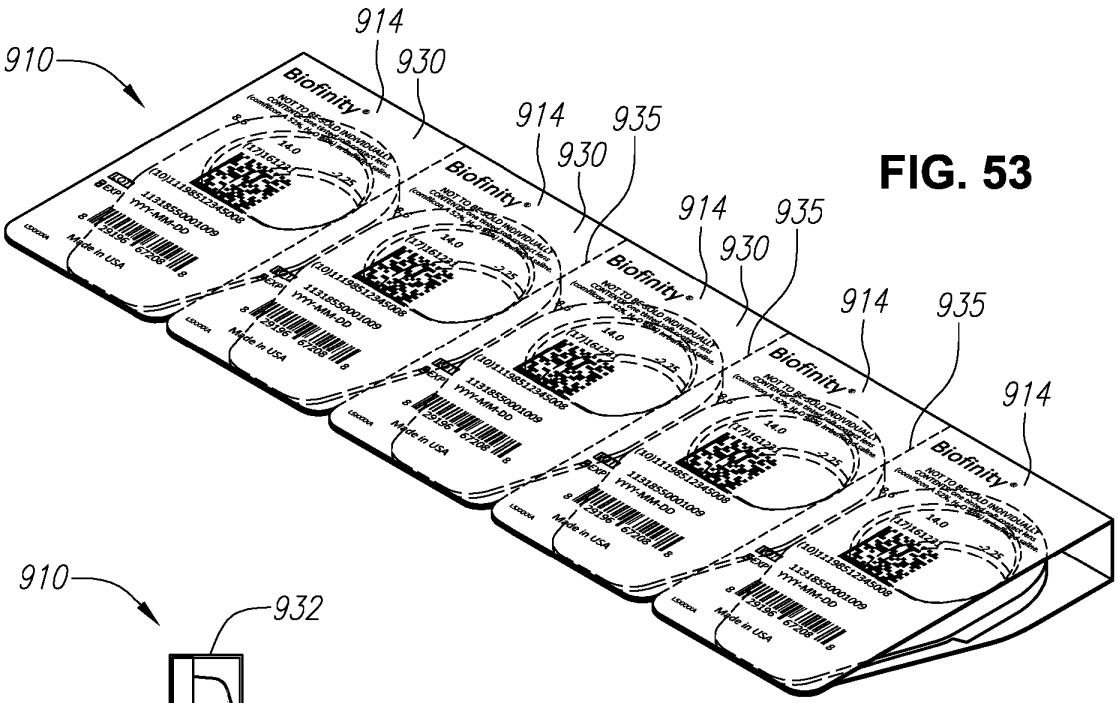

FIG. 53

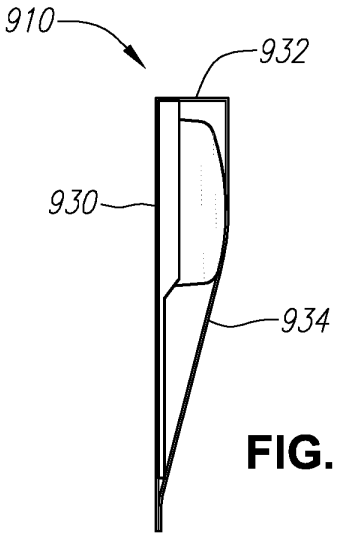

FIG. 54

FIG. 55

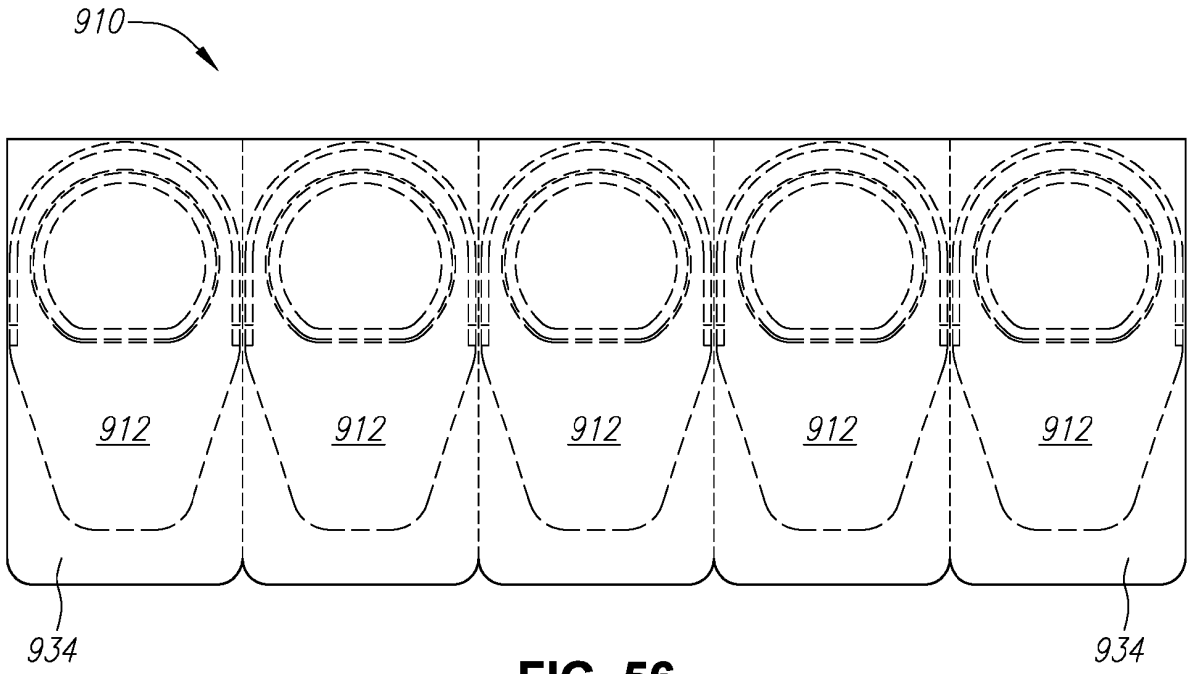

FIG. 56

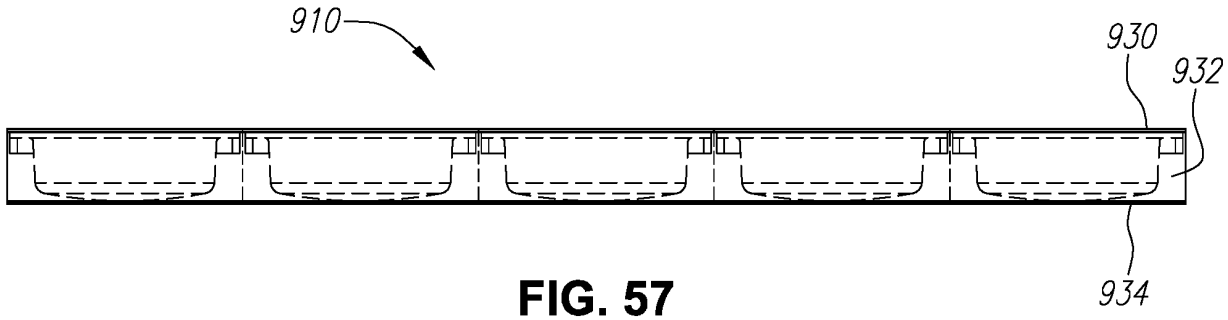

FIG. 57

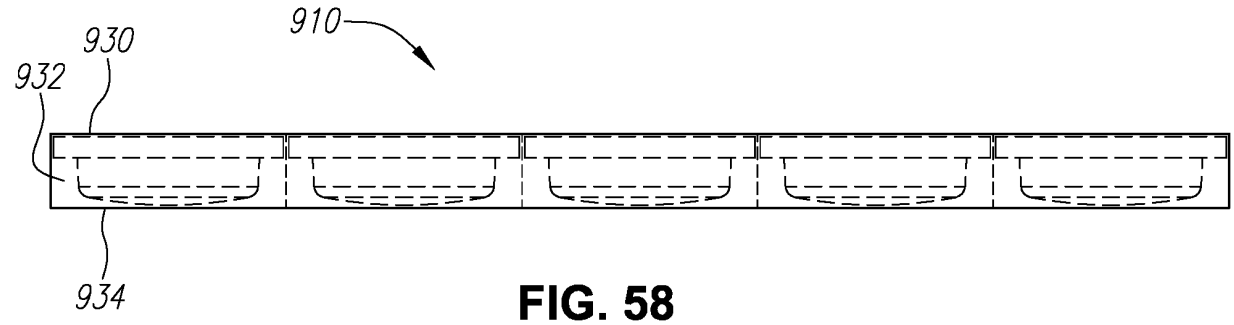

FIG. 58

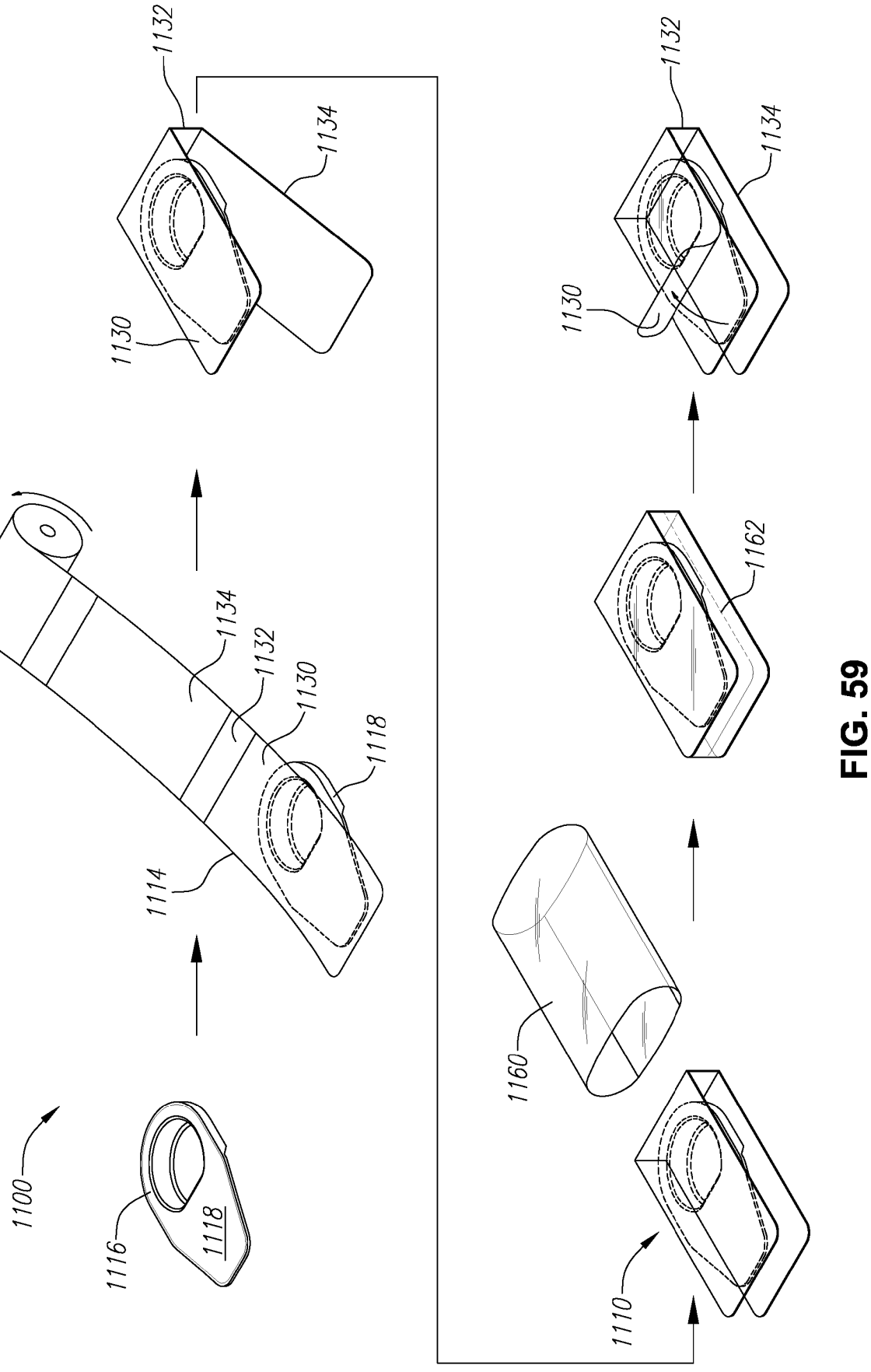
1100
1116
1118
1114
1134
1132
1130
1118
1132
1134
1130
1160
1162
1132
1134
1130
1110

FIG. 59

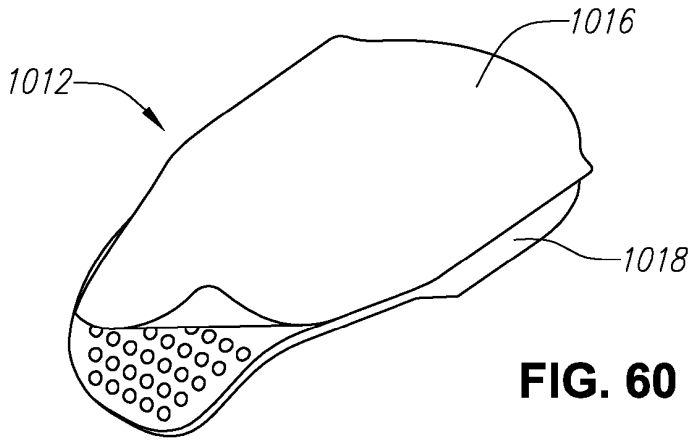

FIG. 60

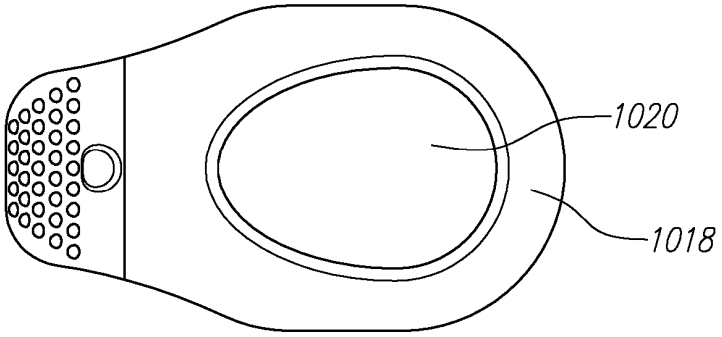

FIG. 61

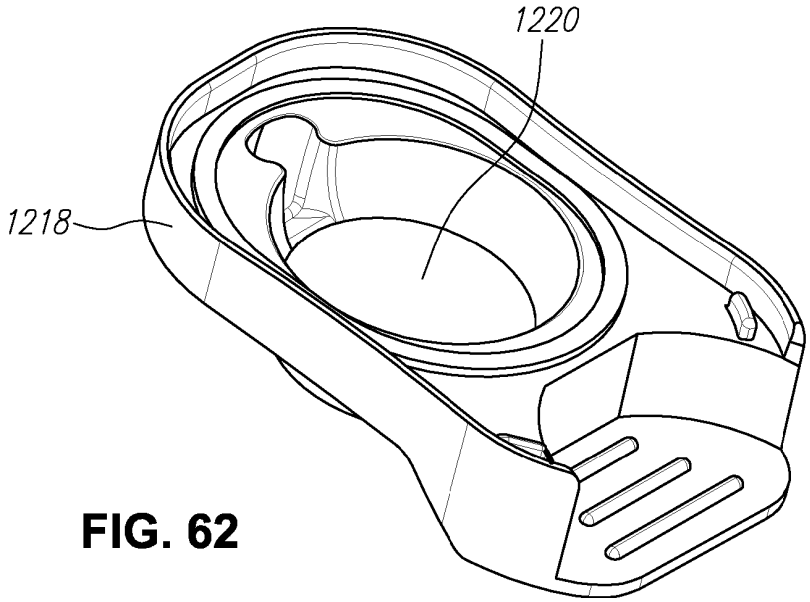

FIG. 62

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- WO 2013109187 A **[0005]**
- WO 2004004930 A **[0006]**
- US 5743402 A **[0007]**
- EP 1270441 A **[0008]**
- US 2013255195 A **[0009]**
- JP 2007246102 A **[0009]**
- US 6398018 B **[0018]**
- US 7426993 B **[0018]**
- US 7477366 B **[0018]**
- US 20120061260 A **[0018]**
- WO 2013160667 A **[0018]**