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Tingey et al.

(43) **Pub. Date: Dec. 16, 2004**(54) **STORAGE AND DISPLAY PACKAGE FOR CONTAINING LIGHT AND MOISTURE PROTECTED ARTICLES THEREIN**

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(57) **ABSTRACT**

A storage and display package has a display member with partially overlapping panels, a reusable article container attachable to the display panel and a wrap for securing the reusable article container to the panel. Flange portions on the wrap are snugly wedged between the partially overlapping panels on the display member. Latching members formed on the reusable article container and lid and a release latch enable easy opening and closing of the reusable article container for accessing and securing the article therein.

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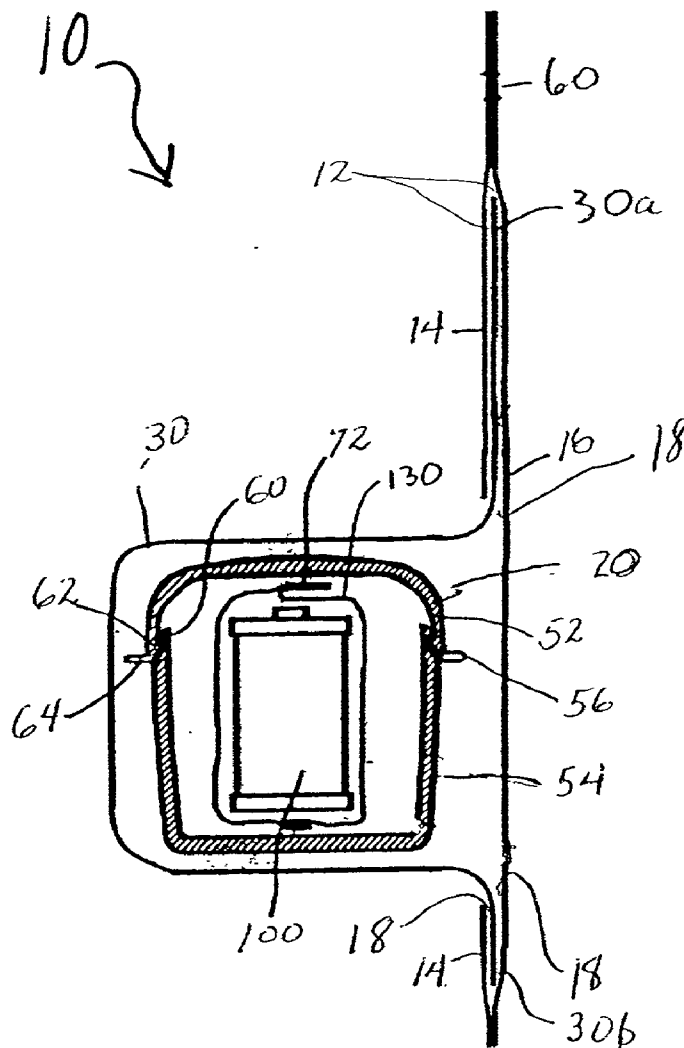
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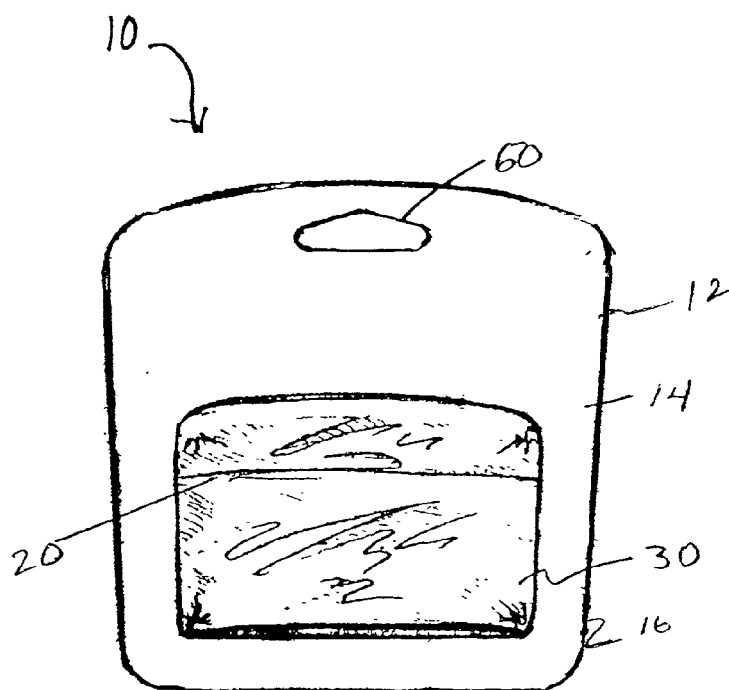


FIG. 1

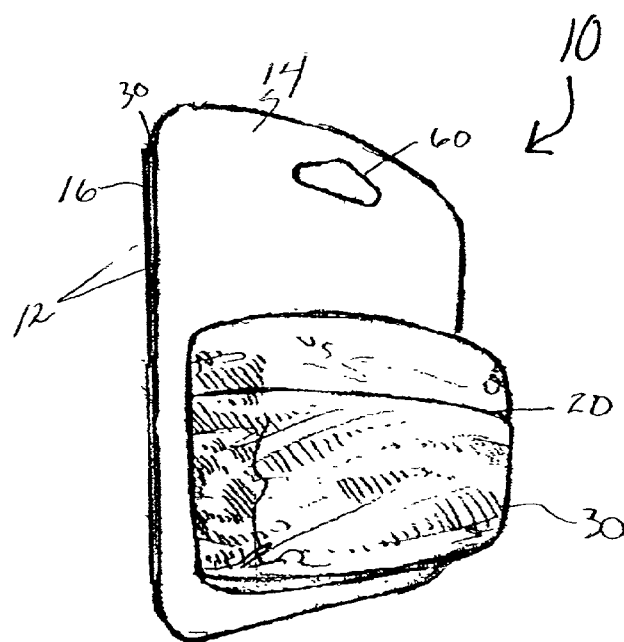


FIG. 2

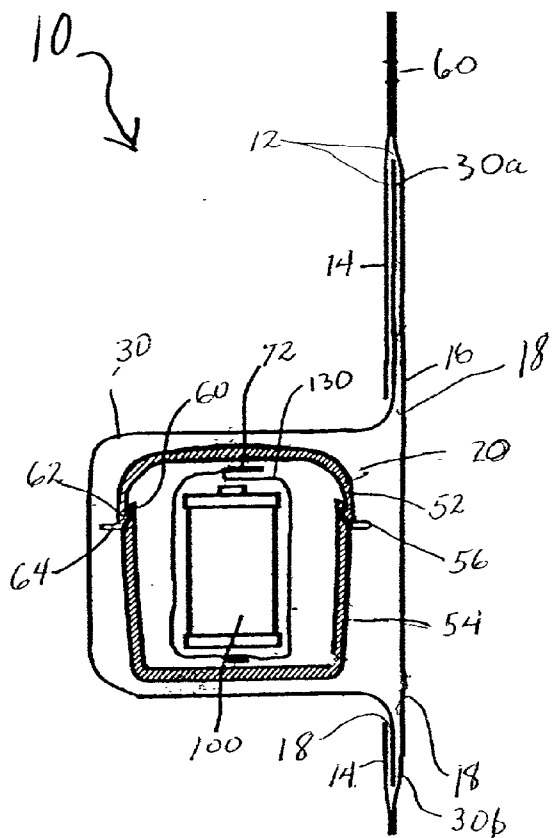


FIG. 3

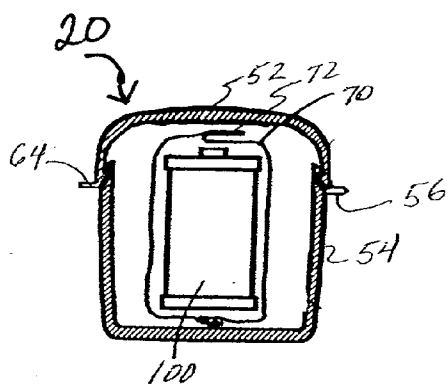


FIG. 4

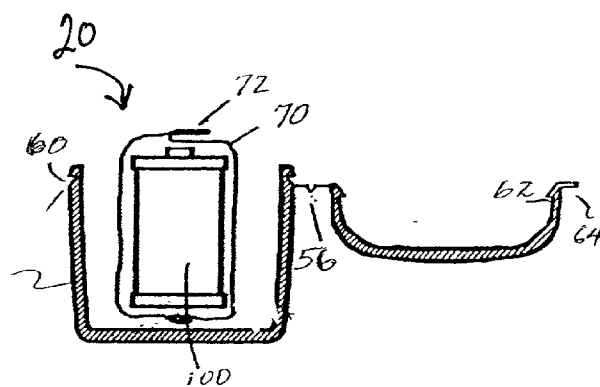


FIG. 5

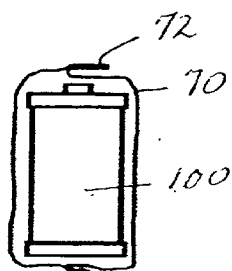


FIG. 6.

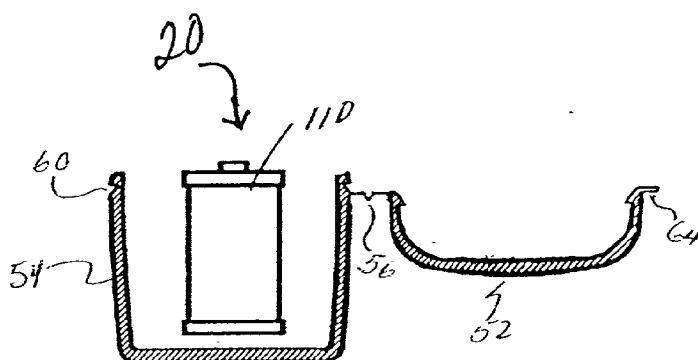


FIG. 7

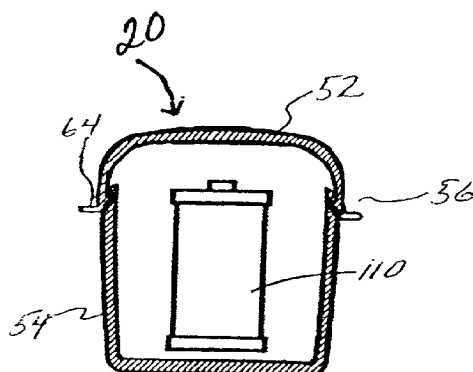


FIG. 8

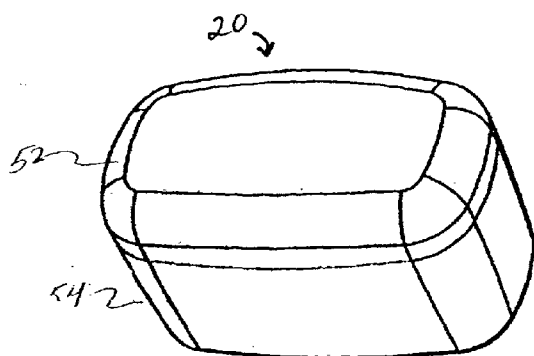


FIG. 9

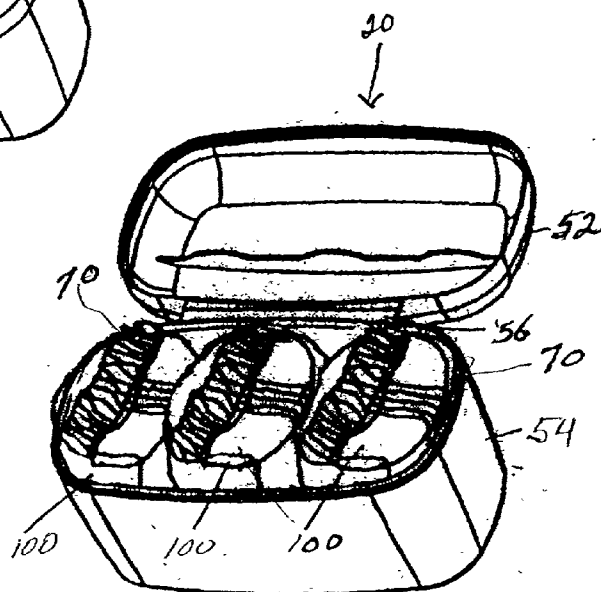


FIG. 10

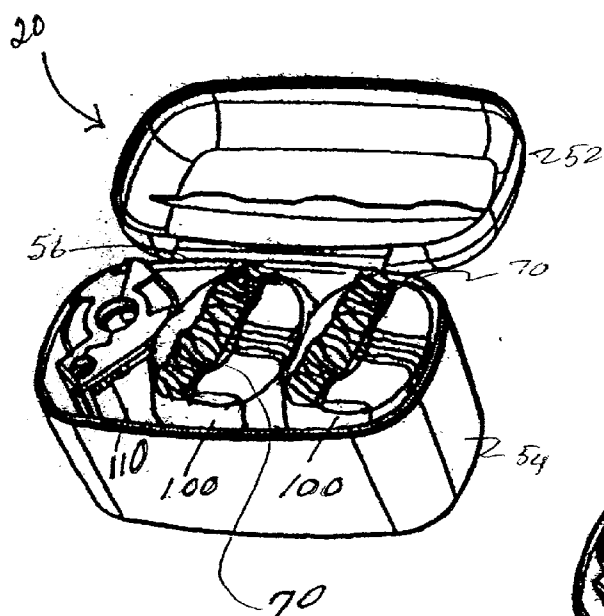


FIG. 11

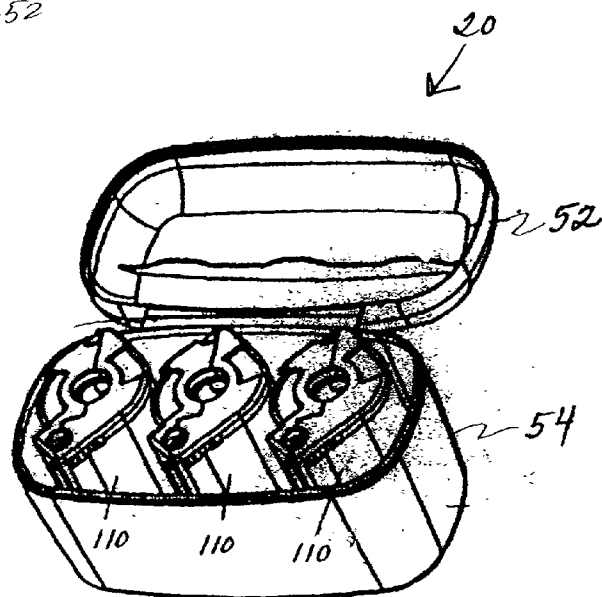


FIG. 12

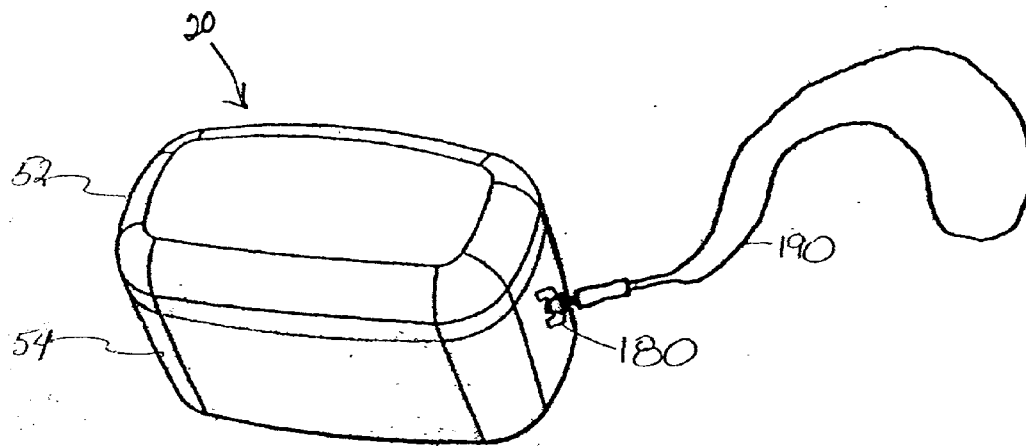


FIG. 13

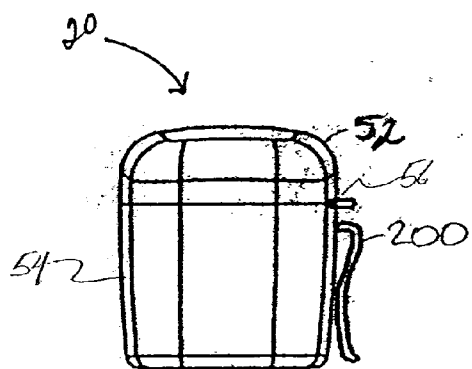


FIG. 14

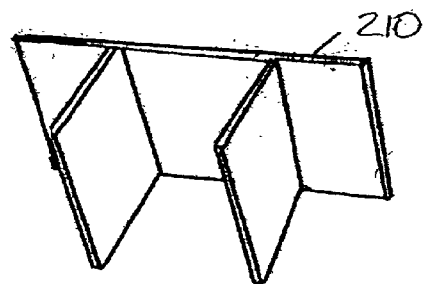


FIG. 15

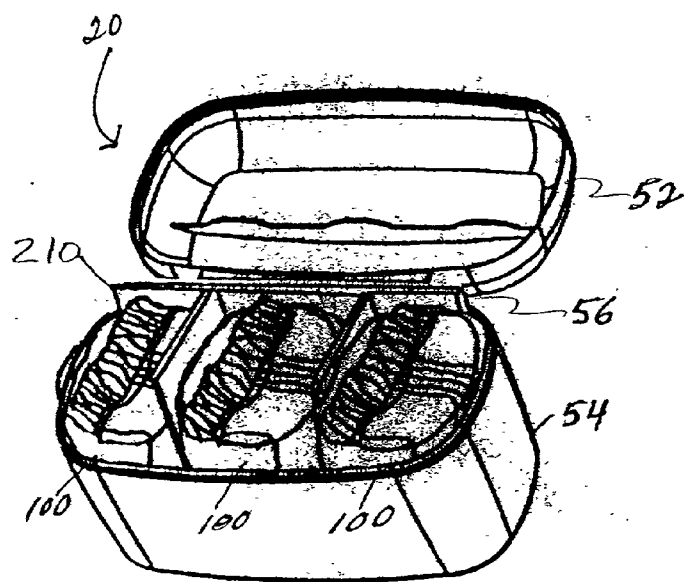


FIG. 16

STORAGE AND DISPLAY PACKAGE FOR CONTAINING LIGHT AND MOISTURE PROTECTED ARTICLES THEREIN

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application is related to U.S. application Ser. No. (Docket 83783), filed _____, by Tingey, et al., and entitled, "Case For Carrying And Storing Light And Moisture Protected Product;" and U.S. application Ser. No. (Docket 83171), filed-----, by Tingey, et al., and entitled, "Package And Method Of Making Same For Storing And Displaying Product"

FIELD OF INVENTION

[0002] The invention relates to the field of packaging. More particularly, the invention concerns a package for storing and displaying product, such as photographic film product and the like, in an easily accessible and convenient case.

BACKGROUND OF THE INVENTION

[0003] One way to display photographic products, such as camera film, for retail sale is in a full paperboard structure, commonly called a carton. An example of such a carton is one that is described and illustrated in U.S. Pat. No. 5,474, 183, entitled "Carton For Enclosing And Displaying Articles," by Warren et al., Dec. 12, 1995. Commonly, when such a carton is opened to gain access to the product inside, the carton flaps are rendered useless thereafter leaving no reasonable way to secure the unused product inside the carton. Moreover, it is well known that these cartons do not provide much protection from tampering or moisture.

[0004] Another well-known practice for displaying photographic product is to enclose the product in a flexible material package that once opened is destroyed, leaving no method to secure the unused product inside the flexible package. Single unit, hermetically sealed plastic film containers packed within cartons or flexible display packages provide physical and moisture protection but individual containers are cumbersome to handle and transport when multiple rolls of film are required. Additionally, in high humidity conditions, because of the hermetic seal, moisture may become entrapped in the product container having exposed film therein. In the case of 35 mm film there is no means provided to determine the exposure status of the film. If multiple rolls of the same variety of films are sealed within individual plastic containers they may be mistakenly used after they have been exposed, ruining both the initial and subsequent sets of images.

[0005] Yet another method disclosed in U.S. Pat. No. 5,139,165, entitled "Carton For Enclosing And Displaying Articles," by Warren et al., Dec. 12, 1995, describes a single piece, molded rigid container that can be opened with one hand, can be sealed against moisture, and provides protection from external force and heat by using air gaps provided by internal support structures. It also includes the use of shrink-wrap as an external protection layer to ensure the "virginity" of the enclosed product. These techniques provide no means to indicate if any or all of the enclosed cartridges of photographic film have been used or are fresh, nor does it provide individual protection for the enclosed

unused cartridges. Also, the rigid container can be resealed when closed, risking entrapping high humidity and moisture with the used and fresh film cartridges. In addition the use of shrink-wrap as an external wrapper is a limited means to provide instructions, advertising, physical protection, and physical display options such as peg hangers.

[0006] Therefore, a need persists in the art for a package that conveniently stores and displays product in a reusable product container or case that protects the product from adverse consequences of light and moisture.

SUMMARY OF INVENTION

[0007] It is, therefore, an object of the invention to provide a package that can conveniently store and display a product in a recloseable case.

[0008] It is another object of the invention to provide a package for storing and displaying a product that can be reused once all or a portion of the product contained therein is used.

[0009] Still another object of the invention is to provide a package for storing and displaying a product wrapped in a moisture and light impervious barrier material.

[0010] An important feature of the package of the invention is a display member that utilizes a transparent shell partially sandwiched between overlapped panels of the display member to securely encase a product container for display.

[0011] The present invention is directed to overcoming one or more of the problems set forth above. Briefly summarized, according to one aspect of the invention, a storage and display package has a display member having partially overlapped, closely spaced first and second panels. A reusable article container for containing at least one article wrapped in a hermetically sealed, moisture and light barrier material. Means for removably attaching the reusable article container to the display member is provided in the form of extended flange portions snugly sandwiched between the partially overlapped, closely spaced first and second panels of the display member.

[0012] The present invention has numerous advantages of prior developments, including: it allows packaging of product in a reusable container; it is both a simple and a convenient way to display and then store a product for later use by the consumer; it provides an easily recloseable product container that protects used and unused product stored therein; it will allow packaging of hermetically sealed photographic product in a reusable container; it provides tamper resistant and tamper evident outer display package; it contains a hinged lid, secured to the bottom portion of the package; and, it has a convenient case carrying member.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The foregoing as well as other objects, features and advantages of this invention will become more apparent from the appended Figures, wherein like reference numerals denote like elements, and wherein:

[0014] **FIG. 1** is a front view of a photographic product in a travel case and display package;

[0015] **FIG. 2** is a perspective view of a photographic product in a travel case and display package;

[0016] FIG. 3 is a side, cross-sectional view of an unopened, unused, and unexposed photographic product in a travel case and display package;

[0017] FIG. 4 is a side, cross-sectional view of an unopened, unused, and unexposed photographic product in a closed travel case with display package removed and discarded;

[0018] FIG. 5 is a side, cross-sectional view of an unused and unexposed photographic product in an opened travel case, with the barrier layer wrap intact;

[0019] FIG. 6 is a side, cross-sectional view of an unused, and unexposed photographic product without the travel case and with the barrier layer wrap intact;

[0020] FIG. 7 is a side, cross-sectional view of a used and exposed photographic product in an opened travel case and with the barrier layer wrap removed and discarded;

[0021] FIG. 8 is a side, cross-sectional view of a used and exposed photographic product in a closed travel case and with the barrier layer wrap removed and discarded;

[0022] FIG. 9 is a perspective view of a closed travel case with the display package removed and discarded;

[0023] FIG. 10 is a perspective view of an opened travel case with three unused and unexposed photographic products with the barrier layer wraps intact;

[0024] FIG. 11 is a perspective view of an opened travel case with two unused and unexposed photographic products with the barrier layer wraps intact, and one used and exposed photographic product with the barrier layer wrap removed and discarded;

[0025] FIG. 12 is a perspective view of an opened travel case, three used and exposed photographic products with the barrier layer wraps removed and discarded;

[0026] FIG. 13 is a perspective view of a travel case with an integrated lanyard and an attached wrist strap;

[0027] FIG. 14 is a side view of a travel case with an integrated belt clip;

[0028] FIG. 15 is a perspective view of a separator insert; and,

[0029] FIG. 16 is a perspective view of an opened travel case with a separator insert.

DETAILED DESCRIPTION OF THE INVENTION

[0030] Turning now to the drawings, and particularly to FIGS. 1-3, the package 10 of the invention for storing and displaying a product, such as light and moisture barrier protected photographic film product, is illustrated. According to FIGS. 1, 2, and 3, package 10, broadly defined, has a display member 12, a reusable product container or travel case 20 (hereinafter referred to as "case"), and a plastic shell 30, attachable to display member 12, that envelops the case 20.

[0031] Referring to FIGS. 2 and 3, display member 12, more particularly, includes a front layer 14 and a rear layer 16. As seen in FIG. 3, front layer 14 partially overlaps rear layer 16 and forms a closely spaced gap 18 therebetween. Front layer 14 and rear layer 16 of display member 12 are

preferably constructed of a paperboard stock material, although other materials, such as a wide array of plastics, may be used. According to FIG. 3, front layer 14 and rear layer 16 are designed to trap first and second extended flange portions 30a, 30b, respectively, of plastic shell 30 in gap 18. Moreover, front layer 14 and rear layer 16 may be used for assembly, graphics call-outs, instructions, and retail display (not shown). Front and rear layers 14, 16 are attached together with any appropriate heat activated or pressure sensitive adhesive, or mechanical fasteners such as staples (not shown). Although various means may be used to display package 10, we prefer utilizing a display lanyard cut through paperboard and plastic sections to form a through-opening to facilitate retail display by providing a means to hang the package from a hook, pegboard or the like. According to FIG. 2, during assembly of package 10, reusable case 20 is inserted into plastic shell 30 having first and second extended flange portions 30a, 30b. First and second extended flange portions 30a, 30b of plastic shell 30 are then snugly sandwiched or trapped between gap 18 formed by overlapping panel front and rear layers 14, 16.

[0032] Referring to FIG. 3, transparent plastic shell 30 may be constructed from a range of clear or semi-clear transparent materials. We prefer constructing plastic shell 30 from PVC or PET. Skilled artisans will appreciate that other materials, such as polyester, acrylic, etc., may also be used to construct plastic shell 30. In our preferred embodiment of the invention, plastic shell 30 is shaped to conform to the case 20 by either vacuum-forming or molding, depending on the material selected.

[0033] Referring to FIGS. 3-5, 7-14, and 16, case 20 is sealed within display package 10, as described above. As indicated above, plastic shell 30 encompasses rigid, reusable case 20 containing, for instance, unused photographic product 100. Case 20 is preferably constructed of HDPE although other materials, such as polypropylene, could be used. In practice, case 20 may contain one or more rolls of unused photographic product 100. Moreover, case 20 could be transparent, or opaque, or opaque with a transparent viewing window (not shown). Additionally, case 20 can be manufactured so that brand identification, logos, instruction, and the like, are permanently imbedded in plastic case material.

[0034] According to FIG. 3, a cross-sectional view of an unopened, unused, and unexposed photographic product 100, sealed within barrier wrap 130 is illustrated. Unused photographic product 100 is shown stored inside case 20 that is mounted for display in package 10. As indicated, display member 12 of package 10 has a front layer 14 and a partially overlapped rear layer 16 which could be a single hingeably attached paperboard portion (not shown) or two separate layers 14, 16, as shown. The inside portion of the display member may contain a coating, e.g., a thermal adhesive or thermal resin, that may be activated by heat or pressure or the entire assembly could be attached with a mechanical fastener such as a staple (not shown). As indicated, gap 18 between overlapping front and rear layers 14, 16 traps or "sandwiches" the extended flange portions 30a, 30b of plastic shell 30 with the case 20 inside the shell 30.

[0035] Referring to FIGS. 5 and 6, typically, unused photographic product 100, such as a film roll, requires a flexible barrier wrap material 70 or container around the

unused photographic product **100** to provide physical protection and a seal portion or “hermetic seal” **72** to provide barrier property protection to prevent high humidity and moisture from contacting the unused photographic product **100**. Case **20** is best used to accommodate product that is hermetically sealed and protected from light and moisture exposure. This is generally accomplished by providing a product **100** to be packaged in the package **10** of the invention that is hermetically sealed, such as by sealing individual rolls of unused photographic product **100** with a flexible barrier wrap material **70**. This flexible barrier wrap material **70** may comprise a heat sealed aluminized thermoplastic or similar material.

[0036] Referring to FIGS. 4-8, in a preferred embodiment of the invention, case **20** has a top cover **52** and bottom section **54** connected by hinge **56** that would allow opening and re-closing. Hinge **56** may be of the heat and pressure variety commonly known as a “living hinge” or a conventional mechanical hinge (not shown). Secure closure is accomplished by the mechanical engagement of bottom latching interface edge **60** and top cover latching interface **62**. Case **20** is opened with finger latch release **64**. These features allow product contained in case **20**, such as unused photographic product **100** to be removed, as well as unused product to be securely enclosed in the case **20** once the re-closure is engaged. Case **20** is intended to be used as a “travel case,” allowing the consumer to remove one roll of film, securing the remaining rolls within the case **20** using the top cover **52**, hinge **56**, bottom latching interface edge **60**, and the top cover latching interface **62** as the re-closing features.

[0037] FIG. 4 depicts closed case **20** with the enclosed unused photographic product **100** with barrier wrap material **70**. Closed case **20** provides stylish, ergonomic, and convenient containment and protection for photographic products and is designed to fit into a purse or travel bag. Each roll of unused photographic product **100** is individually sealed with a barrier wrap material **70**. Individual wrapped product allows the removal and opening of one roll of photographic product while the remaining rolls are securely wrapped and hermetically sealed. This feature also serves as a usage indicator for photographic products, like 35mm film, that do not include an integrated usage indicator. The lack of flexible barrier wrap material **70** on rolls of film in the travel case provides a clear indication of usage. Some photographic products, like 24 mm Advance Photo System™ and 110 films, include an integrated usage indicator but do benefit from individual hermetic seals. In addition, the barrier wrap material **70** can contain printed information, not shown, indicating the properties of the contents such as film type and film speed.

[0038] FIG. 5 depicts opened case **20** with an enclosed unused photographic product **100** in barrier wrap material **70** with seal portion **72**. Opened case **20** consists of case top cover **52**, case bottom section **54**, and travel case “living” hinge **56** which may be molded as an integral part of the case **20**. Applying an upward pressure to finger latch release **64** opens case **20**. This action releases the top cover section latching interface **62** from bottom latching interface edge **60**. Case top cover **52** remains attached to case bottom section **54** via flexible case hinge **56**.

[0039] FIG. 6 depicts unused photographic product **100** in barrier layer wrap **70** having seal portion **72**. The unused

photographic product **100** is enclosed in a barrier wrap material **70** and hermetically sealed via barrier layer seal **72**. In one embodiment, barrier wrap material **70** is a sheet of aluminized thermoplastic with the seal portion **72** created with heat and pressure. Other suitable barrier layer materials and sealing techniques can be used.

[0040] Referring to FIG. 7, a used photographic product **110** has been placed in case **20**. The lack of barrier wrap material **70** provides a clear indication that the photographic product **110** has been used and is being stored in case **20** for future processing.

[0041] FIG. 8 depicts a used photographic product **110** that has been placed in case **20**. Case **20** has been closed to contain and protect used photographic product **110** until it is submitted to a photo-processing lab for photo development.

[0042] FIG. 9 is a perspective view of a closed case **20** designed to hold three (3) articles, such as three (3) rolls of 24 mm IX film. It is understood that the case **20** can be designed to hold more or fewer rolls of film or other photographic products and formats.

[0043] Referring to FIG. 10, an opened case **20** containing unused photographic products **100** in sealed barrier wrap material **70**. Case **20** has all the same features as described above for protecting the product from moisture and vapor.

[0044] Referring to FIG. 11, a perspective view of an opened case **20** containing two (2) unused photographic products **100** in sealed barrier wrap material **70** and one (1) used photographic product **110**. The flexibility of case **20** for containing product in various states of use is illustrated.

[0045] FIG. 12 is a perspective view of an opened case **20** containing three (3) used photographic products **110**. The case **20** provides utility by conveniently carrying multiple rolls of unused film to a “picture taking event” such as a party or a vacation, or for transporting used film to a photo-processing lab.

[0046] Turning now to FIG. 13, a perspective view of case **20** with an optional integrated lanyard **180** and attached wrist strap **190** is illustrated. The integrated lanyard **180** may be molded as part of the case **20** or attached with adhesives or screws (not shown).

[0047] FIG. 14 is a side view of case **20** with optional integrated belt clip **200**. The integrated belt clip **200** may be molded as part of the case **20** or attached with adhesives or screws. Belt clip **200** must be configured not to interfere with the operation of case top cover **52** for opening and closing case **20**. Belt clip **200** can be used to secure the case **20** to a belt, camera strap, or windshield visor.

[0048] Referring to FIGS. 15 and 16, a separator insert **210** for isolating and maintaining product contained in case **20** is illustrated. Separator insert **210** may be used to maintain the position of the enclosed photographic products, **100**, **110**, and can also include instructions, coupons, and the like (not shown). In addition, separator **210** can be impregnated with a moisture absorbing, desiccant material such as silica gel, activated alumina, activated clay and the like. According to FIG. 16, a perspective view of separator insert **210** installed in case **20** is depicted. As shown, separator insert **210** primarily maintains the position of photographic products **100**, **110** stored in case **20**.

[0049] The invention has been described with reference to a preferred embodiment thereof. It will be appreciated, however, that a person of ordinary skill in the art can effect variations and modifications without departing from the scope of the invention.

PARTS LIST

[0050]	10	package
[0051]	12	display member
[0052]	14	front layer of display member 12
[0053]	16	rear layer of display member 12
[0054]	18	gap between overlapping front and rear layers
[0055]	20	reusable product container or travel case
[0056]	30	plastic shell
[0057]	30a	first extended flange portion
[0058]	30b	second extended flange portion
[0059]	52	top cover of case 20
[0060]	54	bottom section of case 20
[0061]	56	hinge of case 20
[0062]	60	bottom latching interface edge
[0063]	62	top cover latching interface edge
[0064]	64	finger latch release
[0065]	70	flexible barrier wrap material
[0066]	72	seal portion or hermetic seal
[0067]	100	unused photographic product
[0068]	110	used photographic product
[0069]	130	barrier wrap
[0070]	180	integrated lanyard
[0071]	190	wrist strap
[0072]	200	belt clip
[0073]	210	separator insert

What is claimed is:

1. A storage and display package, comprising:
a display member having partially overlapped, closely spaced first and second layers;

a reusable article container having a recloseable lid for containing at least one article, said at least one article being wrapped in a hermetically sealed, moisture and light barrier material; and,

means for removably attaching said reusable article container to said display member, said means for removably attaching comprising extended flange portions snugly sandwiched between said partially overlapped, closely spaced first and second layers.

2. The storage and display package recited in claim 1 wherein said partially overlapped, closely spaced first and second layers comprise a paperboard material.

3. The storage and display package recited in claim 1 wherein said means for removably attaching said reusable article container comprises a semi-rigid transparent polymeric layer conformably encased about said reusable article container.

4. The storage and display package recited in claim 3 wherein said semi-rigid transparent polymeric layer is a thermoplastic or thermoset material.

5. The storage and display package recited in claim 1 wherein said extended flange portions trapped between said partially overlapped, closely spaced first and second layers includes means for fixedly securing said extended flange portions between said partially overlapped, closely spaced first and second layers.

6. The storage and display package recited in claim 5 wherein said means for fixedly securing includes adhesively bonded said partially overlapped, closed spaced first and second layers.

7. The storage and display package recited in claim 1 wherein said display member comprises an opening arranged in a top portion of said display member to facilitate display.

8. The storage and display package recited in claim 1 wherein said reusable article container has a first latching member and said reclosable lid has a second latching member configured for engaging said first latching member.

9. The storage and display package recited in claim 8 wherein said first latching member is a notch formed in a top edge exterior portion of said reusable article container and said second latching member is a protruding lip configured for engaging said notch.

10. The storage and display package recited in claim 9 wherein said protruding lip further includes a finger latch release for disengaging said protruding lip from said notch.

* * * * *