[0005] Alternatively, in many retail locations where chewing gum is sold, it is often desirable for a consumer to have the ability to purchase a single or select number of confectionary pieces, instead of purchasing an entire pack. Moreover, many retail locations have limitations on space and do not have the ability to stock large quantities of confections. Therefore, it would be desirable to have the ability to easily sell to consumers a select number of confectionary pieces, depending on the quantity requested by the consumer.

[0006] Even though it is desirable to have a dispenser that allows for sharing among a number of individuals or providing individual pieces that may be purchased by different consumers, it is critical to ensure that the gum pieces are protected from outside environmental factors. Accordingly, it is desirable to have individual pieces that are sealed, as to preserve the quality and flavor of the confection, while at the same time protecting it from the outside environment.

[0007] In order to provide a more sustainable dispenser, it is further desirable to consider alternatives for packaging and dispensing of consumable products. The ability to refill an outer container or dispenser enables either a retail location or an individual consumer to minimize the amount of waste that is associated with consuming the products. In addition, the cost associated with only purchasing refills instead of having to purchase more costly outer containers is further benefit.

Summary of the Invention

[0008] A multi-piece dispenser for confectionary products including a housing defining an inner chamber for storing a multi-piece package of confectionary product. The housing further includes a slot for receiving an end portion of the multi-piece package for dispensing the confectionary product. A retention member may further be provided for retaining the end portion of the package within the slot for further dispensing. Moreover, the

retention member may be positioned within the inner chamber of the dispenser. The housing is configured, such that the slot is non-threading for receiving the package within the slot.

[0009] The disclosure further includes a multi-piece dispenser for confectionary products including a housing defining an inner chamber for storing a multi-piece package of confectionary product. The housing including a slot for receiving one end portion of the multi-piece package for dispensing the confectionary product. The dispenser further includes a retention member. The retention member may further include a tension assembly disposed in the inner chamber of the housing for securing another end portion of the multi-piece package within the inner chamber and retaining the other end portion of the package within the slot for further dispensing.

[0010] Moreover, the disclosure further includes a multi-piece package containing a plurality of gum pieces, wherein the gum pieces are enclosed within a material and sealed along three sides. Alternatively, the gum pieces may be sealed individually within blister-type packages that are interconnected with one another to form a continuous coil or strip. The package allows for unique dispensing and integration within an outer housing for dispensing of confectionary products.

Brief Description of the Drawings

[0011] The present invention will now be described by way of example, with reference to the accompanying drawings:

[0012] Figure 1 is a perspective view of a dispenser including a multi-piece package in accordance with one embodiment of the invention;

[0013] Figure 2 is an alternate view of the dispenser and multi-piece package as shown in Figure 1;

[0014] Figure 3 is a side cross-sectional view of the dispenser and multi-piece package as shown in Figure 1;

[0015] Figure 4 is a side cross-sectional view of the dispenser and multi-piece package in accordance with another embodiment;

[0016] Figure 5 is a perspective partial view of a dispenser and a multi-piece package in accordance with another embodiment;

[0017] Figure 6 is a perspective view of a dispenser in accordance with another embodiment;

[0018] Figure 7 is a perspective view of a dispenser in accordance with another embodiment of the invention;

[0019] Figure 8 is a back perspective view of an alternate embodiment of a dispenser, wherein the back wall portion is hingedly attached;

[0020] Figure 9 is a side cross-sectional view of an alternate embodiment of a dispenser;

[0021] Figure 10 is a side cross-sectional view of a dispenser in accordance with another embodiment of the invention;

[0022] Figure 11 is a side cross-sectional view of a dispenser in accordance with another embodiment of the invention;

[0023] Figure 12 is a perspective view of a dispenser in accordance with another embodiment of the invention;

[0024] Figure 13 a side view of the dispenser as shown in Figure 12;

[0025] Figure 14 is a perspective view of the dispenser as shown in Figure 12 in an opened position;

[0026] Figure 15 a side view of the dispenser as shown in Figure 14;

[0027] Figure 16 is a perspective view of a dispenser in accordance with another embodiment of the invention;

[0028] Figure 17 is a perspective view of a dispenser in accordance with another embodiment of the invention;

[0029] Figure 18 is a perspective view of a dispenser in accordance with another embodiment of the invention;

[0030] Figure 19 is a perspective view of a multi-piece package in accordance with embodiment of the invention; and

[0031] Figure 20 is a perspective view of a multi-piece package in accordance with another embodiment of the invention;

[0032] Figure 21 is a side perspective view of a dispenser in accordance with another embodiment of the invention;

[0033] Figure 22 is a front perspective view of the dispenser as shown in Figure 21;

[0034] Figure 23A is perspective view of a portion of the dispenser in accordance with an embodiment of the invention, wherein another portion has been removed to show the interior of the dispenser;

[0035] Figure 23B is a perspective view of another portion of the dispenser that may be coupled with the portion in Figure 23A to provide the dispenser;

[0036] Figure 24 is perspective view of a portion of the dispenser in accordance with another embodiment of the invention, showing the interior of the dispenser;

[0037] Figure 25 is a front perspective view of the dispenser as shown in Figure 24, wherein a multi-piece package, in accordance with an embodiment of the invention, has been inserted into the dispenser;

[0038] Figure 26 is a cross-sectional view of an alternate embodiment of a dispenser;

[0039] Figure 27 is a perspective view of a portion of the tension assembly in accordance with an embodiment of the invention;

[0040] Figure 28A and 28B are perspective views of components of the coupling member for use in the dispenser, such as shown in Figure 25, in accordance with an embodiment of the invention;

[0041] Figures 29A and 29B are perspective views of a dispenser and multi-piece package in accordance with an embodiment of the invention; and

[0042] Figure 30 is a perspective view of a multi-unit dispenser in accordance with another embodiment of the invention.

Detailed Description of the Invention

[0043] The present disclosure provides a multi-piece dispenser for consumable products, such as for example, confectionary products. In one aspect, the multi-piece dispenser may be used for dispensing chewing gum. The disclosure further provides alternate embodiments of a dispenser and a multi-piece package, as well as a method for manufacturing the multi-piece package.

[0044] The dispenser 10, in accordance with one aspect of the present invention, includes a housing 14 containing a multi-piece package 12 of confectionary product, such as for example chewing gum G. The term "multi-piece package" is herein used to mean a strip-like structure having a plurality of individual pieces of gum, wherein each individual piece of

gum is sealed within a material (*e.g.*, film, blister package) and coupled together to form the strip-like structure (*i.e.*, a bandoleer). The multi-piece package may have a predefined width and length. The individual pieces may further be divided by a tear line, such that upon the exertion of force, the individual pieces may be separated from one another. The multi-piece package may be provided in a roll-like configuration or an accordion style configuration, such as discussed in further detail below. Alternate configurations may also be used for packaging and dispensing depending on the type of confectionary being used, such as for example, alternate configurations and sizing may be used depending on if tab, stick or pellet chewing gum is being packaged and sold for use with the dispenser. Moreover, the multi-piece package may include a variety of individual gum pieces in a number of different piece counts, such as for example, 25, 30, 60, 90 or any number of pieces as desired by the consumer.

[0045] Alternatively, the confectionary pieces may be oriented in various configurations relative to one another. As shown, the confectionary pieces may be oriented in a long side/edge orientation. In another embodiment, the confectionary pieces may be configured within the package such that the short side/edge is leading (*i.e.,* the individual pieces are positioned end to end) within the bandoleer.

[0046] Although the Figures and related disclosure are directed to packaging and dispensing of confectionary products, in particular chewing gum, the present invention may be directed to various applications, including but not limited to other consumable products, alternate confectionary products such as mints, candy (including hard, chewy or gummy candy), chocolate and/or any other confectionary. Moreover, alternate configurations of the dispenser, such as, for example, those discussed below, may be utilized including but not limited to, cube shaped, rectangular shaped, triangular shaped, bean shaped, circular shaped, clam shell shaped, cone shaped, or any other shape suitable for use as a dispenser, or

combinations thereof. In addition, various combinations of dispensers may be coupled together, such that a dual (double) or triple dispenser may be provided. Accordingly, the Figures are exemplary and illustrate various aspects of the present disclosure.

[0047] In one embodiment, the dispenser of the present invention may be designed to be a refillable dispenser. This allows for the consumer to maximize the use of the dispenser and to not increase the waste associated with discarding the entire dispenser. In another embodiment, the dispenser may not be refillable. In the event that the dispenser is not refillable, the consumer would discard the dispenser upon using the entire contents of the multi-piece package.

[0048] In accordance with one aspect of the invention, the dispenser has a housing defining an inner chamber for storing the multi-piece package of confectionary product. The housing may further include a plurality of wall members, as shown in the provided Figures. In one embodiment, the wall members forming the housing may be integrally formed together as one unitary piece or part. Alternatively, in another embodiment the wall members may be separately manufactured and then hingedly couple to one another and/or fit together upon assembly (i.e., such as a lid or other type configuration). Alternatively, in another embodiment, various manufacturing and assembly methods may be used for the assembly of the walls to form the housing. Accordingly, the housing of the present disclosure may be configured in alternate ways depending on the materials used for assembly of the dispenser. Moreover, the wall members may further include structural elements, including for example, but not limited to elements (*i.e.,* ribs) to enhance or increase strength and/or decrease thickness of the wall members.

[0049] In general, the dispenser may be formed of various materials, including for example but not limited to, plastic or plastic-like material, molded pulp, paperboard,

as shown in Figure 6, that includes a portion 111 and a portion 113 that a hingedly H coupled together to form housing 114 defining inner chamber 116. Upon closing portion 111 and portion 113, slot 120 may be defined for receiving the end portion of the multi-piece package. The slot 120 is non-threading. Retention tab(s) 132 may further be disposed along the length (l) of the slot. In one embodiment, the retention tab(s) 132 are each integrally formed each portion 111 and 113, respectively. When portion 111 and portion 113 are joined to form dispenser 110, a retention member 130 is formed through the combination of retention tabs 132.

[0057] Alternate embodiments of the present invention further include a dispenser having a triangular or pyramidal shape, as well as other shapes/configurations, as further illustrated by dispensers 210, and 310 in Figures 7-11.

[0058] The triangular or pyramid shaped dispenser 210 may be used in combination with the multi-piece package 12 previously discussed. In accordance with one embodiment, as shown in Figures 7-10, dispenser 210 includes a housing 214 defining an inner chamber 216 for storing the multi-piece package of confectionary products, *i.e.*, chewing gum. A plurality of wall members 218 may be used in combination to form the housing 214. The wall members 218 may be integrally formed as one unitary piece or separately manufactured for assembly. For example, as shown in Figure 7, wall 218 may be a separate end cap or hingedly coupled to form the housing 214. Alternatively, as shown in Figure 8, back wall 218″ may be hingedly coupled to form housing 214. More specifically, as shown in Figure 9, dispenser 210 may further include a hinge (H) wherein wall member 218″ may be hingedly attached or coupled to wall member 218. Accordingly, wall member 218″ may be de-coupled (*i.e.,* separated) from wall member 218′ along line (L), therein providing access to inner chamber 216. Each of these configurations allow for the consumer to readily access inner chamber 216 for placement of the package (not shown) within the dispenser.

combination with the inner surface of the outer wall 318 to form retention member 330. The retention tab 332 further includes a curved portion 333 that facilitates the movement of the package (not shown) within the dispenser 310 and through slot 320. An additional guide member 334 may be integrated within the inner chamber 316 of the housing 314. The guide member 334 is provided to prevent the package from becoming caught on retention member 332 within curved portion 333. Guide member 334 may be designed in different lengths, forms or configuration to facilitate the movement of the package within the dispenser.

[0062] Additional embodiments of the dispenser may further include alternate slot configurations. Such alternate slot configurations provided additional access to the multi-piece package by the consumer or provided alternate methods for tearing the individual pieces from the multi-piece package.

[0063] Another embodiment of the present invention may include a dispenser 510 having a multi-piece configuration (such as, for example, the bean shaped configuration), wherein the pieces are hingedly connected to one another, as further illustrated in Figures 12-15. As an example, the bean shaped dispenser 510 may be used in combination with the multi-piece package 12 as previously discussed. Accordingly, dispenser 510 includes a housing 514 defining an inner chamber 516 (as shown in Figures 14 and 15) for storing the multi-piece package of confectionary products, i.e., chewing gum. A plurality of wall members 518 may be used in combination to form the housing 514. The wall members 518 may be integrally formed as one unitary piece or separately manufactured for assembly. More particularly, in one embodiment, dispenser 510 may further include a side portion 511, a side portion 513, and a base portion 515. Portions 511 and 513 may be hingedly attached (H) to base portion 515. The base portion 515 is stationary, whereas portions 511 and 513 move relative to the base portion thereby providing access to the inner chamber, as illustrated in Figures 14 and 15. A slot 520 is further provided for receiving the end portion of the

includes a portion 711 and a portion 713 hingedly attached (H) to one another. The combination of portion 711 and portion 713 form slot 720 for receiving and retaining the multi-piece package. Although not shown, a retention member, including at least one retention tab, may be integrated and used in connection with slot 720.

[0066] Furthermore, in an alternate embodiment, dispenser 810 is provided in a circular or ring shaped configuration. In one embodiment the dispenser 810 may be hollow in the center, therein providing a ring shaped configuration. Alternatively, the dispenser may have full formed side portions, as shown in Figure 18, therein providing a circular shaped configuration. Moreover, in another embodiment, a circular dispenser may be provided. In accordance with an embodiment of the invention, dispenser 810 includes a housing 814 defining an inner chamber (not shown). The housing 814 further includes a body portion 811 and a side portion 813. The side portion 813 may be hingedly coupled to body portion 811, or alternatively may be a separate portion that engagingly couples to the body portion 811. The body portion 811 further defines a slot 820 for receiving and retaining the multi-piece package. The side portion 813 is provided to enclose housing 814 and secure the multi-piece package within the dispenser 810.

[0067] As previously discussed, the present invention is directed to a dispenser for use with a multi-piece package. Moreover, the disclosure relates to the multi-piece package and the method of manufacturing the multi-piece package for dispensing. Overall, the multi-piece package is directed to a strip-like structure containing a plurality of individual pieces of confectionary product, in particular, chewing gum. The individual pieces of gum may be separately sealed but are coupled together to form the multi-piece package, also referred to as a bandoleer. In order to separate the individual pieces from one another, a tear line T may be provided, such as those shown in Figures 19 and 20. As can be seen in Figure 19, the multi-piece package 12 includes individual gum pieces G that enclosed by a material 13, such as for

example, a film that is used to seal the gum pieces. Alternative, the gum pieces may be enclosed in individual blister-type packages that are coupled together to form a roll-like bandoleer (as shown, for example, in Figure 21-22, 25). Each of the individual gum pieces are separated by a tear line T. The tear lines may be perforated along the entire length of the tear line or just a portion thereof. Alternatively, tear notches T′ may be provided along the tear line, such that a tear member (i.e., tear member 40 shown in Figure 5) may further assist in separating the individual pieces from one another. Alternatively, the tear notch T′ may be offset from the tear line T, such that the individual gum pieces may be separated from one another and then a tear notch is provided within the package to open the package. In general, the tear notch T′ may be provided throughout various locations of the package for opening the package. Alternatively, a consumer may easily tear the individual pieces apart based on either the perforated tear line T, as shown in Figure 19, or the additional tear notches T′ provided on the ends of the individual wrapped pieces, as shown in Figure 20. Although Figures 19 and 20 show the individual gum pieces coupled together on the length of the gum pieces, alternate configurations are considered, such that the tear line is repositioned and the gum pieces are placed end to end within the package.

[0068] Alternate embodiments of the dispenser may further include those shown having a blister-type multi-piece package, as shown for example in Figures 21- 30. As can be seen throughout the Figures, dispenser 1110 may be configured to retain a multi-piece package 1112 designed to enclose individual pieces of pellet-type gum forms within individual blister packages P. The individual gum pieces are providing in package 1112 may be separated by a tear line T. Alternatively, each of the gum pieces could be manually separated by a consumer through mechanically severing (*i.e.,* cutting) the pieces apart. In accordance with an embodiment of the invention, dispenser 1110 includes a housing 1114 having a body portion 1111 and a side portion 1113 (alternately, the side portion 1113 may

[0071] In accordance with an embodiment of the invention, body portion 1111 and side portion 1113, as shown for example in Figures 23A and 23B, may be coupled together to form dispenser 1110. As previously suggested, side portion 1113 and body portion 1111 may be secured either though a snap-fit, locking or any other type of connection means known by one of ordinary skill in the art (such as for example, incorporating connection members 1125 in side portion 1113 for engagement with receiving portions 1127 provided by body portion 1111). As a result, side portion 1113 and body portion 1111 may be separated for refilling of the dispenser and then subsequently reconnected. Moreover, side portion 1113 may further include alignment members 1128 that further help guide or align side portion 1113 with body portion 1111 prior to attachment of the two portions together.

[0072] As previously discussed, a slot 1120 may be integrated as part of body portion 1111 allowing package 1112 to extend outside of the housing 1114 resulting in end portion 1122 of package 1112 being readily accessible to either a consumer or vendor. Alternate placements of slot 1120 may be considered within housing 1114 depending on the needs of the consumer and for manufacturing capabilities. Slot 1120 may be configured as threaded (as shown in Figures 23-25) but alternatively the slot may be non-threaded in accordance with the previously described embodiments.

[0073] Dispenser 1110 may further include a retention member as previously disclosed in relation to alternate embodiments wherein various retention members (although not shown) may be integrated with the slot 1120 to further support and retain package 1112 within the dispenser 1110. As shown in Figures 23A, 24-25, the retention member may further include guide members 1131 to further facilitate the movement of package 1112 into slot 1120. Alternate configurations of guide members 1131, although not shown, may further include for example, flexible members that allow for flexing of the member 1131 relative to the package, as well as the incorporation of foam or other related materials that would

including but not limited to plastic, paperboard or other semi-durable type materials that are known by one of ordinary skill in the art.

[0077] As previously suggested, a securing assembly 1153 is further provided as part of the tension assembly 1150. As seen in Figures 24-26, in particular Figure 26, the securing assembly 1153 is one example of how to secure the tension assembly 1150 to body portion 1111, but alternate configurations of the securing assembly are contemplated within the scope of the invention. The securing assembly 1153 attaches the body portion 1111 of dispenser 1110 to package 1112. In accordance with one embodiment, as seen in the provided Figures, securing assembly 1153 includes a connection member 1170 (such as for example, a screw) provided through the bottom surface 1119 of body portion 1111 into inner chamber 1116 and through the center of outer portion 1151 of tension assembly 1150. A spring or spring-like member 1171 may be positioned over the connection member 1170 and a securing member 1173 (such as for example, a wing nut) is positioned over the spring to interconnect and retain all of the components of the securing assembly 1153. Although specific components of the securing assembly have been described and shown, alternate components having similar or equivalent functionality may be used to secure the tension assembly 1150 within dispenser 1110.

[0078] Alternate configurations of dispenser 1110 may further provide other functional elements to be incorporated within the outer surface of the housing 1114 of the dispenser 1110. Such elements would include, for example but are not limited to, a clock or any other type of display like window or area that would allow a retailer to use the dispenser for additional purposes.

[0079] Another embodiment of the present invention further includes an alternate form of a dispenser 1210, as shown in Figures 29A and 29B. Accordingly, one embodiment

may further provide a hand-held or personal configuration that incorporates a blister package. In accordance with one of the embodiments of the present invention, the handheld dispenser 1210 would include a coil-like configuration of a blister package 1212 and an opening 1220 that would allow for a consumer to access or withdraw a single blister. The opening 1220 could be defined by either a portion 1214a of the housing 1214 configured to either slide into the housing 1214 or be hingedly connected to the housing 1214. The hand-held configuration allows for increased sharing among individuals while at the same time maintaining freshness of the product enclosed within the blister package.

[0080] In another embodiment, the present invention further includes a multi-unit dispenser 1300, as shown in Figure 30, wherein separate dispensers 1310a, 1310b, and 1310c may be coupled together or integrated with one another to form a dispenser that has multiple different packages 1312a, 1312b, and 1312c. The multi-unit dispenser may be used to dispense different confectionary products either having different forms, flavors, or any other combinations. Accordingly, as an example, one dispenser could include a package for stick gum, while another dispenser includes gum in pellet form, and an additional dispenser could include an alternate confectionary product. Alternatively, as shown, each of the dispensers could include different pellet blister-type packages that have different flavors or products within the packages. The multi-unit dispenser may include at least one housing having individual slots for the separate packages or alternatively multiple housings may be provided that are coupled together, as known by one of ordinary skill in the art. Although Figure 30 shows three individual dispensers coupled together, such representation is exemplary by nature and alternate numbers of dispensers and packages may be integrated together depending on the desired form of the multi-unit dispenser. Moreover, the multi-unit dispenser may be provided in alternate shapes and sizes depending on the desired configuration of the dispenser.

[0081] The present invention further includes a method for manufacturing the multi-piece package of confectionary product. The multi-piece package includes a three-sided sealed configuration. Accordingly, a piece of material is provided having a predefined width and length. The material may include any type of material that creates an adequate barrier for protecting the confection product inside. Moreover, the material must also exhibit attributes, such as for example, being sealable, tearable, printable and cost effective. As a result, the material may include but is not limited to, the use of orientated polypropylene film. The piece of material is divided (although not physically divided) in half by a central line thereby dividing the material into two halves. A plurality of gum pieces are positioned on one half, such that each of the ends of the individual gum pieces are disposed adjacent to the central line of the film. The gum pieces are separated by a predetermined distance along the length of the film. Once the gum pieces are positioned, the other half (that does not have the gum pieces) is folded about the central line such that the folded half is placed on top of the half of the film that includes the individual chewing gum pieces. Subsequently, the material is sealed about the length and width of the material and between each of the individual gum pieces, such that the gum pieces have a three-sided seal. The fourth side is formed by the folding of the material about the central line. As a result a multi-piece package is created including individual pieces of gum having a three sided seal. The multi-piece package may then be used in connection with any of the various embodiments of the dispenser previously disclosed.

[0082] While the invention has been described with respect to certain preferred embodiments, as will be appreciated by those skilled in the art, it is to be understood that the invention is capable of numerous changes, modifications and rearrangements, and such changes, modifications and rearrangements are intended to be covered by the following claims. Moreover, the foregoing descriptions of specific embodiments of the present

[0005] Alternatively, in many retail locations where chewing gum is sold, it is often desirable for a consumer to have the ability to purchase a single or select number of confectionary pieces, instead of purchasing an entire pack. Moreover, many retail locations have limitations on space and do not have the ability to stock large quantities of confections. Therefore, it would be desirable to have the ability to easily sell to consumers a select number of confectionary pieces, depending on the quantity requested by the consumer.

[0006] Even though it is desirable to have a dispenser that allows for sharing among a number of individuals or providing individual pieces that may be purchased by different consumers, it is critical to ensure that the gum pieces are protected from outside environmental factors. Accordingly, it is desirable to have individual pieces that are sealed, as to preserve the quality and flavor of the confection, while at the same time protecting it from the outside environment.

[0007] In order to provide a more sustainable dispenser, it is further desirable to consider alternatives for packaging and dispensing of consumable products. The ability to refill an outer container or dispenser enables either a retail location or an individual consumer to minimize the amount of waste that is associated with consuming the products. In addition, the cost associated with only purchasing refills instead of having to purchase more costly outer containers is further benefit.

Summary of the Invention

[0007a] The invention is defined in the independent claim. Some optional features of the invention are defined in the dependent claims.

[0008] The disclosure includes a multi-piece dispenser for confectionary products including a housing defining an inner chamber for storing a multi-piece package of confectionary product. The housing further includes a slot for receiving an end portion of the multi-piece package for dispensing the confectionary product. A retention member may further be provided for retaining the end portion of the package within the slot for further dispensing. Moreover, the

retention member may be positioned within the inner chamber of the dispenser. The housing is configured, such that the slot is non-threading for receiving the package within the slot.

[0009] The disclosure further includes a multi-piece dispenser for confectionary products including a housing defining an inner chamber for storing a multi-piece package of confectionary product. The housing including a slot for receiving one end portion of the multi-piece package for dispensing the confectionary product. The dispenser further includes a retention member. The retention member may further include a tension assembly disposed in the inner chamber of the housing for securing another end portion of the multi-piece package within the inner chamber and retaining the other end portion of the package within the slot for further dispensing.

[0010] Moreover, the disclosure further includes a multi-piece package containing a plurality of gum pieces, wherein the gum pieces are enclosed within a material and sealed along three sides. Alternatively, the gum pieces may be sealed individually within blister-type packages that are interconnected with one another to form a continuous coil or strip. The package allows for unique dispensing and integration within an outer housing for dispensing of confectionary products.

Brief Description of the Drawings

[0011] The present invention will now be described by way of example, with reference to the accompanying drawings:

[0012] Figure 1 is a perspective view of a dispenser including a multi-piece package in accordance with one embodiment;

[0013] Figure 2 is an alternate view of the dispenser and multi-piece package as shown in Figure 1;

[0014] Figure 3 is a side cross-sectional view of the dispenser and multi-piece package as shown in Figure 1;

[0015] Figure 4 is a side cross-sectional view of the dispenser and multi-piece package in accordance with another embodiment;

[0016] Figure 5 is a perspective partial view of a dispenser and a multi-piece package in accordance with another embodiment;

[0017] Figure 6 is a perspective view of a dispenser in accordance with another embodiment;

[0018] Figure 7 is a perspective view of a dispenser in accordance with another embodiment;

[0019] Figure 8 is a back perspective view of an alternate embodiment of a dispenser, wherein the back wall portion is hingedly attached;

[0020] Figure 9 is a side cross-sectional view of an alternate embodiment of a dispenser;

[0021] Figure 10 is a side cross-sectional view of a dispenser in accordance with another embodiment;

[0022] Figure 11 is a side cross-sectional view of a dispenser in accordance with another embodiment;

[0023] Figure 12 is a perspective view of a dispenser in accordance with another embodiment;

[0024] Figure 13 a side view of the dispenser as shown in Figure 12;

[0025] Figure 14 is a perspective view of the dispenser as shown in Figure 12 in an opened position;

[0026] Figure 15 a side view of the dispenser as shown in Figure 14;

[0027] Figure 16 is a perspective view of a dispenser in accordance with another embodiment;

[0028] Figure 17 is a perspective view of a dispenser in accordance with another embodiment;

[0029] Figure 18 is a perspective view of a dispenser in accordance with another embodiment;

[0030] Figure 19 is a perspective view of a multi-piece package in accordance with embodiment; and

[0031] Figure 20 is a perspective view of a multi-piece package in accordance with another embodiment;

[0032] Figure 21 is a side perspective view of a dispenser in accordance with another embodiment;

[0033] Figure 22 is a front perspective view of the dispenser as shown in Figure 21;

[0034] Figure 23A is perspective view of a portion of the dispenser in accordance with an embodiment, wherein another portion has been removed to show the interior of the dispenser;

[0035] Figure 23B is a perspective view of another portion of the dispenser that may be coupled with the portion in Figure 23A to provide the dispenser;

[0036] Figure 24 is perspective view of a portion of the dispenser in accordance with another embodiment, showing the interior of the dispenser;

[0037] Figure 25 is a front perspective view of the dispenser as shown in Figure 24, wherein a multi-piece package, in accordance with an embodiment, has been inserted into the dispenser;

[0038] Figure 26 is a cross-sectional view of an alternate embodiment of a dispenser;

[0039] Figure 27 is a perspective view of a portion of the tension assembly in accordance with an embodiment;

[0040] Figure 28A and 28B are perspective views of components of the coupling member for use in the dispenser, such as shown in Figure 25, in accordance with an embodiment;

[0041] Figures 29A and 29B are perspective views of a dispenser and multi-piece package in accordance with an embodiment; and

[0042] Figure 30 is a perspective view of a multi-unit dispenser in accordance with another embodiment.

Detailed Description of the Invention

[0043] The present disclosure provides a multi-piece dispenser for consumable products, such as for example, confectionary products. In one aspect, the multi-piece dispenser may be used for dispensing chewing gum. The disclosure further provides alternate embodiments of a dispenser and a multi-piece package, as well as a method for manufacturing the multi-piece package.

[0044] The dispenser 10, in accordance with one aspect, includes a housing 14 containing a multi-piece package 12 of confectionary product, such as for example chewing gum G. The term "multi-piece package" is herein used to mean a strip-like structure having a plurality of individual pieces of gum, wherein each individual piece of

gum is sealed within a material (e.g., film, blister package) and coupled together to form the strip-like structure (i.e., a bandoleer). The multi-piece package may have a predefined width and length. The individual pieces may further be divided by a tear line, such that upon the exertion of force, the individual pieces may be separated from one another. The multi-piece package may be provided in a roll-like configuration or an accordion style configuration, such as discussed in further detail below. Alternate configurations may also be used for packaging and dispensing depending on the type of confectionary being used, such as for example, alternate configurations and sizing may be used depending on if tab, stick or pellet chewing gum is being packaged and sold for use with the dispenser. Moreover, the multi-piece package may include a variety of individual gum pieces in a number of different piece counts, such as for example, 25, 30, 60, 90 or any number of pieces as desired by the consumer.

[0045] Alternatively, the confectionary pieces may be oriented in various configurations relative to one another. As shown, the confectionary pieces may be oriented in a long side/edge orientation. In another embodiment, the confectionary pieces may be configured within the package such that the short side/edge is leading (i.e., the individual pieces are positioned end to end) within the bandoleer.

[0046] Although the Figures and related disclosure are directed to packaging and dispensing of confectionary products, in particular chewing gum, the present techniques may be directed to various applications, including but not limited to other consumable products, alternate confectionary products such as mints, candy (including hard, chewy or gummy candy), chocolate and/or any other confectionary. Moreover, alternate configurations of the dispenser, such as, for example, those discussed below, may be utilized including but not limited to, cube shaped, rectangular shaped, triangular shaped, bean shaped, circular shaped, clam shell shaped, cone shaped, or any other shape suitable for use as a dispenser, or

combinations thereof. In addition, various combinations of dispensers may be coupled together, such that a dual (double) or triple dispenser may be provided. Accordingly, the Figures are exemplary and illustrate various aspects of the present disclosure.

[0047] In one embodiment, the dispenser may be designed to be a refillable dispenser. This allows for the consumer to maximize the use of the dispenser and to not increase the waste associated with discarding the entire dispenser. In another embodiment, the dispenser may not be refillable. In the event that the dispenser is not refillable, the consumer would discard the dispenser upon using the entire contents of the multi-piece package.

[0048] In accordance with one aspect, the dispenser has a housing defining an inner chamber for storing the multi-piece package of confectionary product. The housing may further include a plurality of wall members, as shown in the provided Figures. In one embodiment, the wall members forming the housing may be integrally formed together as one unitary piece or part. Alternatively, in another embodiment the wall members may be separately manufactured and then hingedly couple to one another and/or fit together upon assembly (i.e., such as a lid or other type configuration). Alternatively, in another embodiment, various manufacturing and assembly methods may be used for the assembly of the walls to form the housing. Accordingly, the housing of the present disclosure may be configured in alternate ways depending on the materials used for assembly of the dispenser. Moreover, the wall members may further include structural elements, including for example, but not limited to elements *(i. e.,* ribs) to enhance or increase strength and/or decrease thickness of the wall members.

[0049]In general, the dispenser may be formed of various materials, including for example but not limited to, plastic or plastic-like material, molded pulp, paperboard,

as shown in Figure 6, that includes a portion 111 and a portion 113 that a hingedly H coupled together to form housing 114 defining inner chamber 116. Upon closing portion 111 and portion 113, slot 120 may be defined for receiving the end portion of the multi-piece package. The slot 120 is non-threading. Retention tab(s) 132 may further be disposed along the length (1) of the slot. In one embodiment, the retention tab(s) 132 are each integrally formed each portion 111 and 113, respectively. When portion 111 and portion 113 are joined to form dispenser 110, a retention member 130 is formed through the combination of retention tabs 132.

[0057] Alternate embodiments further include a dispenser having a triangular or pyramidal shape, as well as other shapes/configurations, as further illustrated by dispensers 210, and 310 in Figures 7-11.

[0058] The triangular or pyramid shaped dispenser 210 may be used in combination with the multi-piece package 12 previously discussed. In accordance with one embodiment, as shown in Figures 7-10, dispenser 210 includes a housing 214 defining an inner chamber 216 for storing the multi-piece package of confectionary products, i.e., chewing gum. A plurality of wall members 218 may be used in combination to form the housing 214. The wall members 218 may be integrally formed as one unitary piece or separately manufactured for assembly. For example, as shown in Figure 7, wall 218 may be a separate end cap or hingedly coupled to form the housing 214. Alternatively, as shown in Figure 8, back wall 218" may be hingedly coupled to form housing 214. More specifically, as shown in Figure 9, dispenser 210 may further include a hinge (H) wherein wall member 218" may be hingedly attached or coupled to wall member 218. Accordingly, wall member 218" may be de-coupled (i.e., separated) from wall member 218' along line (L), therein providing access to inner chamber 216. Each of these configurations allow for the consumer to readily access inner chamber 216 for placement of the package (not shown) within the dispenser.

combination with the inner surface of the outer wall 318 to form retention member 330. The retention tab 332 further includes a curved portion 333 that facilitates the movement of the package (not shown) within the dispenser 310 and through slot 320. An additional guide member 334 may be integrated within the inner chamber 316 of the housing 314. The guide member 334 is provided to prevent the package from becoming caught on retention member 332 within curved portion 333. Guide member 334 may be designed in different lengths, forms or configuration to facilitate the movement of the package within the dispenser.

[0062] Additional embodiments of the dispenser may further include alternate slot configurations. Such alternate slot configurations provided additional access to the multi-piece package by the consumer or provided alternate methods for tearing the individual pieces from the multi-piece package.

[0063] Another embodiment may include a dispenser 510 having a multi-piece configuration (such as, for example, the bean shaped configuration), wherein the pieces are hingedly connected to one another, as further illustrated in Figures 12¬15. As an example, the bean shaped dispenser 510 may be used in combination with the multi-piece package 12 as previously discussed. Accordingly, dispenser 510 includes a housing 514 defining an inner chamber 516 (as shown in Figures 14 and 15) for storing the multi-piece package of confectionary products, i.e., chewing gum. A plurality of wall members 518 may be used in combination to form the housing 514. The wall members 518 may be integrally formed as one unitary piece or separately manufactured for assembly. More particularly, in one embodiment, dispenser 510 may further include a side portion 511, a side portion 513, and a base portion 515. Portions 511 and 513 may be hingedly attached (H) to base portion 515. The base portion 515 is stationary, whereas portions 511 and 513 move relative to the base portion thereby providing access to the inner chamber, as illustrated in Figures 14 and 15. A slot 520 is further provided for receiving the end portion of the

includes a portion 711 and a portion 713 hingedly attached (H) to one another. The combination of portion 711 and portion 713 form slot 720 for receiving and retaining the multi-piece package. Although not shown, a retention member, including at least one retention tab, may be integrated and used in connection with slot 720.

[0066] Furthermore, in an alternate embodiment, dispenser 810 is provided in a circular or ring shaped configuration. In one embodiment the dispenser 810 may be hollow in the center, therein providing a ring shaped configuration. Alternatively, the dispenser may have full formed side portions, as shown in Figure 18, therein providing a circular shaped configuration. Moreover, in another embodiment, a circular dispenser may be provided. In accordance with an embodiment, dispenser 810 includes a housing 814 defining an inner chamber (not shown). The housing 814 further includes a body portion 811 and a side portion 813. The side portion 813 may be hingedly coupled to body portion 811, or alternatively may be a separate portion that engagingly couples to the body portion 811. The body portion 811 further defines a slot 820 for receiving and retaining the multi-piece package. The side portion 813 is provided to enclose housing 814 and secure the multi-piece package within the dispenser 810.

[0067] As previously discussed, the present disclosure is directed to a dispenser for use with a multi-piece package. Moreover, the disclosure relates to the multi-piece package and the method of manufacturing the multi-piece package for dispensing. Overall, the multi-piece package is directed to a strip-like structure containing a plurality of individual pieces of confectionary product, in particular, chewing gum. The individual pieces of gum may be separately sealed but are coupled together to form the multi-piece package, also referred to as a bandoleer. In order to separate the individual pieces from one another, a tear line T may be provided, such as those shown in Figures 19 and 20. As can be seen in Figure 19, the multi-piece package 12 includes individual gum pieces G that enclosed by a material 13, such as for

example, a film that is used to seal the gum pieces. Alternative, the gum pieces may be enclosed in individual blister-type packages that are coupled together to form a roll-like bandoleer (as shown, for example, in Figure 21-22, 25). Each of the individual gum pieces are separated by a tear line T. The tear lines may be perforated along the entire length of the tear line or just a portion thereof. Alternatively, tear notches T' may be provided along the tear line, such that a tear member (i.e., tear member 40 shown in Figure 5) may further assist in separating the individual pieces from one another. Alternatively, the tear notch T' may be offset from the tear line T, such that the individual gum pieces may be separated from one another and then a tear notch is provided within the package to open the package. In general, the tear notch T' may be provided throughout various locations of the package for opening the package. Alternatively, a consumer may easily tear the individual pieces apart based on either the perforated tear line T, as shown in Figure 19, or the additional tear notches T' provided on the ends of the individual wrapped pieces, as shown in Figure 20. Although Figures 19 and 20 show the individual gum pieces coupled together on the length of the gum pieces, alternate configurations are considered, such that the tear line is repositioned and the gum pieces are placed end to end within the package.

[0068] Alternate embodiments of the dispenser may further include those shown having a blister-type multi-piece package, as shown for example in Figures 21- 30. As can be seen throughout the Figures, dispenser 1110 may be configured to retain a multi-piece package 1112 designed to enclose individual pieces of pellet-type gum forms within individual blister packages P. The individual gum pieces are providing in package 1112 may be separated by a tear line T. Alternatively, each of the gum pieces could be manually separated by a consumer through mechanically severing *(i. e.,* cutting) the pieces apart. In accordance with an embodiment, dispenser 1110 includes a housing 1114 having a body portion 1111 and a side portion 1113 (alternately, the side portion 1113 may

[0071] In accordance with an embodiment, body portion 1111 and side portion 1113, as shown for example in Figures 23A and 23B, may be coupled together to form dispenser 1110. As previously suggested, side portion 1113 and body portion 1111 may be secured either though a snap-fit, locking or any other type of connection means known by one of ordinary skill in the art (such as for example, incorporating connection members 1125 in side portion 1113 for engagement with receiving portions 1127 provided by body portion 1111). As a result, side portion 1113 and body portion 1111 may be separated for refilling of the dispenser and then subsequently reconnected. Moreover, side portion 1113 may further include alignment members 1128 that further help guide or align side portion 1113 with body portion 1111 prior to attachment of the two portions together.

[0072] As previously discussed, a slot 1120 may be integrated as part of body portion 1111 allowing package 1112 to extend outside of the housing 1114 resulting in end portion 1122 of package 1112 being readily accessible to either a consumer or vendor. Alternate placements of slot 1120 may be considered within housing 1114 depending on the needs of the consumer and for manufacturing capabilities. Slot 1120 may be configured as threaded (as shown in Figures 23-25) but alternatively the slot may be non-threaded in accordance with the previously described embodiments.

[0073] Dispenser 1110 may further include a retention member as previously disclosed in relation to alternate embodiments wherein various retention members (although not shown) may be integrated with the slot 1120 to further support and retain package 1112 within the dispenser 1110. As shown in Figures 23A, 24-25, the retention member may further include guide members 1131 to further facilitate the movement of package 1112 into slot 1120. Alternate configurations of guide members 1131, although not shown, may further include for example, flexible members that allow for flexing of the member 1131 relative to the package, as well as the incorporation of foam or other related materials that would

including but not limited to plastic, paperboard or other semi-durable type materials that are known by one of ordinary skill in the art.

[0077] As previously suggested, a securing assembly 1153 is further provided as part of the tension assembly 1150. As seen in Figures 24-26, in particular Figure 26, the securing assembly 1153 is one example of how to secure the tension assembly 1150 to body portion 1111, but alternate configurations of the securing assembly are contemplated. The securing assembly 1153 attaches the body portion 1111 of dispenser 1110 to package 1112. In accordance with one embodiment, as seen in the provided Figures, securing assembly 1153 includes a connection member 1170 (such as for example, a screw) provided through the bottom surface 1119 of body portion 1111 into inner chamber 1116 and through the center of outer portion 1151 of tension assembly 1150. A spring or spring-like member 1171 may be positioned over the connection member 1170 and a securing member 1173 (such as for example, a wing nut) is positioned over the spring to interconnect and retain all of the components of the securing assembly 1153. Although specific components of the securing assembly have been described and shown, alternate components having similar or equivalent functionality may be used to secure the tension assembly 1150 within dispenser 1110.

[0078] Alternate configurations of dispenser 1110 may further provide other functional elements to be incorporated within the outer surface of the housing 1114 of the dispenser 1110. Such elements would include, for example but are not limited to, a clock or any other type of display like window or area that would allow a retailer to use the dispenser for additional purposes.

[0079] Another embodiment further includes an alternate form of a dispenser 1210, as shown in Figures 29A and 29B. Accordingly, one embodiment

may further provide a hand-held or personal configuration that incorporates a blister package. In accordance with one of the embodiments, the handheld dispenser 1210 would include a coil-like configuration of a blister package 1212 and an opening 1220 that would allow for a consumer to access or withdraw a single blister. The opening 1220 could be defined by either a portion 1214a of the housing 1214 configured to either slide into the housing 1214 or be hingedly connected to the housing 1214. The hand-held configuration allows for increased sharing among individuals while at the same time maintaining freshness of the product enclosed within the blister package.

[0080] In another embodiment, there is included a multi-unit dispenser 1300, as shown in Figure 30, wherein separate dispensers 1310a, 1310b, and 1310c may be coupled together or integrated with one another to form a dispenser that has multiple different packages 1312a, 1312b, and 1312c. The multi-unit dispenser may be used to dispense different confectionary products either having different forms, flavors, or any other combinations. Accordingly, as an example, one dispenser could include a package for stick gum, while another dispenser includes gum in pellet form, and an additional dispenser could include an alternate confectionary product. Alternatively, as shown, each of the dispensers could include different pellet blister-type packages that have different flavors or products within the packages. The multi-unit dispenser may include at least one housing having individual slots for the separate packages or alternatively multiple housings may be provided that are coupled together, as known by one of ordinary skill in the art. Although Figure 30 shows three individual dispensers coupled together, such representation is exemplary by nature and alternate numbers of dispensers and packages may be integrated together depending on the desired form of the multi-unit dispenser. Moreover, the multi-unit dispenser may be provided in alternate shapes and sizes depending on the desired configuration of the dispenser.

[0081] The present disclosure further includes a method for manufacturing the multi-piece package of confectionary product. The multi-piece package includes a three-sided sealed configuration. Accordingly, a piece of material is provided having a predefined width and length. The material may include any type of material that creates an adequate barrier for protecting the confection product inside. Moreover, the material must also exhibit attributes, such as for example, being sealable, tearable, printable and cost effective. As a result, the material may include but is not limited to, the use of orientated polypropylene film. The piece of material is divided (although not physically divided) in half by a central line thereby dividing the material into two halves. A plurality of gum pieces are positioned on one half, such that each of the ends of the individual gum pieces are disposed adjacent to the central line of the film. The gum pieces are separated by a predetermined distance along the length of the film. Once the gum pieces are positioned, the other half (that does not have the gum pieces) is folded about the central line such that the folded half is placed on top of the half of the film that includes the individual chewing gum pieces. Subsequently, the material is sealed about the length and width of the material and between each of the individual gum pieces, such that the gum pieces have a three-sided seal. The fourth side is formed by the folding of the material about the central line. As a result a multi-piece package is created including individual pieces of gum having a three sided seal. The multi-piece package may then be used in connection with any of the various embodiments of the dispenser previously disclosed.

[0082] While the invention has been described with respect to certain preferred embodiments, as will be appreciated by those skilled in the art, it is to be understood that the invention is capable of numerous changes, modifications and rearrangements, and such changes, modifications and rearrangements are intended to be covered by the following claims. Moreover, the foregoing descriptions of specific embodiments of the present