

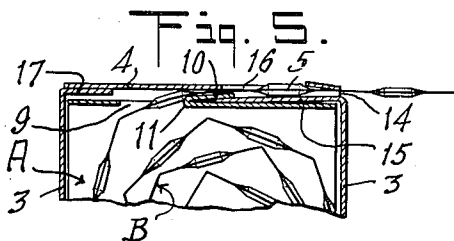
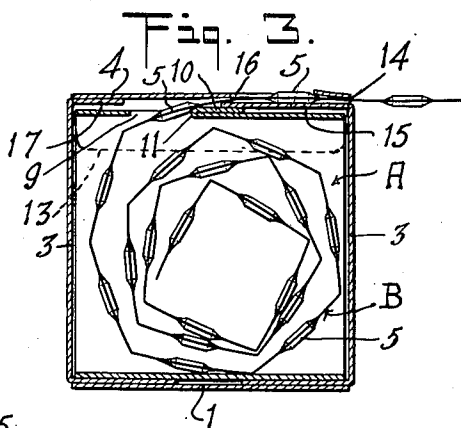
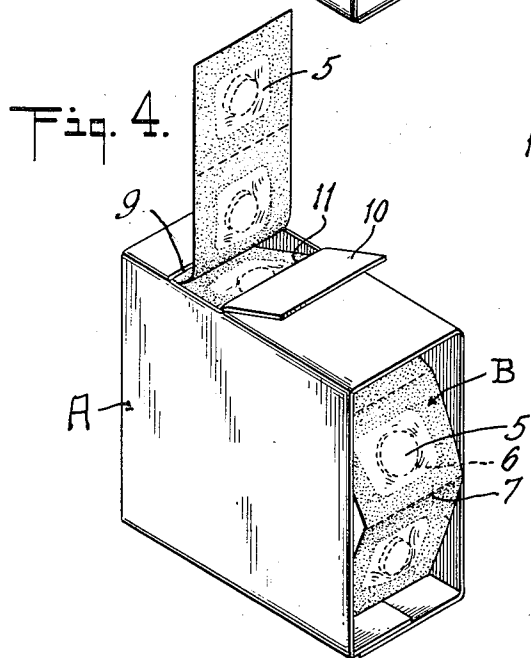
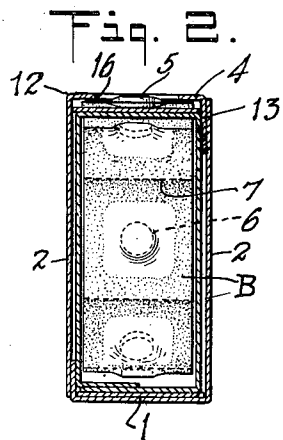
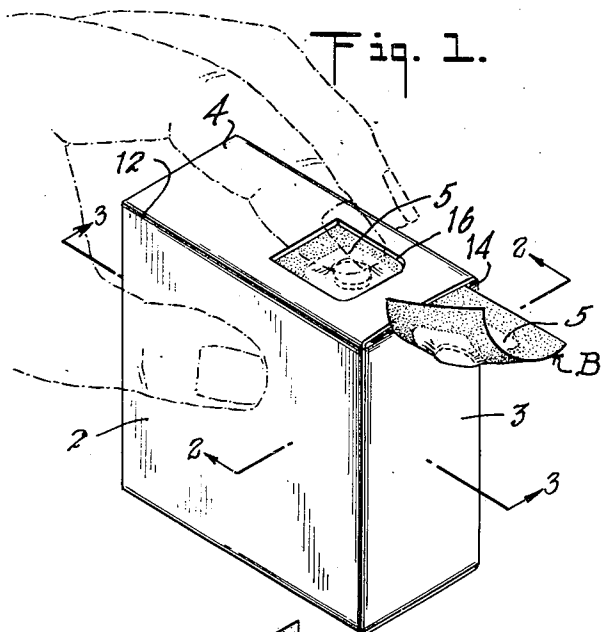
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DISPENSING CARTON FOR PACKAGE STRIPS

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DISPENSING CARTON FOR PACKAGE STRIPS

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This invention relates in general to a carton for shipping and dispensing a package strip of the type that has commodity containing compartments spaced longitudinally thereof and is severable between said compartments so that the compartments can be separated from the strip individually or in groups, as desired. Package strips of this type generally include two layers of flexible packaging material such as cellophane, rubber hydrochloride and metal foil, sealed together along their longitudinal edges and transversely to form compartments between the layers in which the commodity such as tablets, powder, paste or the like is enclosed. Generally the strips or layers of packaging material are weakened in lines transverse of the strip, for example by scoring, to facilitate separation of the packages.

The present invention especially contemplates a carton in which a package strip of the general nature described in spirally rolled condition can be enclosed for storage, shipping and handling and from which the strip can be pulled longitudinally through an opening to permit the package at the leading end of the strip to be removed from the carton and detached from the strip. Inasmuch as the package strip is easily severable or breakable along the weakened zones, it is essential that the carton be so constructed as to cause a minimum of tendency toward tearing of the package strip within the carton and also to produce a minimum of resistance to the pulling of the strip from the carton and thereby prevent accidental detachment of the packages. It is also desirable that the strip shall be easily and quickly removable out of the package and yet be yieldingly held against accidental unwinding and movement out of the carton and automatic backward movement into the carton.

A prime object of the invention is to provide a carton which shall accomplish the foregoing desirable functions and results and shall at the same time be simple and inexpensive.

Another object is to provide in a carton of this type novel and improved means for preventing accidental falling of the leading package on the strip out of the carton or backwardly into the carton.

A further object is to provide a dispensing carton which shall include a storage chamber with a discharge opening at one end thereof, a guide support within the chamber having a guide opening for guiding a package strip from the chamber to said discharge opening, and a novel and improved construction and arrangement of a guide lip on said guide support and means on the carton for reducing to a minimum the possibility of tearing of the package strip as it is pulled from said chamber and at the same time restraining the leading package on the strip from accidentally falling out of the carton or backwardly into the carton.

Other objects, advantages and results of the invention will be brought out by the following description in conjunction with the accompanying drawings in which—

Figure 1 is a perspective view of a dispensing carton constructed in accordance with the invention and illus-

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trating the manner of detaching a package from the package strip;

Figure 2 is a transverse vertical sectional view approximately on the plane of the line 2—2 of Figure 1;

Figure 3 is a longitudinal vertical sectional view approximately on the plane of the line 3—3 of Figure 1.

Figure 4 is a detached perspective view of the guide support and the package strip therein; and

Figure 5 is a fragmentary view similar to Figure 3 showing a modification of the invention.

Specifically describing the invention, the carton has been shown as rectangular and comprising a bottom wall 1, side walls 2, end walls 3 and a top wall 4. The bottom wall 1 may be of any suitable construction, preferably such that the bottom end of the carton can be opened and the top wall 4 is preferably also of such a nature as to permit opening and closing of the upper end of the carton to permit insertion and removal of the package strip.

The carton has within it a chamber that is rectangular in both longitudinal and transverse cross section and of such dimensions as to enclose within it a guide support A for holding and guiding a package strip B that is shown as comprising two layers of flexible packaging material such as cellophane or metal foil, sealed together along their longitudinal edges and transversely to form compartments 5 between the layers in which the commodity such as tablets 6 is enclosed. The compartments with their commodities form protuberances on and spaced longitudinally of the strip and preferably the strip is weakened as by scoring 7 between the compartments to facilitate severing of the individual packages from the strip. The guide support A comprises a tube of cardboard or the like of the same shape and dimensions as the interior of the storage chamber in the carton and has a guide opening 9 in one wall through which the leading edge of the package strip is pulled outwardly as best shown in Figures 3 and 4. A guide lip 10 extends from said wall of the guide support and provides a rounded fold 11 at the edge of the guide opening 9 over which the package strip must slide during its movement from the storage chamber through a discharge opening that is provided at the top of the carton.

As shown, the top wall 4 of the carton is hinged to one side wall as indicated at 12 and has a tuck flap 13 at its swinging edge for insertion between the other side wall and the guide support A as shown in Figure 2. The top wall meets one end wall 3 at right angles and an opening 14 is provided at the zone of intersection of said walls through which the leading end of the package strip is withdrawn from the carton; and preferably said end wall 3 has an intumed flap 15 that may overlie the free edge portion of the guide lip 10 as shown in Figure 3 or may underlie said free edge portion of the guide lip as shown in Figure 5. Thus, when the guide support and the rolled package strip A are inserted into the storage chamber as shown in Figure 3, the leading end of the package strip passes through the guide opening 9 over the folded edge 11 and the guide lip 10 and thence over the flap 15 beneath the top wall 4, the folded edge reducing to a minimum any catching of the protuberant compartments that might cause tearing of the strip within the carton, and the flap 15 providing a smooth unobstructed guide path for the packages between the top wall 4 and the end wall 3.

The lip 10 and folded edge may be of various constructions, but preferably the lip is cut out from the wall of the guide support to form the opening 9 and then folded outwardly as best shown in Figure 4.

Preferably the top wall 4 has a hole 16 offset from the guide opening 9 and adjacent the discharge opening 14, through which a human finger or other member may

be inserted into contact with the package strip for pushing the strip through the discharge opening. The material of which the package and the guide support are formed, and the dimensions of said parts are such that the lip 10 and flap 15 are normally biased toward the under side of the top wall 4 so as to apply friction to the package strip and thereby restrain accidental movement of the strip into or out of the carton. The package strip will be yieldingly gripped between the inner edge of the hole 16 and the inner free edge of the flap 15 so as to restrain unintended movement of the package strip outwardly or inwardly of the carton. The flap 15 and the top wall of the guide support will readily yield under pressure of the finger or the like on the package through the hole 16 so that the package can be readily pulled through the discharge opening; and the package may be torn along the edge of the top wall 4 as shown in Figure 1.

A second tuck flap 17 may also be provided on the end wall 3 opposite that to which the flap 15 is attached so that said flaps cooperate to hold the guide-support against pushing the top wall outwardly.

In the form of the carton shown in Figure 5, the package strip will be yieldingly gripped between the inner edge of the hole 16 in the top wall and the outer free edge of the lip 10 and the flap 15 tends to press the free edge of the lip toward the under side of the top wall 4.

The operation of the package probably will be understood from the foregoing, but it might be pointed out that the package strip will first be rolled or folded and inserted into the guide support as shown in Figure 4, whereupon the top wall 4 of the carton and the flap 15 will be opened and the guide support with the package strip will be inserted into the storage chamber of the carton. Then the leading end of the package strip will be pulled outwardly over the guide lip 10 and the flap 15 whereupon the top wall 4 will be swung into closed position with the tuck flap 13 between the side wall of the guide support and one side wall 2 of the carton. To discharge the package, a finger or the like is inserted through the hole 16 and pressed against the package strip, and at the same time the strip is pushed by the finger through the opening 14 until a scored zone 7 is aligned with one edge of the discharge opening 14. Thereupon the protruding package is torn along the weakened zone at the edge of said discharge opening as shown in Figure 1. When the pressure is released from the package strip, the end-most package will be pressed upwardly by the top wall of the guide support, the lip 10 and the flap 15 to hold the strip against movement either out of the discharge opening or back into the carton.

While the package strip has been shown as spirally wound, it is of course within the scope of the invention to arrange the package strip in other ways; for example, the package strip might be folded in a zig-zag fashion. Also those skilled in the art will understand that the structural details of the carton can be modified and changed within the spirit and scope of the invention.

What I claim is:

1. A dispensing carton for a flexible package strip that has commodity-containing compartments forming protuberances spaced longitudinally thereof and is severable between said compartments, said carton having walls forming a storage chamber for a plurality of layers of said package strip with two of said walls meeting at an angle and providing a discharge opening at the zone of intersection of said walls through which said package strip must move longitudinally out of said chamber, one of said

walls having a hole through which a member may be inserted for pushing said strip through said discharge opening, and a guide-support within said chamber having a wall which underlies the first-mentioned wall beneath said hole and has a guide opening at the opposite side of said hole from said discharge opening through which said strip must pass from said chamber and between said guide support and the first-mentioned wall, there being a guide lip connected at one end to said wall of the guide support at the edge of said guide opening over which said package strip must slide during its movement from the chamber to said discharge opening, said guide lip extending from said guide opening toward said discharge opening with its free edge adjacent to the inner edge of said hole, said guide lip normally being biased toward said top wall thereby pressing said package strip against said inner edge of said hole and applying friction to the package strip to restrain accidental movement of the strip into and out of the carton.

2. A dispensing carton as defined in claim 1 wherein said chamber is rectangular in both longitudinal and transverse cross-section and said guide support is a tube similar in size and cross-section to said chamber to receive and hold the layers of the package strip and has said guide opening in one of its walls.

3. The dispensing carton as defined in claim 1 wherein said carton has bottom, side and end walls and a top wall hinged to one side wall with a tuck flap inserted between the opposite side wall and said guide-support, and one of said end walls has a flap extending inwardly between said top wall and said guide-support beneath said hole in the top wall.

4. The dispensing carton as defined in claim 1 wherein said carton has bottom, side and end walls and a top wall hinged to one side wall with a tuck flap inserted between the opposite side wall and said guide-support, and one of said end walls has a flap extending inwardly between said top wall and said guide-support beneath said hole in the top wall and normally biased toward the top wall with its free edge portion adjacent the inner edge of said hole and in overlying relation to the free edge portion of said guide lip.

5. The dispensing carton as defined in claim 1 wherein said carton has bottom, side and end walls and a top wall hinged to one side wall with a tuck flap inserted between the opposite side wall and said guide-support, and one of said end walls has a flap extending inwardly between said top wall and said guide-support beneath said hole in the top wall and normally biased toward the top wall with its free edge portion adjacent the inner edge of said hole and in underlying relation to the free edge portion of said guide lip.

6. The dispensing carton as defined in claim 1 wherein said guide lip is integral with said wall of said guide-support and folded outwardly of said edge of the guide opening.

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