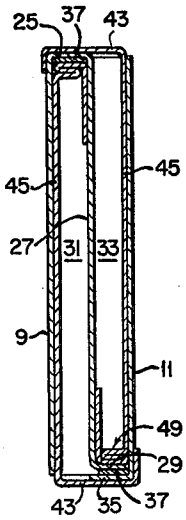
Oct. 29, 1963 E. J. ANTON 3,108,711

CIGARETTE PACKAGE WITH AN EJECTOR STRIP FOR EACH CIGARETTE

Filed July 19, 1961

Fig.4



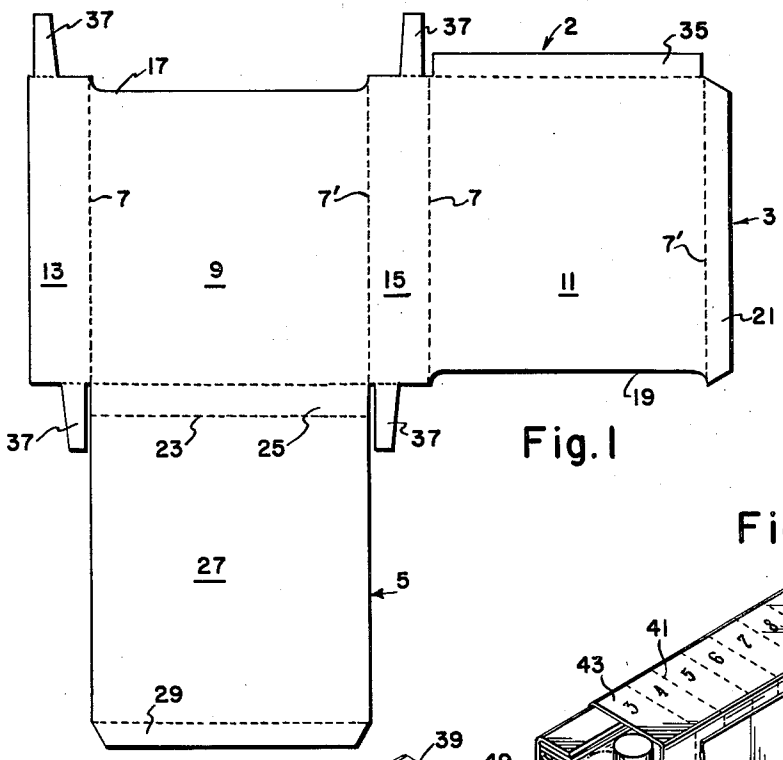
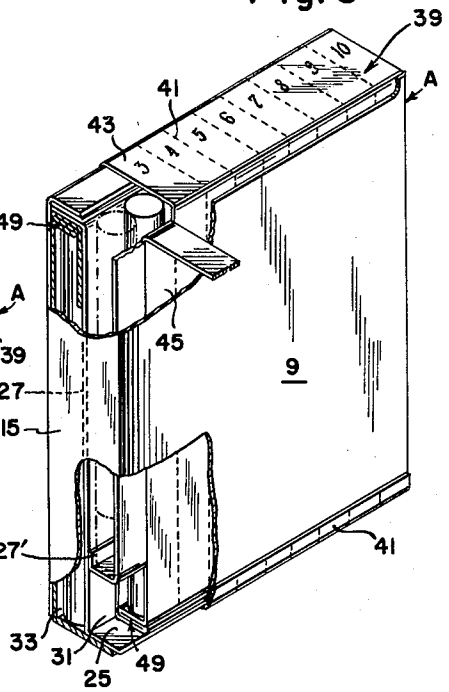


Fig.1

Fig.3



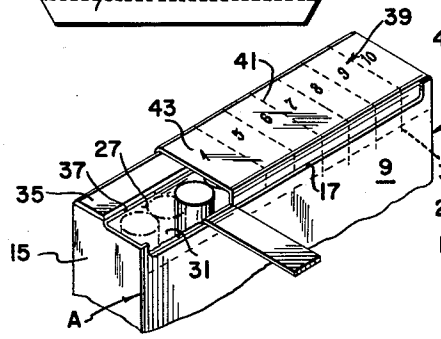
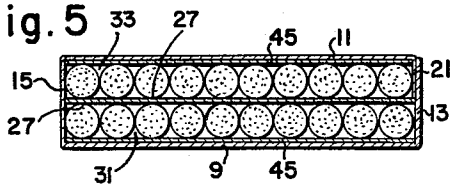


Fig.2

Fig.5



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CIGARETTE PACKAGE WITH AN EJECTOR STRIP FOR EACH CIGARETTE

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This invention relates to an improved package or container for cigarettes or similarly shaped articles.

Popular type packages of cigarettes have many undesirable features, predominant among which are a bulky and cumbersome shape which causes an unsightly bulge when carried in a pocket or purse, the fact that each individual cigarette is not firmly retained to prevent shifting of cigarettes remaining within the package once opened, and also that the package construction affords virtually no protection to the cigarettes as against accidental damaging by crushing.

As cigarettes have heretofore been packaged in multiple rows within a single-compartment package, cigarettes remaining within an opened package freely shift about and fall transversely within the package and across each other. As a result, the removal of cigarettes becomes progressively more difficult and bothersome and also the probability of damage by crushing of remaining cigarettes is increased. This free shifting of cigarettes within the package also loosens the tobacco filler which, in addition to causing "soft" ends to the cigarettes, spills from the package and into a pocket or purse to the great annoyance of the smoker.

There have been numerous attempts to overcome these disadvantages but each has failed, primarily because of the impractical approach and also because of the objectionable cost of manufacture and assembly of the particular package construction proposed.

This invention, therefore, is particularly directed to an improved package for cigarettes or similarly shaped articles wherein many of the undesirable features of popular type packages are avoided.

Among the objects of this invention is, therefore, to provide a package for cigarettes or other similarly shaped articles which is of compact design and simple to assemble and wherein each cigarette is fully protected against accidental damage irrespective of the number of cigarettes remaining in the package.

Another object of this invention is to provide a package for cigarettes or other similarly shaped articles wherein the cigarettes, from first to last, are individually and conveniently removed from the package without loosening or in any way disturbing cigarettes remaining within the package.

These and numerous other objects and advantages are achieved in accordance with one aspect of this invention by the provision of a package wherein cigarettes are packaged in contiguous, row-like fashion within one or multiple compartments. Opposing inside walls of each compartment are spaced to contact and gently pinch opposite portions of each cigarette so as to firmly and compactly retain each in position irrespective of the number of cigarettes remaining within the said compartment or any other compartment.

In accordance with another aspect of this invention, the package is formed from a precut and prescored blank which, when folded, includes a pair of distinct compartments each having a rigid bottom portion and an access opening at respective opposite ends so as to provide greater structural rigidity to the package. The access opening of each compartment is sealed by a flexible strip which coacts with the opposing inner walls and rigid bottom of the said compartment to maintain the cigarettes, irrespective of the number remaining therein, firmly in position. The flexible strip is perforated in tab fashion for

easy tearing in the plane of contact between adjacent cigarettes for individual access to each cigarette within the said compartment.

In accordance with yet another aspect of this invention, the flexible strip sealing each compartment extends downwardly along one inside wall of the compartment and underlies the row of cigarettes in folded fashion; the interior end of the flexible strip is adhesively connected substantially midway along the opposing inside wall of the compartment. In this instance, the flexible strip is perforated along its length to provide a number of separate ejector or elevating strips corresponding one to each cigarette. When the flexible strip is torn in tab-fashion and smoothly pulled, the perforated section within the compartment divides and the folded portion of the now-defined ejector strip extends whereby the cigarette is frictionally carried on the ejector strip and partially projected from the compartment. As the transverse dimension of the ejector strip is equal to the diameter of the cigarette, the portion thereof remaining within the compartment is in contact along a next adjacent cigarette and coacts with the package construction to maintain all cigarettes remaining within the compartment firmly in position.

A fuller appreciation of this invention will be had upon a consideration of the description hereinafter set forth in conjunction with the accompanying drawings wherein:

FIGURE 1 is a plan view of a blank cut and prescored to form a package in accordance with the present invention;

FIGURE 2 is a perspective view of one embodiment of this invention illustrating a package formed of the blank of FIGURE 1 with flexible sealing strip;

FIGURE 3 is a perspective view, partially exposed, of another embodiment of this invention illustrating a package formed of the blank of FIGURE 1 wherein the flexible sealing strip is adapted as ejector strips and with cigarettes in position therein:

FIGURE 4 is a vertical sectional view of the package shown in FIGURE 3;

FIGURE 5 is a longitudinal sectional view of the package shown in FIGURE 2.

Referring to the drawings in which like numerals indicate like parts in the several views and more particularly to FIGURE 1, 2 designates a blank of any suitable material, such as cardboard, etc., from which the package or container is formed. The blank 2 is cut and shaped to provide a substantially rectangular portion 3 having a rectangular portion 5 extending laterally from one of its longer edges whereby a substantially L-shaped structure is defined.

The rectangular portion 3 is scored or creased such as at 7 to define rectangular side wall sections 9 and 11 and also rectangular end wall sections 13 and 15. Side wall sections 9 and 11 are slightly undercut along opposite edges 17 and 19, respectively, to form a dropped-edge along opposite sides and at opposite ends of the formed package. See FIGURE 2. A tapered flap extension 21 defined by a scored line 7' along the lateral edge of side section 11 overlaps with and is adhesively connected to the side wall section 13 to close the sides and ends of the package.

Rectangular portion 5 is integrally hinged, along the bottom edge of rectangular wall section 9. Rectangular wall section 9 is aligned with and has transverse dimensions substantially equal to that of side wall section 11. The rectangular portion 5 is scored such as at 23 to define an elongated, rectangular bottom section 25, partition section 27 and a tapered flap extension 29. Partition section 27, when folded along scored line 23, is received within the sides and ends of the package to define a pair

of distinct packaging compartments 31 and 33. See FIGURES 2 through 5. Rectangular section 25 forms the main bottom of compartment 31.

An elongated, rectangular bottom section 35 is integrally hinged along the top edge of side section 11. When partition section 27 is received between side wall sections 9 and 11, flap extension 29 overlaps with and is adhesively connected to bottom section 35 to end-seal the second compartment 33.

Tapered wing extensions 37 are integrally hinged at diagonally-opposite portions of the shorter edges of side wall sections 13 and 15. As shown, the wing extensions 37 provided on the lower shorter edges of the side wall sections 13 and 15 are juxtaposed with the lateral edges, respectively, of the partition section 25. In the formed package, wing extensions 37 are received beneath and, if desired, adhesively connected to the inside faces of bottom sections 25 and 35, respectively, so as to provide greater structural rigidity to the fully formed package.

The particular configuration of blank 1, therefore, provides a package for cigarettes or similarly shaped articles including a pair of distinct packaging compartments 31 and 33 having rigid main bottoms and also access openings at opposite ends. The transverse dimensions of each of compartments 31 and 33 are such that opposing faces of partition section 27 and each of the side wall sections 9 and 11, respectively, contact and gently pinch opposite portions of cigarettes arranged therein in row-like, contiguous fashion so that each cigarette is individually and firmly retained in upright position within the respective compartments 31 and 33.

The package as shown in FIGURES 2 and 3, contains a normal complement of twenty cigarettes, i.e., ten cigarettes in each of the compartments 31 and 33, and is more elongated and of flatter shape than the popular type package now employed. However, due to the row-like contiguous arrangement of the cigarettes in the respective compartments 31 and 33, the overall size of the package is reduced to a minimum. Manifestly, the size and shape of the package may be varied so as to contain any number or size of cigarettes, e.g., standard or "king" size, or other similarly shaped articles.

As shown in FIGURE 2, flexible strips 39, for example, of tinfoil material, cellophane, etc., are adhesively connected along the interior portions of edge 17 at one end of the package and 19 at the other end of the package. These flexible strips 39 wrap over and are adhesively connected to the opposing outside face of side sections 11 and 9, respectively, so as to seal the access openings of compartments 31 and 33, respectively.

If desired, a wrapper or jacket, not shown, may be provided in lieu of or in addition to the flexible strips 39. Each flexible member 39, and also the wrapper if employed, is perforated such as at 41 in the contacting planes of adjacent cigarettes to define an individual cover tab or lid 43 for each cigarette. To remove a cigarette, therefore, a corresponding tab 43 is individually peeled and torn from over the package whereby only the end of that cigarette which is to be removed is exposed. Advantageously, a numerical indication is provided on each individual tab 43 whereby a current record is had of the number of cigarettes yet remaining within the package.

When a tab 43 has been peeled and torn, as shown, the end portion of the corresponding cigarette is explosed above edge 17. Slight compression applied at the points A—A along the top outside portion of the package reduces the pinching pressure on the cigarette, and facilitates a removal of the said cigarette from compartment 31. At this time, the untorn portion of flexible strip 39 prevents a bowing of the entire side section of the compartment to maintain all remaining cigarettes firmly in position. When this compressive pressure is released, the resiliency of the side wall sections 13 and 15 and end wall section 9 of compartment 31, prevents a subsequent shifting of remaining cigarettes.

The particular advantages of providing rigid bottoms and access openings at opposite ends of the respective compartments 31 and 33 in the formed package can now be appreciated. In the first instance, due to the single-row packaging technique, cigarettes irrespective of the number remaining in a compartment are prevented from shifting and falling over and across each other so as to make removal thereof bothersome. Also, the oppositely disposed bottom sections 25 and 35, and also wing extensions 37 provide rigidity to the formed package which virtually eliminates the possiblility that the ends of the package may be crushed or twisted one with respect to the other. As the cigarettes are firmly and compactly held in upright position at all times, such cigarettes are subjected, therefore, to only small compressive effects in situations which would normally crush and damage cigarettes contained in popular type packages. In addition, the resiliency of the walls of the individual compartments as well as that of the tobacco filler provides further protection against damage to the cigarettes.

FIGURE 3 further illustrates another embodiment of this invention wherein the flexible strips 39 are each adapted as a number of ejector strips to partially project individual cigarettes from the compartments 31 and 33, respectively. As shown, a flexible strip 39, in addition to sealing the access opening of compartment 31, extends downwardly between the row of cigarettes therein and the inside face of, for example, side section 9. The flexible strip 39 passes beneath and underlies the row of cigarettes and is adhesively connected at a substanially central portion of the inside face of partition member 27 at 27'. In effect, therefore, the flexible strip 39 cups the entire row of cigarettes contained in compartment 31. The flexible strip 39 is perforated in the plane of contact of adjacent cigarettes to define a series of ejector strips 45 corresponding one to each of the cigarettes in the compartment.

When flexible strip 39 is torn along a perforation and peeled over the top of the package, the torn portion 47 of the ejector strip 45 is of sufficient length to be conveniently grasped between forefinger and thumb and pulled outwardly. The application of a steady pull causes the ejector strip 45 to divide from the flexible strip 39 and travel upwardly to project the upper end of a cigarette cupped therein from the compartment. To reduce the tension on the ejector strip 45 at this time, that portion of the flexible strip 39 underlying the cigarettes is pleated to provide a series of folds 49. When ejector strip 45 is pulled from the compartment, these pleated folds 49 expand in accordion-like fashion whereby the cigarette is not caused to end-slide along the ejector strips. Rather, the cigarette is projected from the compartment primarily due to friction therebetween and the ejector strip 45. Accordingly, a substantially thin material may be employed as ejector strip without danger of tearing during the projecting process.

When a cigarette has been partially projected, the ejection strip is ripped along the rim of the compartment 31, as shown in FIGURE 3. The portion of an ejector strip 45 remaining in compartment 31, being equal in width to the diameter of a cigarette, substitutes for the cigarette when removed to serve as an effective barrier along a substantially central portion of a next adjacent cigarette to positively prevent a shifting of remaining cigarettes within the compartment.

As will be evident to those skilled in the art, my invention permits of various modifications without departing from the spirit thereof or the scope of the appended claims.

What I claim is:

1. A package for articles such as cigarettes comprising substantially rigid walls forming a receptacle for a plurality of said articles arranged in adjacent rows, a partition within said receptacle dividing the receptacle in article-receiving compartments, one compartment being open at

one end only of the receptacle, and the other compartment being open at the other end only thereof, a closure for the opposite end of each compartment, said closure for one compartment comprising a flap extending from said partition member and a flap extending from an adjacent wall of said receptacle and overlying said first-mentioned flap, tabs adhesively secured to said flaps between the same, the closure for the other compartment comprising a section at the side of said partition opposite from the flap and tabs adhesively secured to said section, and a removable flexible closure for the open end of each compartment.

2. A package for articles such as cigarettes comprising substantially rigid walls forming a receptacle for a plurality of said articles arranged in adjacent rows, a partition within said receptacle dividing the receptacle in article-receiving compartments, one compartment being open at one end only of the receptacle, and the other compartment being open at the other end only thereof, a closure for the opposite end of each compartment, a flexible ejector strip in each compartment attached to said partition adjacent to and spaced from the closed end thereof, folded in accordion form adjacent said closed end and thence extending to the open end of each said compartment in spaced relation to said partition to provide the space for the reception of a plurality of articles of the character hereinabove referred to, said accordion-like portion of said closure being adapted to support said articles, and each said ejector strip being divided into severable sections whereby each section may be withdrawn from the compartment in which it is located to individually withdraw the articles from the compartment.

3. A package for articles such as cigarettes comprising oppositely arranged relatively narrow wall sections and oppositely arranged relatively wider wall sections, a partition member substantially coextensive with said wider wall sections arranged parallel thereto and dividing the package into two article receiving compartments, each said compartment being open at one end and closed at the other end, the closed end of one compartment being formed by overlapping flaps extending from said partition and said relatively wider wall section, tabs carried by the relatively narrower wall sections and extending between said flaps and adhesively securing the same together, and the closure for the other compartment comprising a narrow wall section projecting from the partition at the side opposite the flap, and tabs on an adjacent pair of narrow sides and overlying the narrow wall section.

4. A package for articles such as cigarettes comprising substantially rigid walls forming a receptacle for a plurality of said articles arranged in adjacent rows, a partition wall within said receptacle dividing the receptacle into article-receiving compartments, one compartment being open at one end only of the receptacle, and the other compartment being open at the other end only thereof, a closure for the opposite end of each compartment, a flexible ejector strip in each compartment attached to one of said walls forming said compartment adjacent to and spaced from the closed end of said compartment, folded in accordion form adjacent said end and thence extending to the open end of each compartment in spaced relation to the wall to which it is attached to provide the space for the reception of a plurality of articles of the character hereinabove referred to, said accordion-like portion of said closure being adapted to support said articles, and each said ejector strip being divided into severable sections whereby each section may be withdrawn from the compartment in which it is located to individually withdraw the articles from the compartment.

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