

March 17, 1964

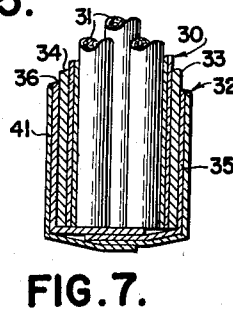
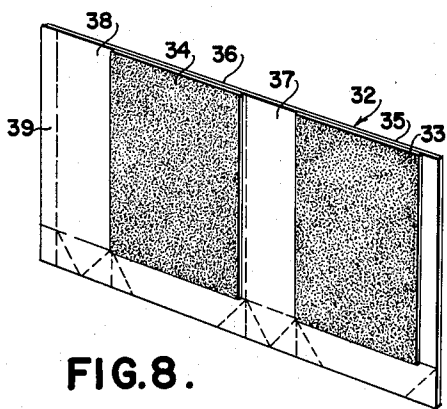
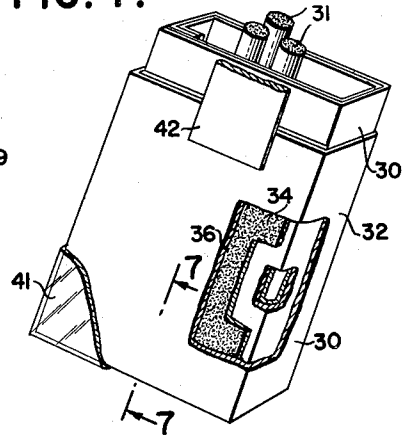
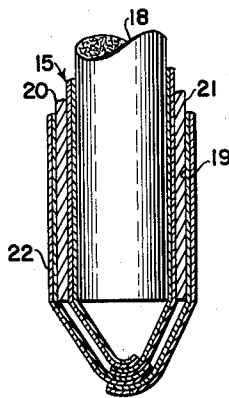
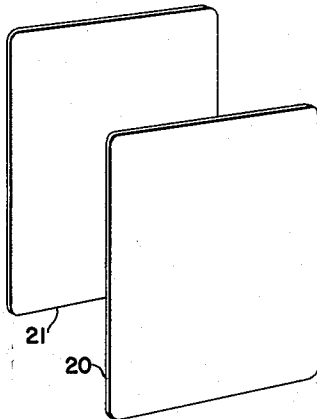
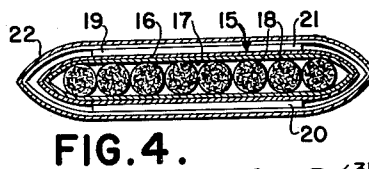
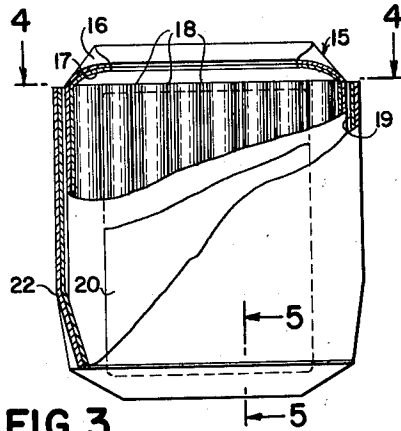
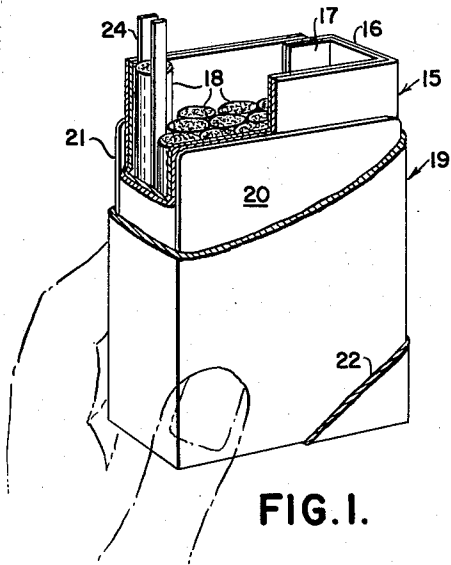
J. V. KEATING

3,125,213

SELF THINNING COLLAPSIBLE CIGARETTE PACKAGE

Filed Sept. 14, 1959

10 Sheets-Sheet 1



INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*

ATTORNEY

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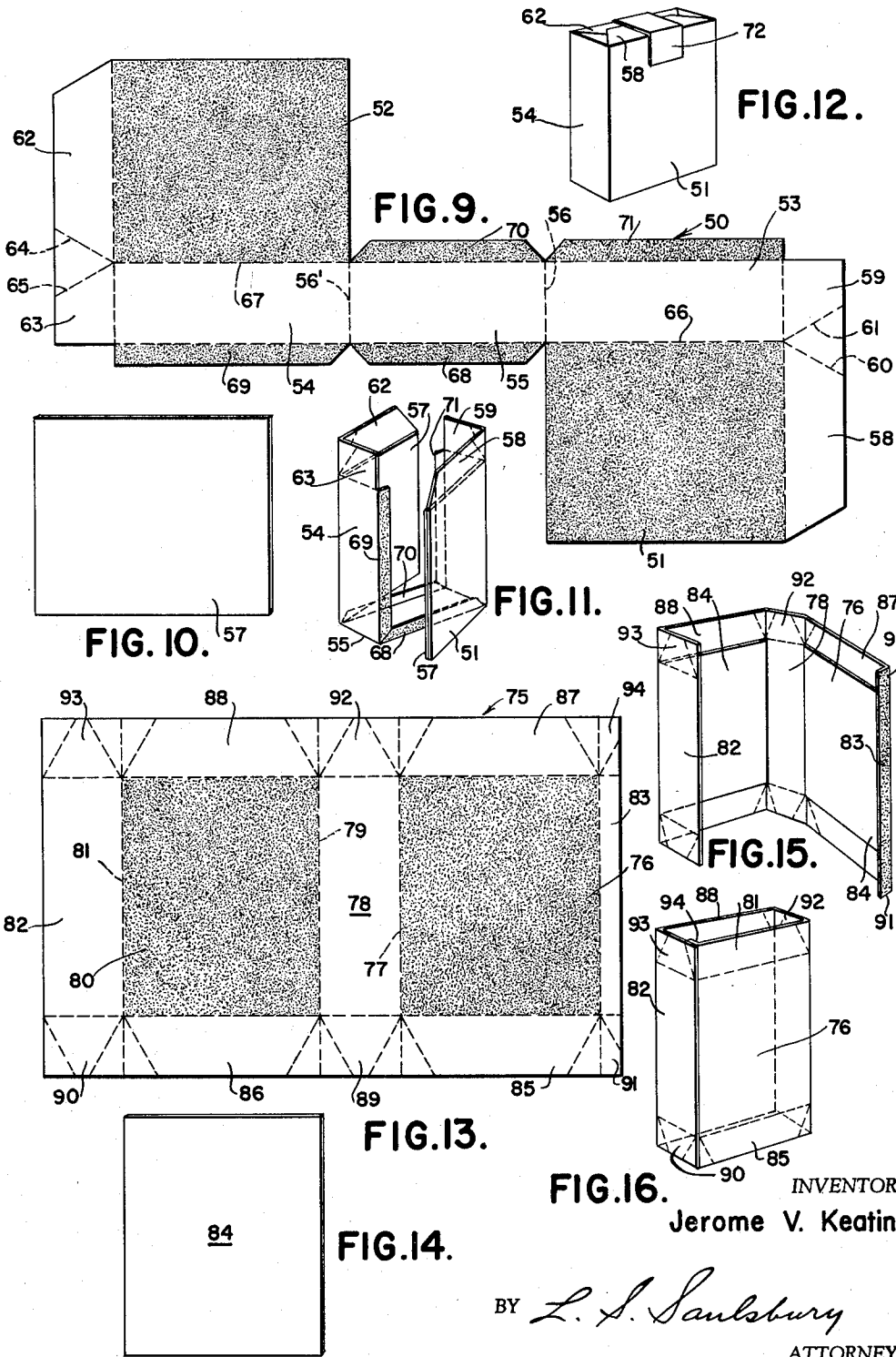
J. V. KEATING

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SELF THINNING COLLAPSIBLE CIGARETTE PACKAGE

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10 Sheets-Sheet 2



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Jerome V. Keating

BY *L. S. Saulsbury*

ATTORNEY

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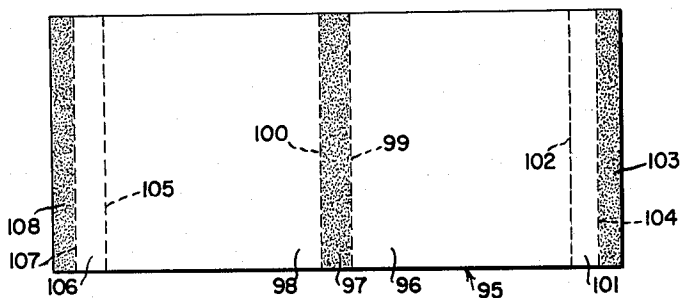


FIG. 17.

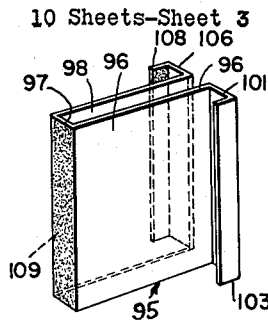


FIG. 18.

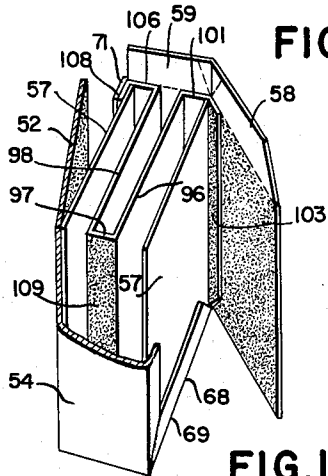


FIG. 19.

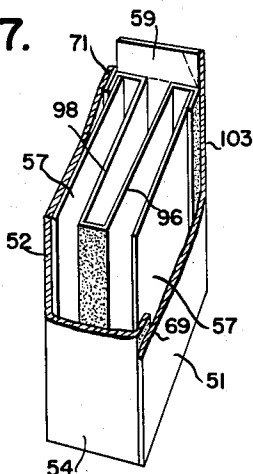


FIG. 20.

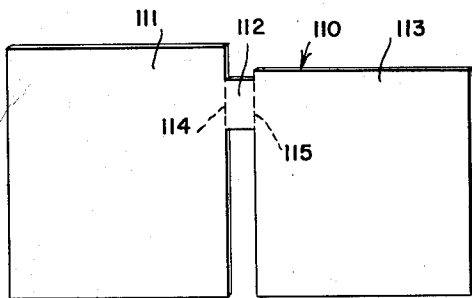


FIG. 21.

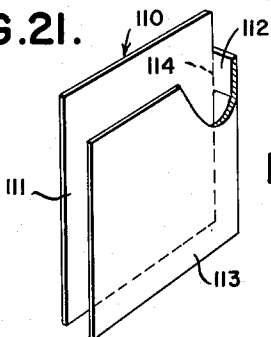


FIG. 22.

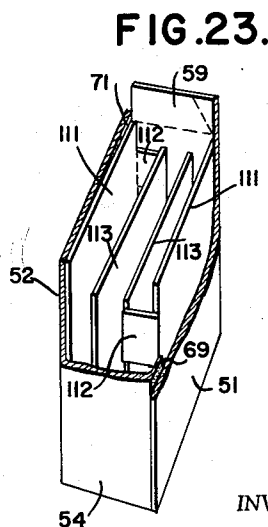


FIG. 23.

INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*
ATTORNEY

March 17, 1964

J. V. KEATING

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10 Sheets-Sheet 4

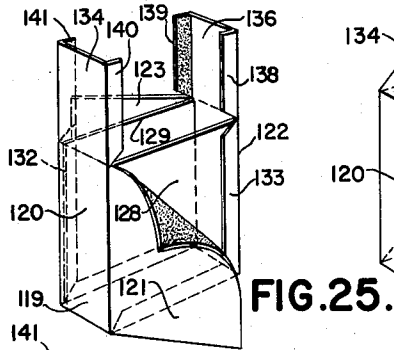


FIG. 25.

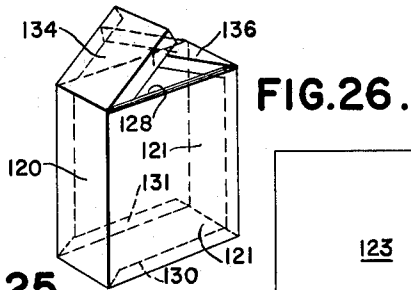


FIG. 26.

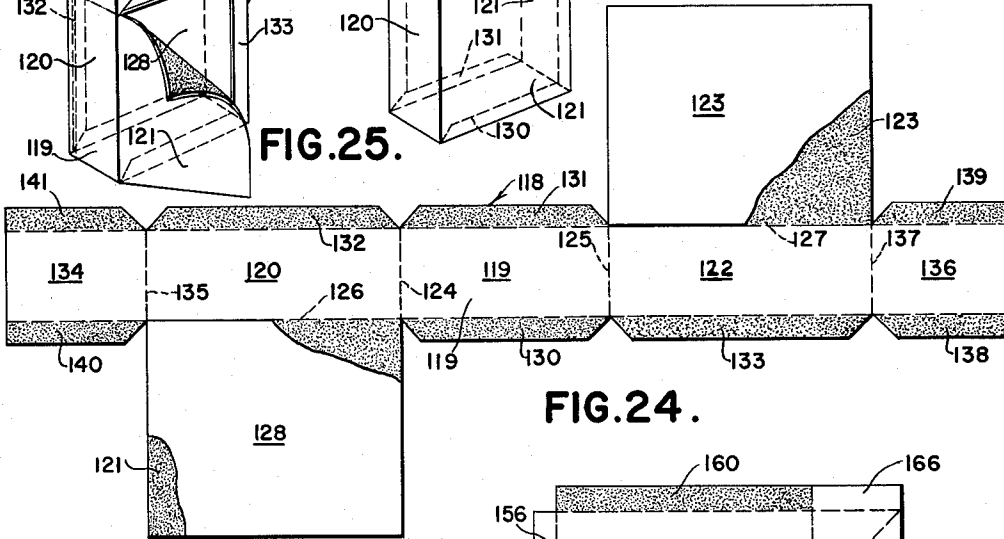


FIG. 24.

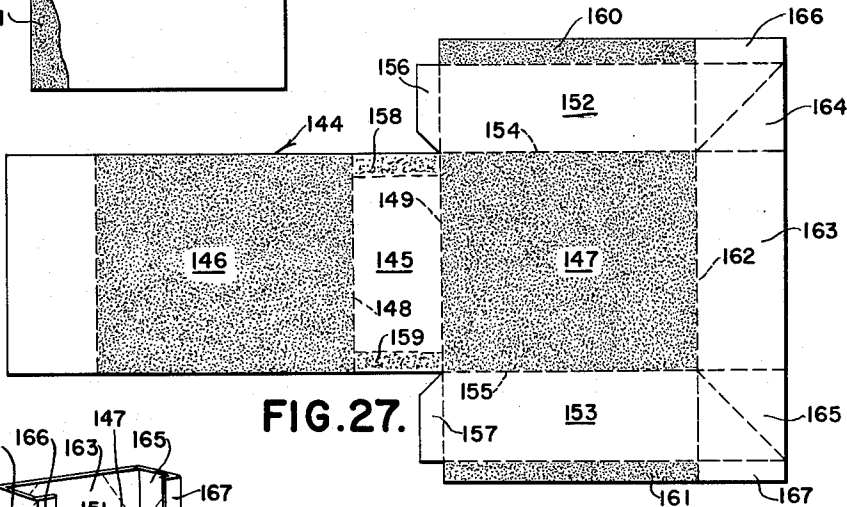


FIG. 27.

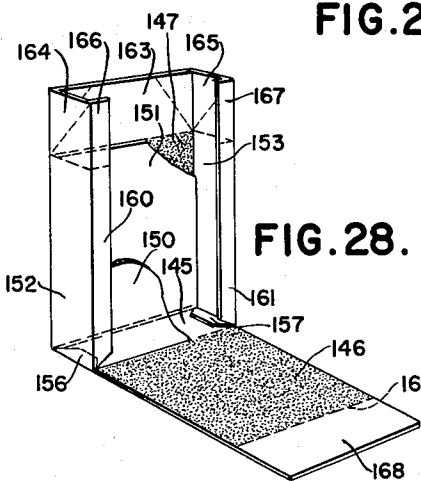


FIG. 28.

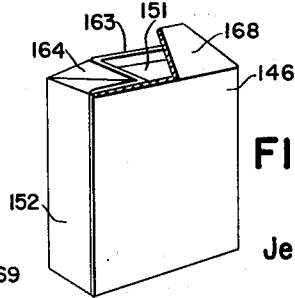


FIG. 29.

INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*
ATTORNEY

March 17, 1964

J. V. KEATING

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10 Sheets-Sheet 5

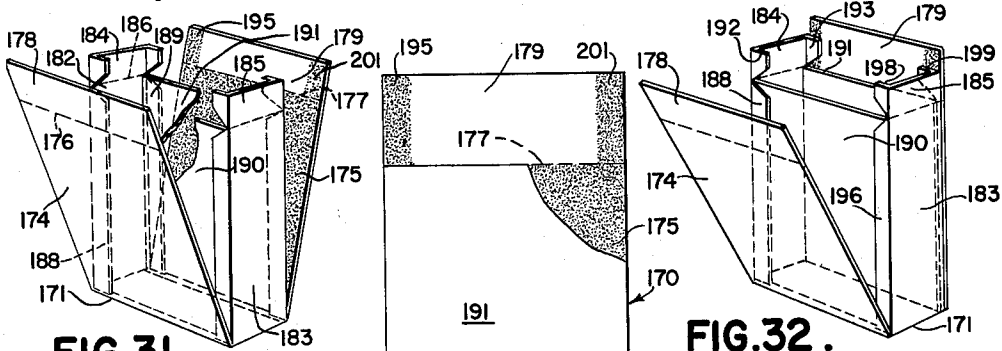


FIG. 31.

FIG. 32.

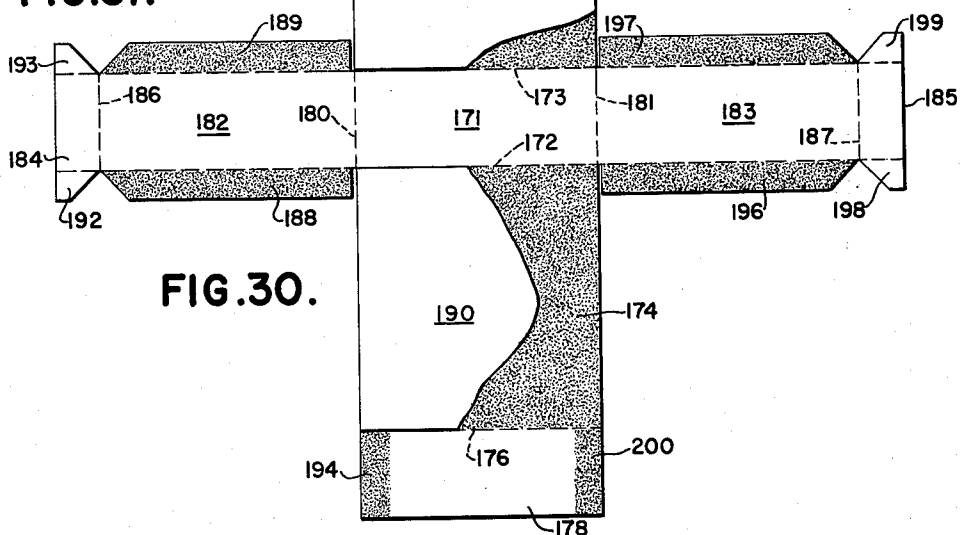


FIG. 30.

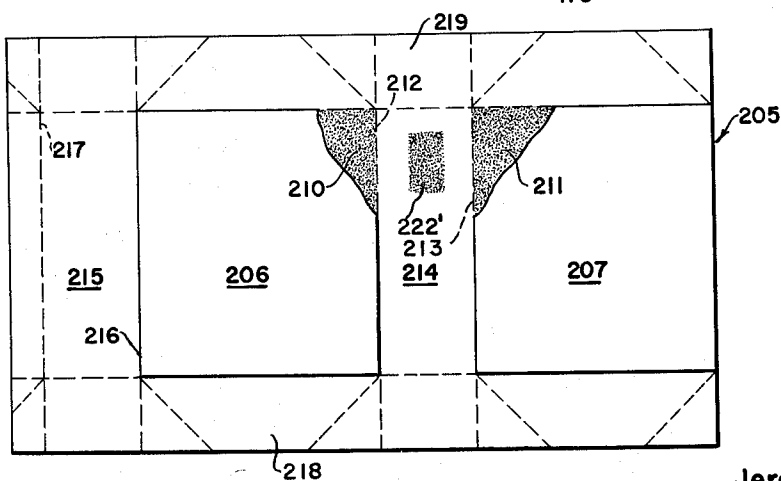


FIG. 33.

INVENTOR

Jerome V. Keating

BY

L. S. Saulsbury

ATTORNEY

March 17, 1964

J. V. KEATING

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10 Sheets-Sheet 6

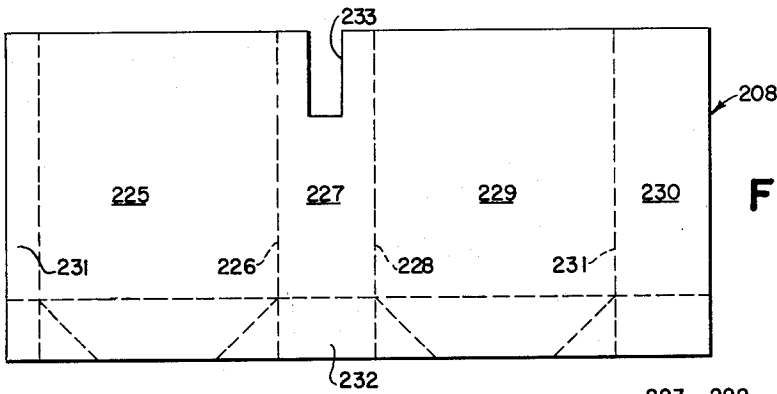


FIG. 34.

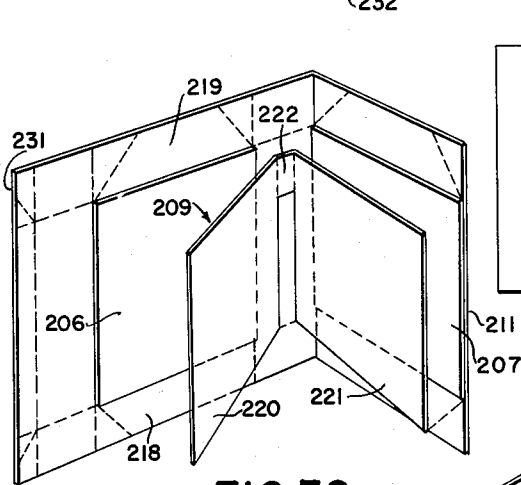


FIG. 36.

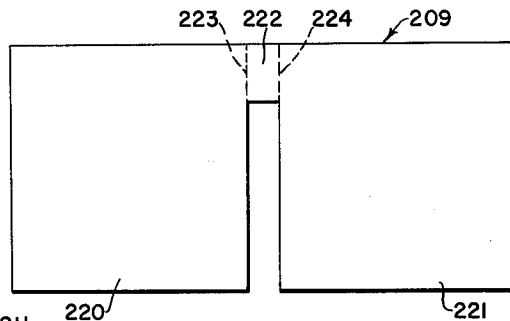


FIG. 35.

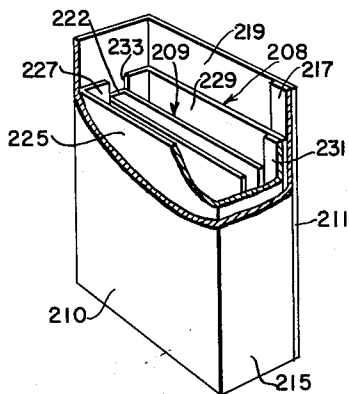


FIG. 38.

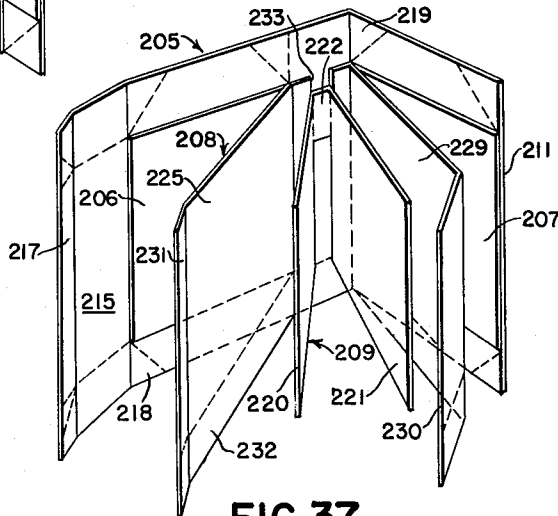


FIG. 37.

INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*
ATTORNEY

March 17, 1964

J. V. KEATING

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10 Sheets-Sheet 7

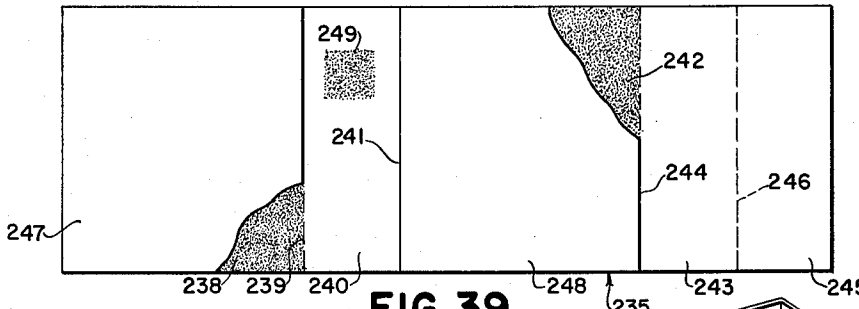


FIG. 39.

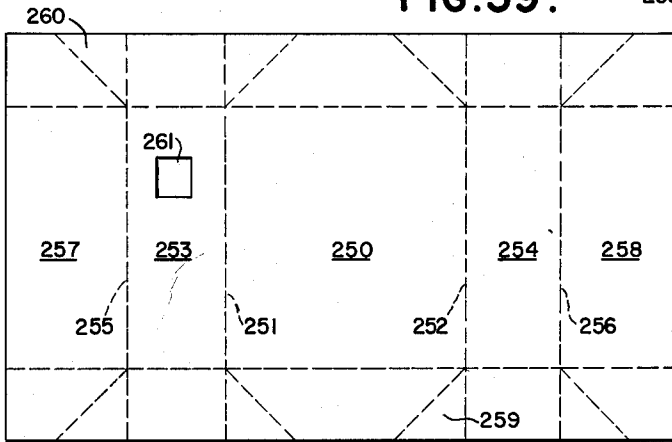


FIG. 40.

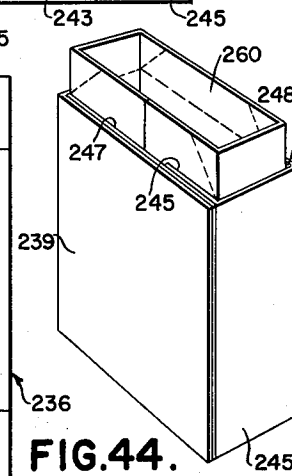


FIG. 44.

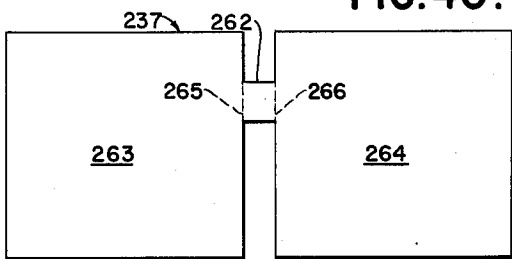


FIG. 41.

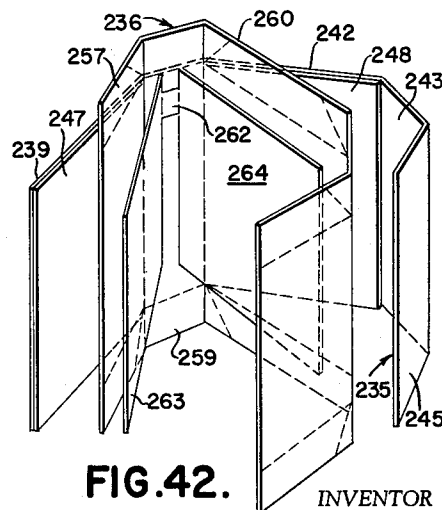


FIG. 42.

INVENTOR
Jerome V. Keating

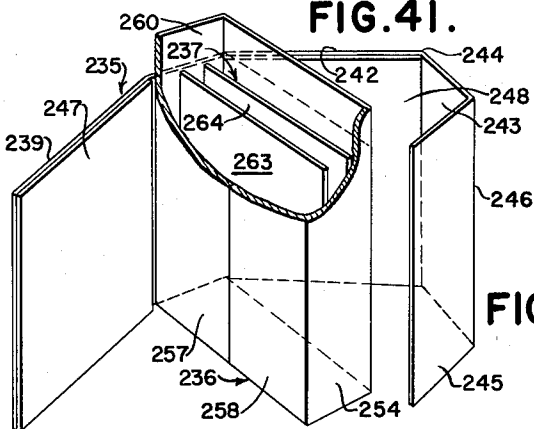


FIG. 43.

BY *L. S. Saulsbury*
ATTORNEY

March 17, 1964

J. V. KEATING

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SELF THINNING COLLAPSIBLE CIGARETTE PACKAGE

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10 Sheets-Sheet 8

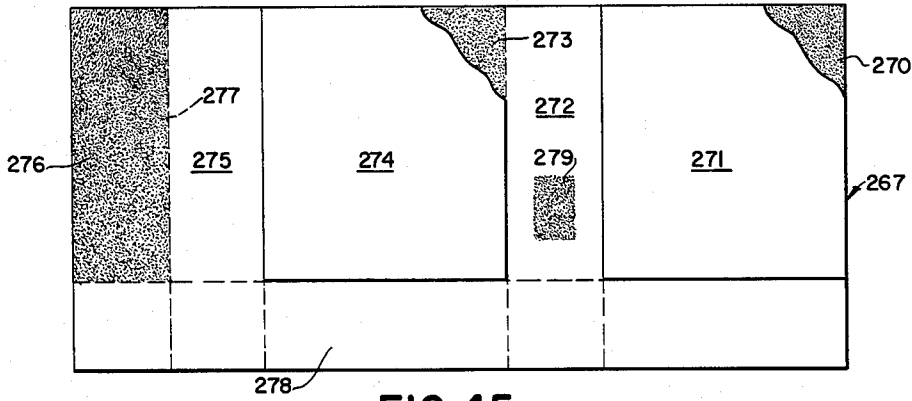


FIG. 45.

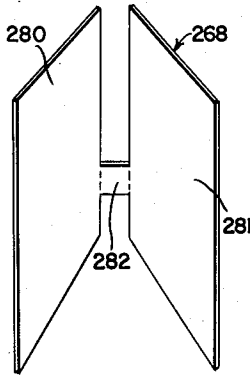


FIG. 48.

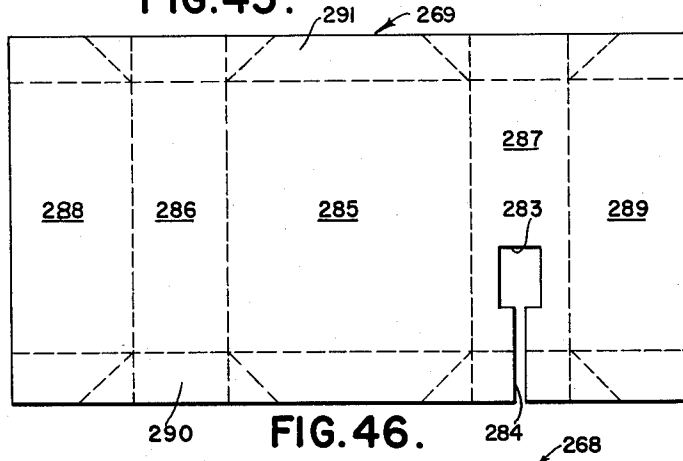


FIG. 46.

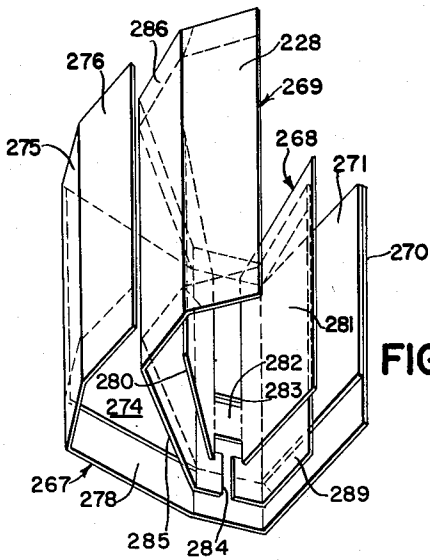


FIG. 49.

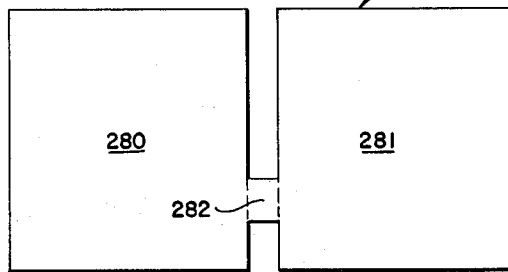


FIG. 47.

INVENTOR

Jerome V. Keating

BY

L. S. Saulsbury

ATTORNEY

March 17, 1964

J. V. KEATING

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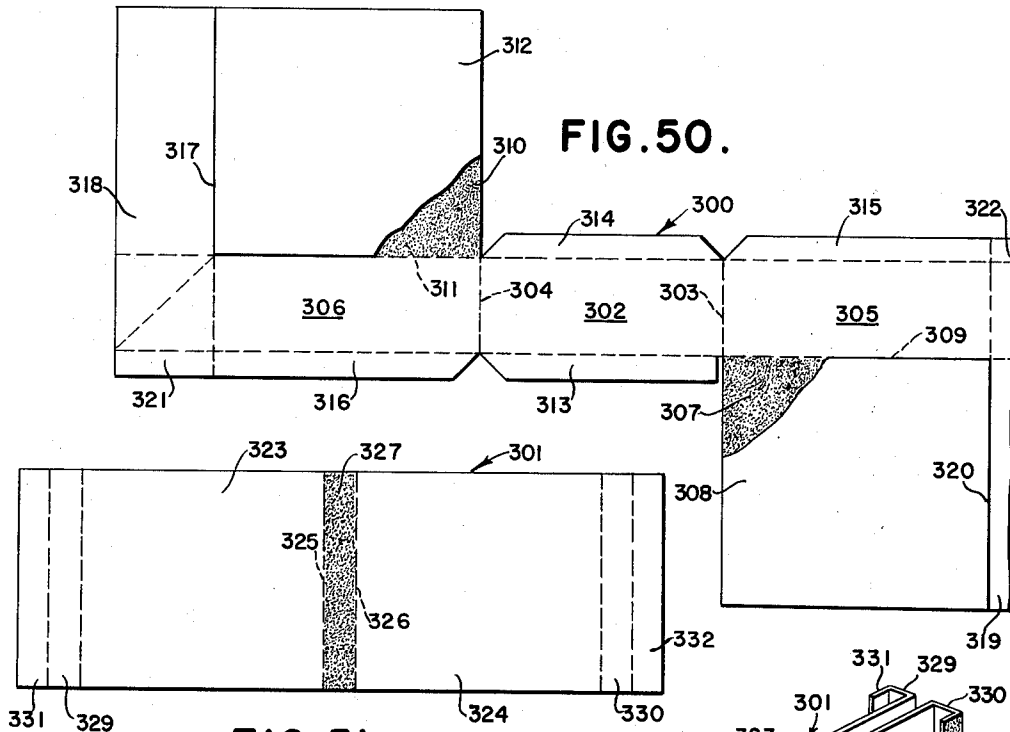


FIG. 51.

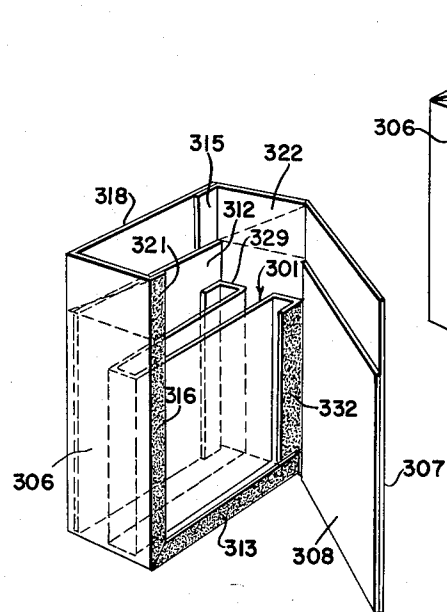


FIG. 54.

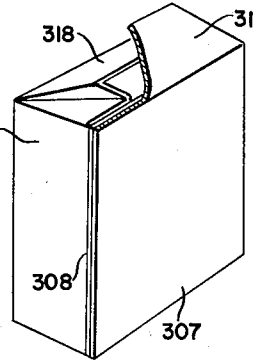


FIG. 53.

FIG. 52.

INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*
ATTORNEY

March 17, 1964

J. V. KEATING

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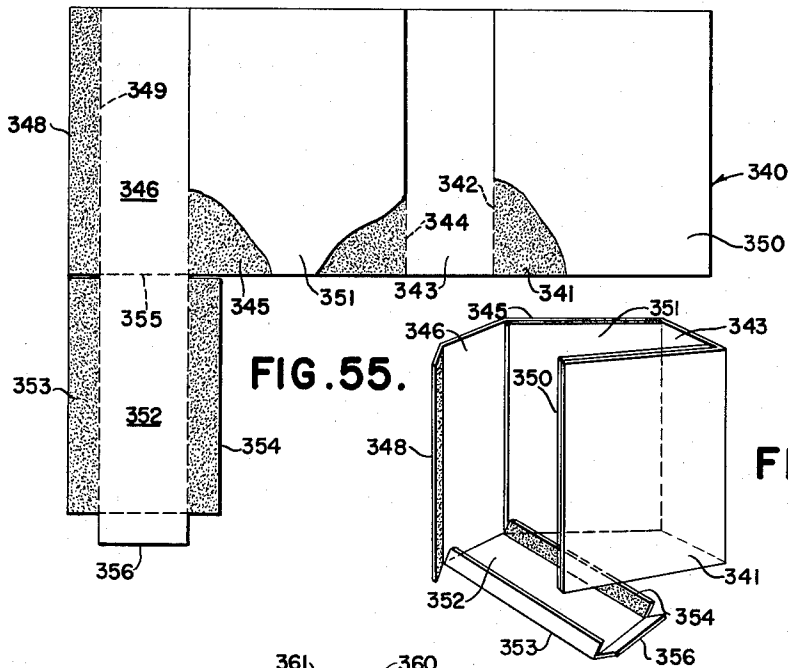


FIG. 55.

FIG. 56.

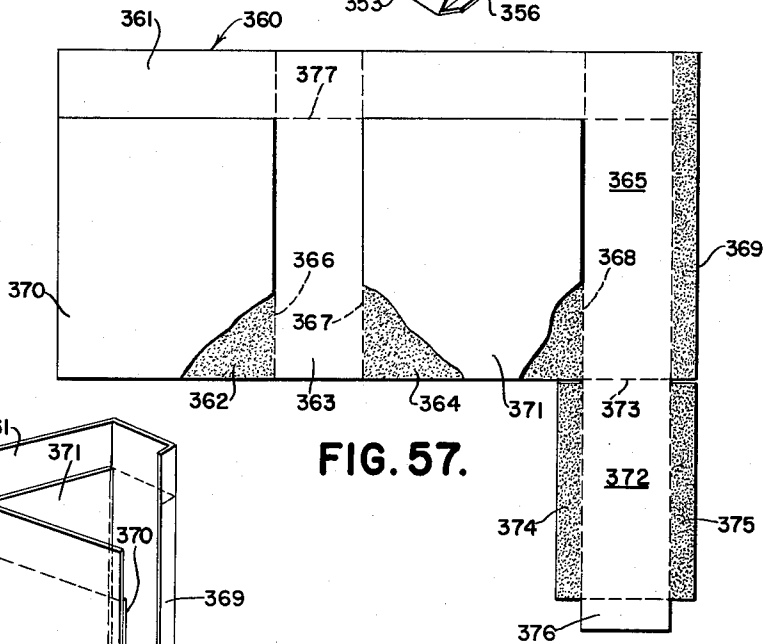


FIG. 57.

FIG. 58.

INVENTOR
Jerome V. Keating

BY *L. S. Saulsbury*
ATTORNEY

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SELF THINNING COLLAPSIBLE CIGARETTE PACKAGE

Jerome V. Keating, 34—21 77th St.,
Jackson Heights, N.Y.

Filed Sept. 14, 1959, Ser. No. 839,655

10 Claims. (Cl. 206—41)

This invention relates to a self-thinning collapsible package and more particularly to packages for containing cigarettes and the like goods that need to be kept from being crushed as the package is collapsed.

This application is a continuation-in-part of the U.S. Patent No. 2,904,169 and relating to collapsible cigarette packages and in which there has been disclosed a self-thinning cigarette package that combines the advantages of the cigarette box with the advantages of the soft cigarette bundle or pack. The front and rear of the package is stiffened throughout the full area thereof so as to protect the cigarettes against being broken or crushed as if they are in a box and as the cigarettes are progressively used, permits the package to be collapsed and made smaller as is the inherent advantage of cigarette bundles or packs. For the stiffening of the front and back of the package, rigid stiffening plates are made fixed and secure to the wrappers of the package. The packages thus have a rigid front and back and flexible sides bottom and sometimes top, the variation being that in some forms of the invention the top is open. Various forms of the invention suitable for easy processing have been needed yet maintain the features and the advantages of both the box and pack and the added subject matter of the present application is to supply this need.

In instances, instead of two wrappers one wrapper has sufficed, the same being foil paper, and the need for an inner foil wrapper has been eliminated. Such packages require a top composed of foil paper and is folded over the cigarettes to complete the enclosure and is subject to repeated opening and closing to permit the extraction of the cigarettes. This foil paper or tinfoil can be used with either side out. Glue and other adhesive provide constructive material to join and integrate the parts of the package together. The box effect or rigid front and rear walls are provided by fixing stiffening plates or panels of cardboard or other rigid or stiff materials to the panel formations of the wrapper by adhesive, staples, clips, fasteners, or any other suitable means. The stiff front and rear of the package also may be obtained by impregnating or coating of the front and rear areas of the package with plastic-like material or substances that create a hard, rigid front and back area. The stiffening plates for reinforcing and making rigid the front and back of the package are preferably made of cardboard or other thin rigid sheet material such as plastic and they can be made integral therewith or placed loosely at the inside of the front and back of a standard package but the more practical arrangement is to fasten them front and rear of the wrapper with an adhesive and to have them placed within the interior of the package. Although, the stiffening plates may for some purposes be placed upon the outside of the package and used as an aid in labeling. The plastic coating may be used either on the inside or outside of the front and back of the package. The plastic exterior may carry a gloss which would be advantageous

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for labeling. The stiffening may be effected by impregnating the paper with plastic. The basic effect of this invention is that the package becomes in effect an inexpensive self-thinning or self-slenderizing cigarette case. The cigarette as made familiar to the public is an article of slender elegance and the present packaging conforms thereto.

Partitions or separators are provided in the interior of the package to encourage the use of the cigarettes row by row. The rest of the package is made of flexible thin paper that may according to some forms of the invention be wound around the package side and bottom with its ends brought together at the top, this form of the invention being shown in the above mentioned patent but with the present instances, variations are made thereof but with the basic principle kept in mind. The flexible paper overlaps the rigid panels with small flaps which are adhered to these panels. These flaps are secured either on the inside or outside of the stiffening plates but always integrated therewith.

It has been found that cigarettes as they are taken from the package, the remaining ones after the seven or eight have been removed tend to sift into two rows then into one row. Thus without any devices to encourage the use of a cigarette row by row there is inherently a progressive automatic collapsing of the package resulting from the use of rigid front and back panel structures. Row separators thus may or may not be used. This automatic thinning or slenderizing feature overcomes the disadvantage of the box so far as the requirement of a full size box regardless of the number of cigarettes therein and yet at the same time have the advantage of the box in that the cigarettes are protected. The cigarette case effect is accordingly had with a cigarette package to protect the cigarettes, as the cigarettes are removed therefrom. These cigarettes by the use of these panels are prevented from being twisted or otherwise deformed, crushed or broken and endures through the last cigarette. A thin partition is preferably used to encourage the use of the cigarettes row by row. The purpose can be achieved also by wrapping the center row of the cigarettes in a sheet of thin paper or cellophane or cardboard. This paper can be fashioned into an enclosing tube and the effect may be obtained adequately without fastening.

It is accordingly still and now the principal object of the present invention to provide a package or bundle for cigarettes and like goods which has reinforcing members in the front and back thereof to render the package rigid like a cigarette box but permit the progressive collapsing of the package as the cigarettes are gradually used.

It is another object of the invention to provide a cigarette package that is self-thinning or self-slenderizing as the cigarettes are used from the package, and so that the package may conform to the slender elegance of the cigarette.

It is still another object of the invention to provide a cigarette package that combines the features of the two primary forms of cigarette packaging namely, bundle or pack, and the box, to create in effect a collapsible cigarette case that is inexpensive and adapted for mass production.

It is still another and important object of the invention to provide a collapsible cigarette package having these

objects in mind wherein the parts are formed for use in mass assembly and packaging method.

It is a further object of the invention to provide simple means for stiffening a cigarette package that takes the form of stiffening plates or layers added to the front and back of the package wrappers but leaving the sides of the package of foldable sheet wrapper material free to permit the collapse of the package as the rows of cigarettes are removed therefrom and that will maintain the remaining cigarettes in the package in parallel alignment with each other and kept from being crushed.

It is a still further object of the invention to provide on a collapsible cigarette package a cigarette row separator that may be integrated in the package with the stiffening plates at the front and back thereof.

Other objects of the invention are to provide a crush proof, yet collapsible cigarette package, having the above objects in mind, which is of simple construction, easy to assemble and fill, inexpensive, durable, compact, of pleasing appearance, effective and efficient in use.

For a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

FIGURE 1 is a perspective view of a cigarette package constructed according to one form of the invention with the portions cut away to show the construction,

FIG. 2 is a perspective view of the stiffening card members,

FIG. 3 is an elevational view of the package after the two rows of cigarettes have been removed therefrom and the package partially collapsed upon the single row, and portions being broken away to show the interior construction thereof,

FIG. 4 is an enlarged transverse elevational view of the partially collapsed package as viewed on line 4—4 of FIG. 3,

FIG. 5 is an enlarged fragmentary vertically-sectional view of the partially collapsed package as viewed on line 5—5 of FIG. 3,

FIG. 6 is a perspective view of a cigarette package constructed according to another form of the invention with portions of the same broken away to show the interior construction,

FIG. 7 is a fragmentary vertical sectional view taken on line 7—7 of FIG. 6,

FIG. 8 is a perspective view of the outer wrapper of the package shown in FIG. 6 with plastic stiffening layers adhered to the faces of the front and back panels,

FIG. 9 is a lay out view in plan of a package wrapper of another form of the invention,

FIG. 10 is a perspective view of a stiffening plate that is adhered to the front and rear panels of the wrapper,

FIG. 11 is a perspective view of the package being assembled,

FIG. 12 is a perspective view of the finally assembled package,

FIG. 13 is a lay out view of a package wrapper that has foldable top and bottom closure portions and adapted for king size cigarettes,

FIG. 14 is a perspective view of a stiffening plate that is adhered to the front and rear panels of the wrapper,

FIG. 15 is an open perspective view of the wrapper partially assembled,

FIG. 16 is a perspective view of the wrapper more assembled but with the foldable closure portions extended,

FIG. 17 is a lay out view, in plan, of a cigarette row separator for use with the package shown in FIGS. 9 to 12,

FIG. 18 is a perspective view of the cigarette row separator folded and ready for insertion into the package,

FIG. 19 is a fragmentary perspective view of a package having the separator and partially assembled,

FIG. 20 is a fragmentary perspective view of the package bearing the separator fully assembled,

FIG. 21 is a perspective view of a combined stiffening

plate and separator used with the wrapper shown in FIG. 9,

FIG. 22 is a fragmentary perspective view of the combined stiffening plate and separator,

FIG. 23 is a fragmentary perspective view of the wrapper shown in FIG. 9 with two of the combined stiffening plates and row separator of FIGS. 21 and 22 assembled therein,

FIG. 24 is a lay out view of a full wrapper according to still another form of the invention,

FIG. 25 is a perspective view of the wrapper shown in FIG. 24 being assembled,

FIG. 26 is a perspective view of the wrapper fully assembled with the closure extensions unclosed,

FIG. 27 is a lay out view of a complete package except for the stiffening plates according to still another form of the invention,

FIG. 28 is a fragmentary and perspective view of a package partly constructed from the wrapper shown in FIG. 24,

FIG. 29 is a fragmentary perspective view of the package fully assembled except for the foldable closure portions,

FIG. 30 is a lay out view of a cigarette package constructed according to still another form of the invention in which the front, rear and side panels of the wrapper are folded upwardly from the bottom,

FIG. 31 is a perspective view of the package formed of the wrapper shown in FIG. 30 partly assembled,

FIG. 32 is a perspective view of the same package further in process of being assembled,

FIG. 33 is a lay out view of the outer wrapper of a combined outer wrapper, inner wrapper and row separator assembly constructed according to still another form of the invention,

FIG. 34 is a lay out view of the inner wrapper,

FIG. 35 is a lay out view of the row separator,

FIG. 36 is a perspective view of the row separator attached to the outer wrapper,

FIG. 37 is a perspective view of the row separator and inner wrapper both attached to the outer wrapper,

FIG. 38 is a fragmentary perspective view of the package completely assembled but with the top left open,

FIG. 39 is a lay out view of an outer wrapper of a combined outer wrapper, inner wrapper and row separator assembly constructed according to a further form of the invention,

FIG. 40 is a lay out view of an inner wrapper of this form of the invention,

FIG. 41 is a lay out view of the row separator of this form of the invention,

FIG. 42 is a perspective view in open assembly of the parts of this form of the invention,

FIG. 43 is a perspective view of a less open assembly of the parts,

FIG. 44 is a perspective view of the package constructed according to this form of the invention fully assembled but with the top inner wrapper closure open as when cigarettes are to be removed from the package,

FIG. 45 is a lay out view of the outer wrapper of a combined outer wrapper, inner wrapper and row separator assembly constructed according to a still further form of the invention,

FIG. 46 is a lay out view of the inner wrapper,

FIG. 47 is a lay out view of the row separator,

FIG. 48 is a perspective view of the row separator,

FIG. 49 is a bottom perspective view of the parts of this assembly assembled upon one another,

FIG. 50 is a lay out view of a wrapper of a combined wrapper and separator assembly constructed according to a still further form of the invention,

FIG. 51 is a lay out view of the separator,

FIG. 52 is a perspective view of the finished package formed of this wrapper and separator,

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FIG. 53 is a perspective view of the separator and free of the wrapper,

FIG. 54 is a perspective view of the wrapper and separator assembly with the front panel and top open to show the interior of the package,

FIG. 55 is a lay out view of an outer wrapper constructed according to a still further form of the invention,

FIG. 56 is a perspective view of the wrapper partly assembled,

FIG. 57 is a lay out view of a package formed of a single wrapper and having a foldable top closure constructed according to a still further form of the invention, and

FIG. 58 is a perspective view of this wrapper partly assembled.

According to the present invention the box feature has been achieved in various ways by the use of rigid front and back panels and partitions or separators disposed between the rows of cigarettes.

Referring now particularly to FIGS. 1 to 5, 15 represents the usual inner wrapper that consists of a metal foil paper 16 that is wrapped about cigarettes 18 and folded over the bottom and top of the cigarettes. An outer wrapper 19 normally surrounds the inner wrapper and bears the usual advertising material or labeling. The lower end of the outer wrapper 19 is folded into the bottom of the package over the folded bottom end of the inner foil paper wrapper 15 in the usual manner. According to this form of the invention, two stiffening cards or plates 20 and 21 are disposed in the cigarette package so as to lie between the inner and outer wrappers and at the front and back of the package. These cards stiffen the package and protect the cigarettes against being crushed and bent. The top of the inner wrapper 15 is folded down over the cigarettes in the usual manner. The outer paper wrapper is not adapted to be folded at the top of the package so that the foil paper inner wrapper and the upper edges of the stiffening cards or plates 20 and 21 will appear. The cards are made of rigid cardboard, stiff plastic or other suitable stiff sheet material.

Over the entire assembly, there is disposed the usual transparent cellophane wrapper 22 that is folded in at both the top and bottom ends of the inner and outer wrappers to finally close the package. This cellophane wrapper may include a tear strip disposed at the top of the package to release the top of the cellophane and permit access to the cigarettes through the foil paper inner wrapper 15.

In order to facilitate the removal of the first cigarette from the open pack, the cigarette is saddled in a flexible strip 24, FIG. 1, with the upper ends extending above the cigarette so they may be grasped and pulled to remove this cigarette from the package.

As the cigarettes are continually removed to the extent of one or two rows the front or back of the package of remaining cigarettes can be brought toward one another to thereby collapse the flexible paper sides of the package in the manner as shown in FIGS. 3, 4 and 5 until ultimately there is but a single row of cigarettes remaining. The stiffening cards or plates permit the easy collapse of the package and the cigarettes as the package becomes thinner will be continually supported by the stiffening cards and prevented from being readily crushed or bent. The package thereby serves as a cigarette box or case to give the same protection that has been afforded by the box or case, but has the additional advantage of the bundle or pack that as the number of cigarettes in the package are reduced the package becomes smaller and is automatically thinned or slenderized.

Referring now to FIGS. 6, 7 and 8, 30 represents an inner foil paper wrapper in which cigarettes 31 are disposed in the usual moisture tight manner. An outer flexible paper wrapper 32 is prepared as more clearly shown in FIG. 8 with plastic coatings, layers, or stiff plates 33 and 34 adhered to or even impregnated therewith either the inner or outer faces of back and front panels 35 and

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36 of the wrapper 32. The panels may also be of cardboard bonded with an adhesive to either the inner or outer faces of the front and back panels 35 and 36. These panels 35 and 36 are separated by side panels 37 and 38 that have securing lips or flaps 39 by which the wrapper is joined by an adhesive to the back panel 35. The lower edge of the paper wrapper will be folded under to overlie the folded bottom of the inner foil paper wrapper 30. The usual cellophane covering 41 is placed over the paper wrappers and folded on the top and bottom ends to finally close the package. The usual revenue stamp 42 is placed over the top of the package and is broken when the top is opened, FIG. 6. The usual tear strip provided in the cellophane wrappers can be provided to remove the upper end thereof.

As the cigarettes are removed from the package to provide two rows or a single row the flexible side panels 37 and 38 are collapsed and the package thinned and at the same time the cigarettes kept protected by the plastic or cardboard stiffening layers or plates on the outer wrapper 32. Similarly, the stiffening means can be provided on the corresponding front and back panels of the inner wrapper.

Referring now particularly to FIGS. 9 to 12, 50 represents generally a layout of the paper package of flexible foil paper in which the front and back panels indicated respectively at 51 and 52 of the wrapper are joined respectively at the opposite sides of flexible side panels 53 and 54 that join a bottom panel 55 along respective fold lines 56 and 57. The front panel 51 is covered with glue or other suitable adhesive to which a stiffening plate of cardboard or plastic 57 is adhered. This stiffening plate is shown alone in FIG. 10 and the panel 52 of the wrapper is similarly provided with adhesive by which a similar stiffening plate 57 is adhered. These stiffening plates will cover the full area of the front and back of the package. The front panel 51 has a flap extension 58 that is connected to an extension 59 of the flexible side panel 53 and can be folded inwardly over the cigarettes along lines 60 and 61. The rear panel 52 has a flap extension 62 that is joined with a flap extension 63 of the side flexible panel 54 and can be folded along lines 64 and 65. The front panel with the stiffening plate 57 thereon is folded over along line 66 and upwardly on fold line 56. The panel 52 with stiffening plate 57 is folded inwardly toward the front panel along fold line 67 and upwardly on the fold line 56 of the bottom 55. Flaps 68 and 70 are folded upwardly on the fold line 56 from the bottom 55 and joined along the inside bottom edge of the front and rear panels 51 and 52 to which the plates 57 are joined. The side panel 54 has a flap 69 that is adhered to the vertically-extending edge of the front panel 51 and the side panel 53 has a flap 71 that is similarly adhered to the vertically-extending edge of the back panel 52. The stiffening plates 70 can overlie the flaps adhered to the panels or the flaps may be adhered to the inner faces of the stiffening plates. This package is assembled as best illustrated in FIG. 11 and when the parts have been finally adhered together the top flap portions 58, 59, 62 and 63 are folded inwardly in the same manner as a cigarette package is folded at the top to provide the closure therefor as best shown in FIG. 12 and over which the revenue stamp 72 is extended and secured to the upper parts of the front and rear panels. This package is preferably made of foil paper with the foil layer being inside and the outer paper layer being on the outside for the labeling and the flaps and stiffening plates adhered to the foil layer. If desired, of course, the foil could lie on the outside and the paper could be within the inside. The cigarettes will be arranged in the usual manner within the package. This wrapper will constitute the entire package and there is no need for an inner wrapper. Access can be had to the package in the same manner as it is had to any cigarette package by breaking the revenue stamp 72 and opening of the flap closure portions.

Referring now particularly to FIGS. 13 to 16, there

is shown a cigarette package formed from a blank 75 formed of metal foil paper used with the foil layer inside and has a front panel 76 having adhesive to which there is joined along a fold line 77 a flexible side panel 78 that is in turn joined by a fold line 79 to a rear adhesive panel 80 that is in turn joined by a fold line 81 to a side panel 82. On the front panel 76 is a small joining flap 83 that is provided with adhesive on its front face as shown in FIG. 15 and which will be joined to the inner face of the flexible side panel 82 to form the package as shown in FIG. 16.

Rigid stiffening plate 84 formed of paper, cardboard or plastic sheet is fixed by the adhesive on the front and back panels 76 and 80 and as shown in FIG. 15 prior to the folding of the wrapper to assume the shape shown in FIG. 16. The front and back panels respectively have foldable flap portions 85 and 86 at the bottom and 87 and 88 at the top which are foldable over the edges of the panel. The bottom flap portions are joined by foldable flap extension 89 on the bottom of the flexible side panel 78 and the flap extension 90 on the side panel 82 and a fragment 91 of the small joining flap 83 that may be joined with the flap portion 90.

The flap portion 87 of the front panel 76 is joined to a flap extension 92 of the side panel 78 and a flap extension 93 of the side panel 82 that will be joined by the fragment 94 of the joining flap 83. Once the panels are joined together in the manner shown in FIG. 16 with the stiffening panels 84 provided therein the bottom and top flap portions will be closed and the package filled with the cigarettes. The top flap portions are then folded inwardly over the top of the cigarettes and can be folded outwardly for access thereto. With this package it is not necessary to previously wrap the cigarettes in an inner wrapper. A small cellophane outer wrapper can be extended over the completed package and a revenue stamp can be placed over the top of the package.

Referring now particularly to FIGS. 17 to 20, there is shown a partition or row separator 95 used in the interior of the package shown in FIGS. 9 to 11 in order to encourage the removal of the cigarettes row by row. This separator is made of thick or preferably less stiff paper than the stiffening plates and is folded to assume the shape shown in FIG. 18. The separator has a panel 96 that is joined by a small side adhesive panel 97 to a large panel 98 and foldable thereon along lines 99 and 100. On the panel 96 is a spacer portion 101 joined therewith by a fold 102 and to which a fastening adhesive flap 103 is joined along the fold 104. The panel 98 is joined along a fold line 105 to a spacer portion 106 and foldable along a line 107 is an adhesive flap.

This separator 95 is placed in the wrapper shown in FIGS. 9 to 12 the adhesive flaps 103 and 108 are adhered to the front and rear panels 51 and 52 and underneath the stiffening plates 57.

Referring now particularly to FIGS. 21 to 23, there is shown a modified separator 110 in which the separator panel is combined with the stiffening plate. The stiffening plate 111 is connected by a small spacer portion 112 with a row separator 113 of less height than the stiffening plate to provide easy access to the ends of the cigarettes. The stiffening and separator plates 111 and 113 are respectively foldable upon the spacer portion along folded lines 114 and 115. There are two of these combined stiffening plates and separators, one for each side of the package. They will be adhered to the wrapper as shown in FIGS. 9 to 12 by the adhering of the stiffening plate therewith. The rows of cigarettes are placed between the stiffening and separating portions and these portions thereby encourage the removal of the cigarettes by a row at a time.

Referring now particularly to FIGS. 24 to 26, 118 represents the blank paper wrapper from which the package is formed. This paper wrapper has a bottom panel 119 from which there extends from one side a flexible side panel 120 with a front panel 121 connected thereto.

To the other side of the bottom there extends a flexible side panel 122 having a rear panel 123 extending laterally therefrom. The front and rear panels 121 and 122 are folded upwardly respectively on bottom fold lines 124 and 125 with the flexible side panels 120 and 122 and inwardly respectively on vertical fold lines 126 and 127, as shown in FIG. 25. The panels are joined together with front and rear stiffening plates 128 and 129 by adhesive and by flaps 130 and 131 on the bottom 119 and flaps 132 and 133 on the flexible side panels 120 and 122. The flaps 130 and 131, 132 and 133 may have adhesive as indicated for securement with the edges of the stiffening plates 128 and 129.

A closure extension 134 is foldable on line 135 to flexible side 120 and a closure extension 136 is foldable upon line 137 over flexible side panel 122. Adhesive flaps 138 and 139 are connected to the upper edge of the respective front and rear panels 128 and 129 while adhesive flaps 140 and 141 of the extension 134 is extended downwardly to finally close the package and to overlap the extension 136 and also connected to the upper edge of the front and rear panels. It will be apparent that the entire package has flexible bottom, side and top panels and that with the stiffening plates on the front and rear panels, collapse of the package is permitted only there-around while protection is given to the cigarettes from the front and back. The blank may be formed of metal foil paper with the foil layer inside and the paper layer outside for labeling purposes, the stiffening plates being adhered to the foil layer. This package may also serve as the outer wrapper and the cigarettes disposed therein with the usual inner wrapper.

Referring now particularly to FIGS. 27 to 29, 144 represents a wrapper from which the cigarette package is formed. This wrapper has a flexible bottom paper panel 145 to which front and rear panels 146 and 147 are respectively joined by fold lines 148 and 149. Stiffening panels 150 and 151 are respectively joined inside the package by adhesive provided on the respective panels 146 and 147. The rear panel 147 has respectively side panels 152 and 153 joined to it on the opposite sides thereof by fold lines 154 and 155 that respectively have bottom attaching flaps 156 and 157 that are adhered by adhesive areas 158 and 159 to the bottom 145 upon the side panels being folded inwardly in the manner as illustrated in FIG. 28. The side panels 152 and 153 respectively have adhesive flaps 160 and 161 that are adhered to the sides of the front panel 146. Extending from a fold line 162 on the rear panel 147 and the side panels 152 and 153 are respectively a foldable top portion 163, 164, 165 which are joined by extensions 166 and 167 of respective adhesive flaps 160 and 161 for adhesion with a top portion 168 extending from the front panel 146 from a fold line 169. The top extension portions 163, 164, 165 and 168 are folded inwardly as best seen in FIG. 29 to close the package and can be unfolded to provide access to the cigarettes lying therewithin.

Referring now particularly to FIGS. 30 to 32, 170 represents a wrapper formed of a flexible bottom 171 to the sides of which there is respectively joined by fold lines 172 and 173 front and rear panels 174 and 175 that respectively have joined by fold lines 176 and 177 top portions 178 and 179. From fold lines 180 and 181 of the flexible bottom 171 there extends side panels 182 and 183 having respectively inwardly foldable extensions 184 and 185 that are respectively foldable inwardly on fold lines 186 and 187. The side panel 182 has front and rear side flaps 188 and 189 that are respectively joined with the sides of the front and rear panels 174 and 175 and which has adhesive thereon for joining the respectively front and rear stiffening plates 190 and 191. The extension 184 has flaps 192 and 193 that are joined respectively by adhesive areas 194 and 195 on the respective top portions 178 and 179. The side panel 183 has side adhesive flaps 196 and 197 that have adhesive to

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which the rear stiffening plate 191 is joined upon being adhered to the rear panel 175 to which the flaps 196 and 197 are also adhered. The extension 185 has side adhesive flaps 198 and 199 that are joined respectively by adhesive areas 200 and 201 on the respective front and rear top portions 178 and 179. The extensions 184 and 185 may be of any suitable length to be easily folded inwardly with the top portions 178 and 179 to adequately close the top of the package and which can be opened outwardly therewith to provide access to the cigarettes. The stiffening plates 190 and 191 are adhered fully to the inner faces of the front and rear panels to render the panels stiff while allowing the bottom and side panels and top closure to be collapsed as the cigarettes are removed row by row.

Referring now particularly to FIGS. 33 to 38, there is shown a package formed from an outer wrapper 205, FIG. 33, having front and rear stiffening plates 206 and 207, a double row separator 209 all joined together to provide the complete package and an inner tinfoil wrapper 208. The outer wrapper is formed of flexible paper and has a front panel 210 and a rear panel 211 with adhesive to which the stiffening panels 206 and 207 are respectively joined. These panels 206 and 207 are respectively connected along fold lines 212 and 213 to a side collapsible panel 214. A side panel 215 is joined by a fold line 216 to the opposite side of the front panel 210 and has an adhesive flap 217. The panels 210, 211, 214 and 215 and adhesive flap 217 respectively have extensions that are joined together to provide a bottom fold portion in portion 218 and a top fold portion 219.

Also adhered to the outer wrapper is the double row separator 209 having separator portions 220 and 221 that are joined to one another by an intermediate connecting portion 222 and foldable respectively thereover on fold lines 223 and 224. The connecting portion 222 is adhered to the side panel 214 of the outer wrapper 205 as best seen in FIGS. 33 and 36.

The inner wrapper 208 has a front panel 225 that is joined along the fold line 226 to a side panel 227 that is in turn joined along a fold line 228 to a rear panel 229. A side panel 230 is joined along a fold line 231 to the rear panel 229. The front panel 225 has a securing flap 231 that is joined by adhesive with the side panel 230 with the cigarettes being enclosed therein. The panels 225, 227, 229, 230 and connecting flap 231 respectively have bottom extensions that are connected together to provide a foldable closure portion 232. The upper end of the side panel 227 is cut away to provide an open end slot 233 so that the inner wrapper 208 can be connected to and behind the row separator 209 in the manner best shown in FIG. 37. The separator 209 and the inner wrapper 208 can have the cigarettes contained therein and thereafter the cigarettes with the inner wrapper adhered by the connecting portion 222 of the separator 209 to the side panel 214 of the outer wrapper on an adhesive area 222' and the outer wrapper finally having the bottom and top foldable closure portion 218 and 219 folded thereover to close the package.

Referring now particularly to FIGS. 39 to 44, there is also disclosed a package comprising an outer wrapper 235, a full inner tinfoil wrapper 236 and a double row separator 237. The outer wrapper 235 has a front panel 238 joined on a fold line 239 with a side panel 240 and from a fold line 241 a rear panel 242 is joined. A side panel 243 is joined to the opposite side of the rear panel 242 by a fold line 244 and has an extension 245 extending from a fold line 246. Stiffening plates 247 and 248 are respectively secured to the front and rear panels 239 and 242 by adhesive as shown. An adhesive area 249 is provided on the side panel 240 for the securement thereto of the cigarette row separator 237 in a manner to be later described.

The inner wrapper is formed of foil paper and is adapted to fully enclose the cigarette. It comprises a rear panel 250 joined respectively by fold lines 251 and 252

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with side portion 253 and 254 which are in turn respectively joined by fold line 255 and 256 with respective split front panel portions 257 and 258. These panel portions have a bottom portion 259 connected to their lower ends and a top portion 260 connected to the upper ends both of which are adapted to be folded over the bottom and top ends of the cigarettes. The side panel 253 has an opening 261 therein that is registered with the adhesive area 249 of the side panel 240 of the outer wrapper 235 so that access can be had therewith for the securement thereto of a connecting portion 262 of the separator 237 that joins panels 263 and 264 together on respective fold lines 265 and 266.

Referring now particularly to FIGS. 45 to 49, there is shown a package formed of an outer wrapper 267, a cigarette row separator 268 and an inner wrapper 269. The outer wrapper 267 comprises a front panel 270 having a stiffening plate 271 adhered thereto and foldably connected to a side panel 272. A rear panel 273 is foldably connected to side panel 272 and has a stiffening plate 274 adhered thereto. A side panel 275 is foldable upon the rear panel 273 and has a large connecting flap extension 276 foldable along line 277 thereon. A fold in bottom portion 278 extends the full length of the blank and is foldable inwardly along the lower edges of the several panels and extensions to provide a bottom closure portion. The side panel 272 has an adhesive area 279 to which the double row separator 268 is adhered.

This row separator 268 has separator portions 280 and 281 that are joined by a spacer connecting portion 282 that is adhered to the wrapper 267 by the adhesive area 279.

The inner wrapper 269 is formed of the usual foil paper and similar thereto except for a cut away opening 283 serving to permit the connecting portion 282 of the row separator to the adhesive area 279 and a slit 284 extends therefrom to permit the insertion of the inner wrapper within the outer wrapper over the connecting portion 282 after the connecting portion has been secured to the outer wrapper and also to make possible the easy removal, if desired, of the inner wrapper with the cigarettes from the outer wrapper. The inner wrapper includes a rear panel 285 with side panels 286 and 287 foldably connected thereto and the side panel 287 containing the window opening 283 and slit 284. The split front panels 288 and 289 are respectively foldable over the side panels 286 and 287 to provide the full front panel portion. Bottom and top closure portions 290 and 291 are foldable along the bottom and top edges of the several panels in the usual manner to fully enclose the cigarettes disposed therein.

Referring now particularly to FIGS. 50 to 54, there is shown a package formed from a wrapper 300 and a cigarette row separator 301. The wrapper 300 has a bottom 302 to which by joined lines 303 and 304 respective sides 305 and 306 are connected. To the side 305 is connected a front panel 307 to which a stiffening plate 308 is adhered. The front panel 307 is joined to the side panel 305 along the fold line 309. A rear panel 310 is joined to the side panel 306 along a fold line 311 and has a stiff panel 312 adhered thereto. The bottom 302 has connecting flaps 313 and 314 that are joined to the bottom edges of the front and rear panels 307 and 310 as they are elevated over the bottom 302. An adhesive flap 315 joins the side panel 305 with the vertical edge of the rear panel 310 and stiffening panel 312 while connecting flap 316 joins the side panel 306 with the vertical side edge of the front panel 307 and the stiffening plate 308. On the rear panel 310 and side panel 306 there is secured along a fold line 317 thereacross a top foldable portion 318 that is joined with a similar top portion 319 extending from a fold line 320 on side and front panels 305 and 307. These top portions 318 and 319 are joined to one another by respective adhesive tabs 321 and 322.

The cigarette row separator 301 comprises separator portions 323 and 324 joined together by respective fold lines 325 and 326 and an adhesive connecting portion 327. Spacer portions 329 and 330 are respectively foldably connected to the respective separator portions 323 and 324 and respectively have connecting flaps 331 and 332 by which the separator 301 is adhered to the inner faces of the stiffening plates 308 and 312 as best seen in FIG. 54.

Referring now particularly to FIGS. 55 and 56, there is shown a wrapper 340 from which is formed an outer wrapper that is open at the top. This package has a front panel 341 that is connected through a fold line 342 with a side opening 343 that is in turn connected through a fold line 344 with a rear panel 345. Another side panel 346 is connected through a fold line 347 and an adhesive flap 348 is joined thereto on a fold line 349. The front panel 341 has adhesive thereon by which a stiffening plate 350 is secured. The rear panel 345 has adhesive thereon by which a rear stiffening plate 351 is secured. The adhesive flap 348 is adhered on its underside to the stiffening plate 350 when the wrapper is folded as shown in FIG. 56.

A bottom panel 352 having bottom side flaps 353 and 354 is joined to the lower end of the side panel 346 by fold line 355. On the end of the bottom panel 352 is an adhesive flap 365 by which the bottom is joined to the lower edge of the side panel 343 preferably the adhesive flaps are extended underneath the stiffening plates 350 and 351 and the adhesive on these flaps is made available for the securement of the stiffening plates thereto and over the front and rear panels thereby securing the flap between the inner surface of the panel and the stiffening plates.

Referring now to FIGS. 57 and 58, there is shown a wrapper 360 having a portion 361 foldable over a front panel 362, a side panel 363, a rear panel 364 and another side panel 365. Front and rear panels are joined to the side panel 363 by respective fold lines 366 and 367. The rear panel 364 is joined with the side panel 365 along the line 368. The side panel 365 has an adhesive flap 369 which is adhered to the front panel 362 as the wrapper is formed and is preferably extended under the stiffening plate 370 of the front panel 362 with the adhesive thereon made available for the securement of the stiffening plate thereto. A stiffening plate 371 is adhered to the rear panel 364. A bottom panel 372 is joined to the lower end of the side panel 365 by a fold line 373. This bottom panel 372 has adhesive flaps 374 and 375 and can be located respectively under the front and rear stiffening plates 370 and 371 with the adhesive available for the attachment to the inner face of the stiffening plate. An adhesive end flap 376 secures the bottom 372 to the lower edge of the side panel 363. This package is preferably made of foil paper with the foil lying inside the package and the stiffening plate adhered thereto leaving the paper plate on the exterior for labeling purposes. The package can be fully closed by folding inwardly the top closure portion along a continuous top line 377.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A self-thinning collapsible cigarette package comprising a collapsible wrapper having a foldable bottom panel with side adhesive flaps, foldable side panels folded upwardly respectively from the opposite ends of the bottom panel and having stiffened front and rear panels extending respectively therefrom but in opposite directions, the lower edges of the front and rear panels having the adhesive flaps of the bottom panel secured thereto, adhesive flaps on the respective side panels respectively adhered to the side edges of the respective front and rear panels, whereby the contents of the package will be

prevented from being bent and crushed while permitting the package to be automatically thinned as the cigarettes are removed.

2. A self-thinning collapsible cigarette package as defined in claim 1, and fold-in extensions connected to the top of the stiffened front and rear panels and their side panels and foldable inwardly together over the top of the cigarettes to enclose the same and free to be opened to provide access to the cigarettes.

3. A self-thinning collapsible cigarette package as defined in claim 2, and a collapsible cigarette row separator having an intermediate spacer portion and two panels foldable thereon, spacer portions foldable respectively upon the respective opposite sides of the respective panels and adhesive flaps respectively secured to the respective side spacer portions by which the row separator is adhered to the stiffened front and rear panels, said intermediate spacer portion being adhesively joined to the foldable side panel at the opposite side of the package.

4. A self-thinning collapsible cigarette package comprising a collapsible wrapper formed of foldable sheet material and having a bottom panel with side adhesive flaps, side panels folded upwardly respectively from the opposite side ends of the bottom panel and having front and rear panels extending respectively therefrom but in opposite directions, the lower edges of the front and rear panels having the adhesive flaps of the bottom panel secured thereto, adhesive flaps on the side panels respectively adhered to the side edges of the respective front and rear panels and a combined stiffening plate and row separator for each of the front and rear panels and comprising a stiffening plate adhered to the panel, a spacer portion foldable from one side thereof and a row separator plate foldable from the spacer portion and lying parallel to the stiffening plate.

5. A self-thinning collapsible cigarette package comprising a wrapper formed of foldable sheet material and having a bottom panel, front and rear panels foldable upwardly from the bottom panel and opposing side panels foldable upwardly from the opposite ends of the bottom panel, said side panels having adhesive flaps connecting the side panels to the sides of the front and rear panels, stiffening plates integrated with the front and rear panels and the side panel flaps.

6. A self-thinning collapsible cigarette package as defined in claim 5, and said front, rear and side panels having foldable extensions joined together to provide an inwardly foldable top closure portion.

7. A self-thinning collapsible cigarette package comprising a collapsible wrapper formed of foldable sheet material and having a bottom panel, side panel folded upwardly from the bottom panel, front and rear panels folded inwardly upon the side panels, stiffening means provided on the front and rear panels, one side and front panel having foldable closure portions extending therefrom and the other side and rear panel having foldable closure portions extending therefrom and adapted to be combined with the foldable closure portions of the front and one side panel to provide a top closure, adhesive flaps on the bottom and side panels to secure the wrapper panels together.

8. A self-thinning collapsible cigarette package as defined in claim 7, and a row separator comprising separator portions joined together by an intermediate spacer portion that is adhered to one of the wrapper side panels, end spacer portions on the separator portions each of which having an end spacer portion and each of the latter end spacer portions having an adhesive flap securing the separator to the front and rear panels of the wrapper.

9. An outer wrapper for a self-thinning collapsible cigarette package formed of foldable sheet material and comprising front and rear panels, stiffening means provided on the front and rear panels, flexible side panels interconnecting the front and rear panels, a securing flap for holding the wrapper together, a bottom panel ex-

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tending from one of said side panels and having adhesive flaps securing the bottom panel to the front, rear and other side panel.

10. A self-thinning collapsible cigarette package formed of foldable sheet material and comprising front and rear panels, stiffening means provided on front and rear panels, flexible side panels interconnecting the front and rear panels, a securing flap for holding the wrapper together, a bottom panel extending from one of said side panels and having adhesive flaps securing the bottom panel to the front, rear and other side panel, and a foldable top portion extending from said front, rear and side panels to provide an openable closure for the package.

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