Oct. 3, 1933. C. H. GEORGER 1,928,663

EJECTOR FOR CIGARETTE PACKAGES OR THE LIKE

Filed Sept. 9, 1932 4 Sheets-Sheet 1

Fig. 1.

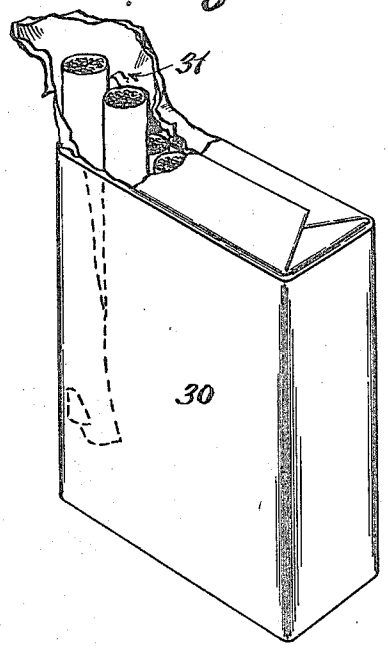


Fig. 2.

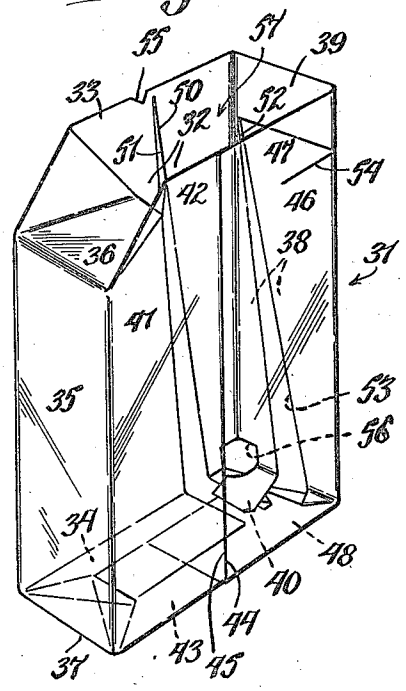


Fig. 3.

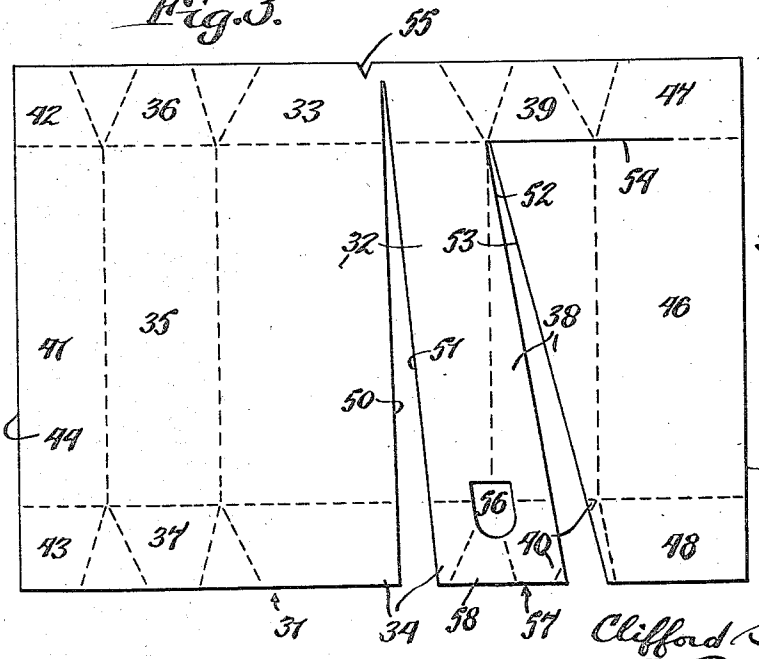
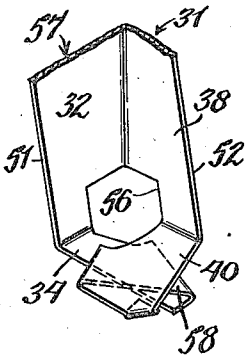


Fig. 4.



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EJECTOR FOR CIGARETTE PACKAGES OR THE LIKE

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Fig. 5.

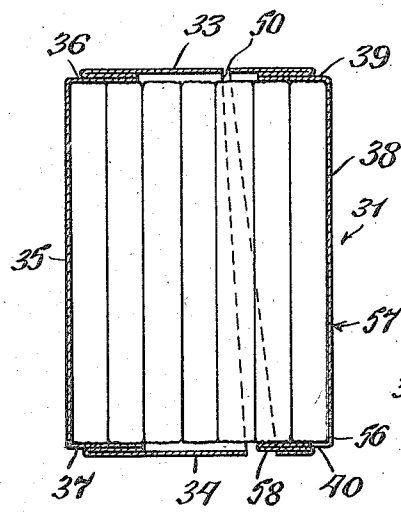


Fig. 6.

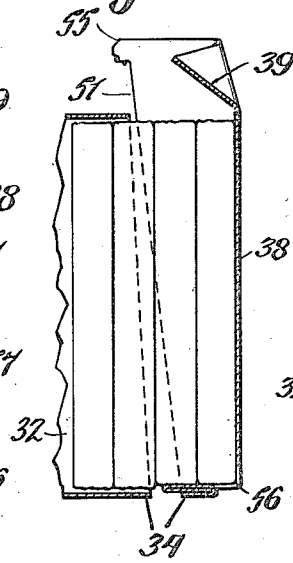


Fig. 7.

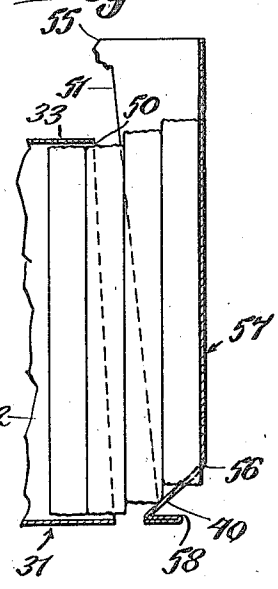
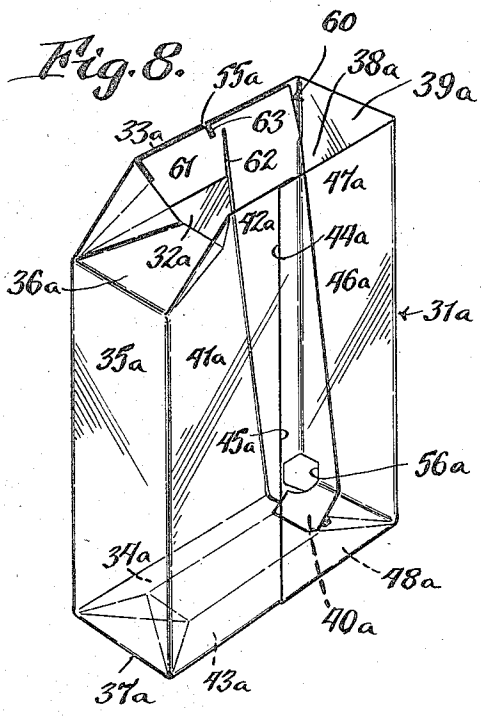


Fig. 8.



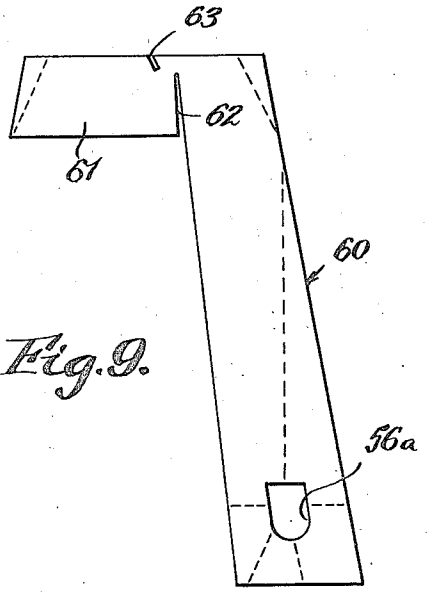


Fig. 9.

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EJECTOR FOR CIGARETTE PACKAGES OR THE LIKE

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Fig. 10.

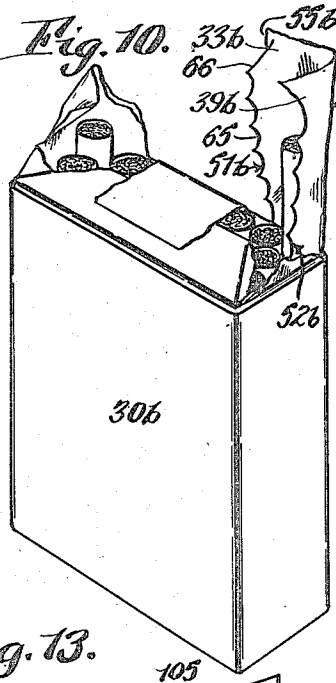


Fig. 11.

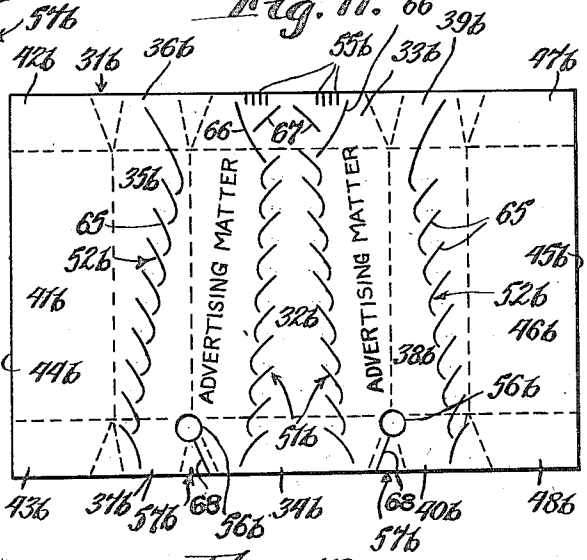


Fig. 13.

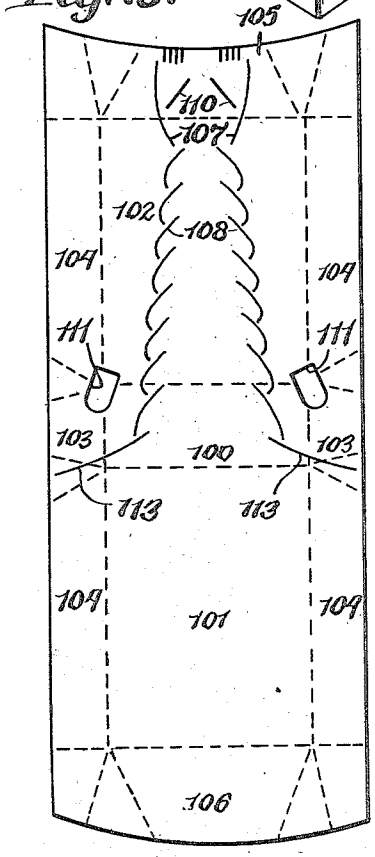
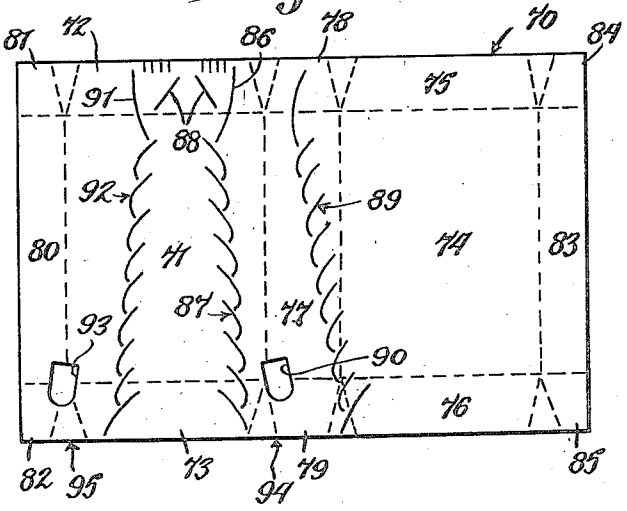


Fig. 12.



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EJECTOR FOR CIGARETTE PACKAGES OR THE LIKE

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Fig. 14.

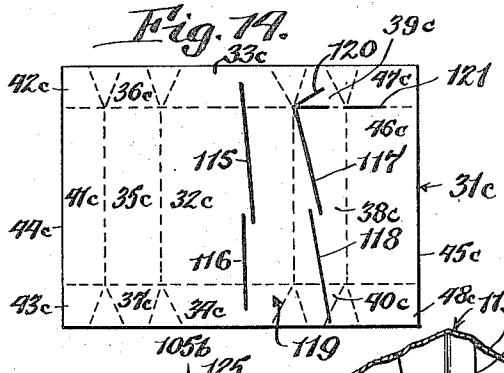


Fig. 16.

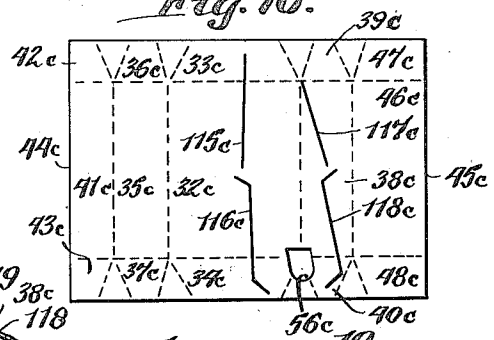


Fig. 15.

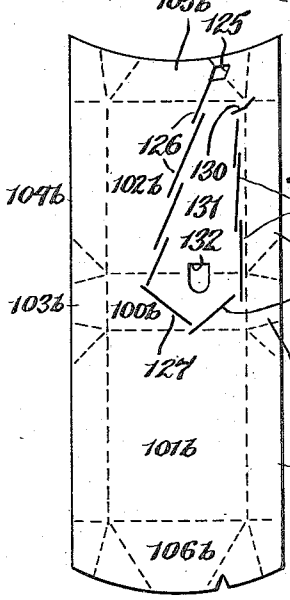


Fig. 18.

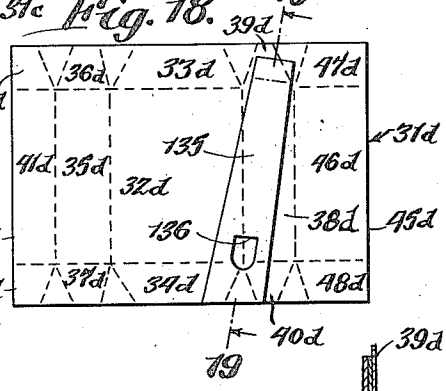


Fig. 17.

Fig. 19.

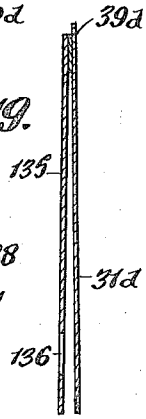


Fig. 21.

Fig. 20

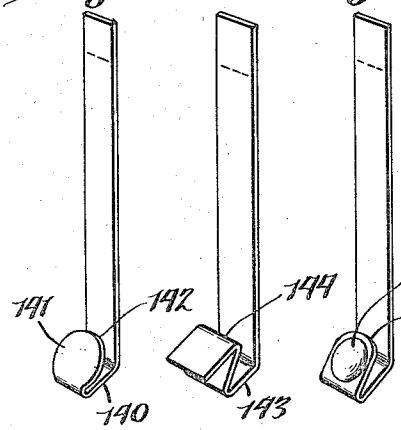


Fig. 22.

Fig. 23.

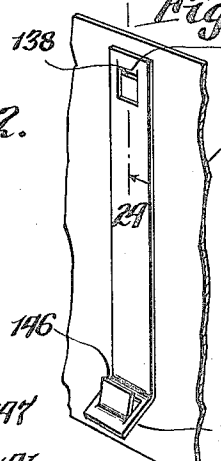
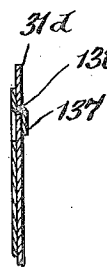


Fig. 24.



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Patented Oct. 3, 1933 1,928,663

UNITED STATES PATENT OFFICE

1,928,663

EJECTOR FOR CIGARETTE PACKAGES OR THE LIKE

Clifford H. Georger, Buffalo, N. Y.

Application September 9, 1932. Serial No. 632,369

13 Claims. (Cl. 206—56)

This invention relates to an ejector for cigarette packages or the like, and more particularly to an extremely inexpensive ejector which is provided in or made a part of a cigarette package and which is so designed that as a part of the opening of the package or as a separate operation following the opening of the cigarette package it is lifted to partly or completely pull out one or more cigarettes from the package, the first cigarette in a package being the most difficult to remove and the subsequent cigarettes being easily taken from the loosened pack. By this means the opening of the pack and the removal of the first few cigarettes is greatly facilitated and the invention also provides a novel and interesting accessory to the cigarette package.

One of the principal objects of the present invention is to provide an ejector which may be incorporated in a package of cigarettes without appreciable increase in cost or which can be incorporated as a part of the cigarette package without any additional cost whatsoever. Another object is to provide such an ejector which requires practically no room so that the bulk of the package is not increased by the addition of the ejector. For these purposes the ejector is either made of paper or is made from the thin, flexible, cellulose sheet material suitable for wrapping which is now commonly employed as the outer wrapper of cigarette packages.

Another object is to provide such an ejector which can be readily provided in the cigarette package during the machine operation of filling and closing the package and which when enclosed in a cigarette package lies flat against the outside of the cigarettes and is formed so that as it is withdrawn upwardly, provides a shoulder which engages the under corner of at least one cigarette and draws the cigarette upwardly. The ejector is also preferably so formed that it exerts a less positive lifting force against one or more cigarettes adjacent the one positively lifted by the shoulder so that a group of two or three cigarettes is elevated to different heights.

A further purpose is to provide such an ejector which can be attached to or made a part of the wrapper for the cigarettes so that as the cigarette package is torn open the ejector is automatically lifted to lift one or more cigarettes thereby not only facilitating the removal of the cigarettes but also providing a novel and interesting adjunct to a cigarette package, the first few cigarettes being mysteriously lifted without apparent cause.

Another object of the present invention is to provide such an ejector which can be made from the thin, flexible, cellulose sheet material now commonly employed for wrapping cigarette packages, this material having a number of peculiar characteristics and advantages requiring the provision of special forms to insure the proper ejection of a cigarette each time the package is opened.

A further aim is to provide such an ejector which can be incorporated as a part of an inner wrapper of the thin, flexible, cellulose sheet material employed for wrapping cigarettes thereby avoiding the necessity of providing a special separate ejector in each package of cigarettes and permitting of the use of bright colored transparent sheets which makes the cigarette package extremely attractive.

Another purpose is, in such a combined wrapper and ejector of cellulose material, to provide such a wrapper which can be easily and reliably handled by the automatic machinery now employed for packing and wrapping cigarettes.

A further aim is, in such a combined wrapper and ejector of cellulose material, to provide an ejector which is readily and reliably torn from the wrapper in opening up the package and is automatically lifted as a part of the opening of the package to withdraw the first few cigarettes from the package.

Another purpose is, in such a combined wrapper and ejector of cellulose material, to provide a pair of ejectors at opposite ends of the package so that if the package is opened at either end one of the ejectors will operate to lift the first few cigarettes from the package.

A further object is to provide an ejector for cigarette packages which, after being used, is torn out and thrown away, this permitting advertising matter to be printed upon the ejector, this advertising matter being thereby distributed around in places generally conspicuous to the public as in ash trays and other receivers.

Another object is to so form the combined wrapper and ejector that the opening of the package and the use of the ejector necessarily involves the destruction of the government stamp which is sealed over the upper side of the package.

In the accompanying drawings:

Figure 1 is a perspective view of a paper covered cigarette package and showing one end of this package torn open and the first three cigarettes elevated from the package by a combined wrapper and ejector made in accordance with my invention.

Figure 2 is a perspective view showing the com-

bined inner wrapper and ejector shown in Fig. 1. The combined inner wrapper and ejector here shown is made of thin, flexible, cellulose, transparent sheet material suitable for wrapping, and is shown partly opened up to illustrate the operation of the invention.

Figure 3 is a plan view of the combined cellulose wrapper and ejector shown in Figs. 1 and 2, the same being shown flattened out and the dotted lines indicating the crease lines which are made during the operation of packaging the cigarettes in the wrapper.

Figure 4 is an enlarged, perspective view, viewed from the inside of the pack, of the bottom of the ejector forming part of the combined wrapper and ejector shown in Figs. 1–3.

Figure 5 is a vertical section through the inner cellulose wrapper of the package of cigarettes shown in Fig. 1 and showing a number of cigarettes packed tightly therein, the wrapper being in condition to be opened up.

Figure 6 is a fragmentary view, similar to Fig. 5, showing the inner wrapper as being partly open.

Figure 7 is a similar fragmentary view showing the package fully opened and a number of cigarettes elevated from the pack through the opening.

Figure 8 is a view similar to Fig. 2, showing a modified form of the invention in which the ejector is separate from the inner wrapper but automatically operates to elevate one or more cigarettes on opening the wrapper.

Figure 9 is a plan view of the separate ejector shown in Fig. 8, the dotted lines being the crease lines formed in folding the ejector and wrapper around the cigarettes.

Figure 10 is a perspective view, similar to Fig. 1, showing a pack of cigarettes enclosed in an inner wrapper of flexible, sheet cellulose material and this wrapper being enclosed by an outer paper wrapper and showing a form of my invention in which a pair of ejectors are so incorporated in the inner cellulose wrapper that upon opening either end of the cigarette package one or more cigarettes will be automatically elevated to a position where it can be easily withdrawn.

Figure 11 is a plan view of the inner wrapper and pair of ejectors employed in the form of the invention shown in Fig. 10.

Figure 12 is a view similar to Fig. 11 showing a modified form of a combined inner cellulose wrapper and double ejector.

Figure 13 is a view similar to Figs. 11 and 12 and showing a form of inner cellulose wrapper and double ejector in which the wrapper is in the form of a long, narrow strip, the ends of which meet at the top of the package in contradistinction to meeting at one side of the package as in the forms shown in Figs. 11 and 12.

Figure 14 is a plan view of an inner cellulose wrapper, similar to Fig. 3, showing a different manner in which this wrapper may be cut to provide an ejector.

Figure 15 is a fragmentary, perspective view of the lower corner of the combined cellulose wrapper and ejector shown in Fig. 14 and showing the manner in which this ejector folds so that upon opening the package at least one cigarette will be elevated to a position for convenient withdrawal.

Figures 16 and 17 are plan views of a combined inner cellulose wrapper and ejector similar to Figs. 3 and 14 and showing other ways in which the wrapper can be cut to provide an automatic ejector.

Figure 18 is a plan view of an imperforate cigarette wrapper and showing an ejector of sheet cellulose material glued to the wrapper in such a position that upon opening the wrapper the cigarette will be automatically ejected.

Figure 19 is a section taken on line 19—19 of Fig. 18.

Figures 20, 21 and 22 are perspective views of paper ejectors which can be glued to the wrapper for the cigarettes and which are so formed at their lower ends that upon lifting the ejectors the lower ends will open up to form a shoulder for elevating one of the cigarettes in the package.

Figure 23 shows a further modified form of the cigarette ejectors shown in Figs. 20 and 22 and also showing this ejector secured to the inner wrapper of the cigarette package by an offset lip which extends through an opening provided in the wrapper.

Figure 24 is a section taken on line 24—24, Fig. 23.

The form of the invention shown in Figs. 1–7 shows a combined inner wrapper made of sheets of transparent sheet cellulose material in which the wrapper is so cut and folded as to provide a single ejector which becomes operative during and as a part of the operation of tearing open the upper end of the wrapper to lift a corner cigarette and one or more adjacent cigarettes part way from the package so as to be capable of being readily withdrawn. In Fig. 1 is illustrated a perspective view of a package of cigarrettes having one end of its top opened and a few of the corner cigarettes partly elevated. As shown in Fig. 1 the package of cigarettes is enclosed by an outer paper wrapper or cover 30, this outer paper wrapper or cover being folded during the operation of folding the inner cellulose wrapper 31 shown in Fig. 2. The outer paper wrapper 30 forms no part of the present invention and consequently will not be described in detail. The inner wrapper 31 is preferably made of thin, flexible, cellulose sheet material suitable for wrapping and as shown is transparent and may be colored any desirable color, a colored cellulose material for this purpose forming a highly attractive package, the colored cellulose material becoming visible on opening the package. The form of the inner cellulose wrapper is best illustrated in Fig. 3 in which the wrapper is folded out flat, the dotted lines indicating the fold or crease lines which occur upon forming the sheet into the box-like form shown in Fig. 2. Referring to Fig. 3, the crease lines, indicated by dotted lines, divide the wrapper into a large, central, rectangular area 32 which forms one of the broad side walls of the folded wrapper and above and below this side wall 32 the crease lines enclose an upper tab 33 and a lower tab 34. On one side of the area 32 the crease lines enclose a narrow end wall 35 having an upper tab 36 and a lower tab 37. On the opposite side of the broad, central area 32 the crease lines enclose the other end wall 38, this narrow end wall 38 having an upper tab 39 and a lower tab 40. The crease lines also bound an area 41 beyond the end wall 35, this area 41 having an upper tab 42 and a lower tab 43 and its outer edge being secured, if desired, by suitable cement, to the outer edge 45 of an area 46, this area 46 forming a continuation of the end wall area 38

and having an upper tab 47 which, if desired, is cemented to the edge of the upper tab 42 and a lower tab 48 which, if desired, is cemented to the corresponding edge of the lower tab 43. It is apparent that as the blank illustrated in Fig. 3 is folded the area 32 becomes one of the broad sides walls of the wrapper, the areas 35 and 38 become the narrow end walls of the wrapper, and the areas 41 and 46 together form the other broad wall of the wrapper, thereby completing the box-like form of the wrapper. In closing the package so formed the lower tabs 37 and 40 are folded in first and then the tab 34 and the tab 43, 48 are folded over these tabs and over one another so as to enclose the bottom of the wrapper as illustrated in Fig. 2. In a similar manner the upper end of the package is closed by first folding down the end tabs 36 and 39, subsequently folding over these the side tab 42, 47 and lastly folding over the side tab 33, this upper side tab 33 thereby being on top. It will be understood that the triangular shaped portions between the various tabs fold in in the manner shown in Fig. 2.

The ejector is formed in this wrapper by suitably cutting the wrapper. One of these cuts is V shaped having one edge 50 which starts at the lower edge of the wrapper adjacent the center of the lower tab 34 and terminates adjacent the center of the corresponding uppermost tab 33 but stopping short of the upper edge of the wrapper. The other edge 51 of this V shaped cut is divergent and terminates adjacent that lower corner of the tab 34 which is nearest to the end wall 38. Another V shaped cut is provided which comprises one edge 52 which extends from the lower edge of the wrapper adjacent the lowermost corner of the tab 40 most remote from the tab 34 and extends upwardly at an angle to the uppermost corners of the walls 32 and 38. The other edge 53 of this V shaped cut is divergent and terminates at the lower edge of the wrapper adjacent the folded corner of the tab 48. Another cut 54 is also provided in the wrapper, this cut starting at the uppermost point of the V shaped cut formed by the edges 52 and 53 and extending along the upper, horizontal crease line to a point adjacent the center of the tab 47. In order to permit of readily tearing open the inner wrapper a V shaped nick 55 is cut in the uppermost edge of the tab 33 adjacent the uppermost point of the V shaped cut formed by the edges 50 and 51. The positive lifting of the corner cigarette is effected by catching the lower end of this cigarette in the lower edge of a cut-out 56, this cut-out or opening being provided at the junction of the corresponding corners of the walls 32 and 38 and their lower tabs 34 and 40.

From the description it is apparent that the cuts described provide an extension 57 which forms the ejector, this ejector extending diagonally downward across one of the lower corners of the pack and at this lower corner being provided with an opening in which the lower end of the cigarette is caught. In folding the inner cellulose wrapper 31, as previously described, it is apparent that that portion of the lower end of the ejector which is also a part of the end tab 40 folds over that portion of the lower end of the ejector which is a part of the lower side tab 34 and these portions are connected by the material 58 between these tabs. It is therefore apparent that when the wrapper is folded the lower end of the ejector will take the form and assume the position shown in Figs. 2 and 4. The elevation of the corner cigarettes from such a pack is effected automatically upon tearing open the upper end of the wrapper. The completely folded condition of the wrapper is illustrated in Fig. 5. In wrapping the cigarettes the tab 33 is uppermost and the person opening the package grasps this tab between his fingers on opposite sides of the V shaped starting nick or groove and proceeds to tear through the center of the tab 33. Since this V shaped groove is adjacent the upper end of the V shaped cut formed by the edges 50 and 51 the cellulose material tears through to the upper end of this cut and thereby frees one side of the ejector. This position of the parts is illustrated in Fig. 6. The user then continues to tear open the pack by tearing around the upper edge of the paper wrapper 30 which encloses the inner cellulose wrapper 31 and the cigarettes. Since the cellulose material, forming the inner wrapper 31, is much stronger than the paper wrapper 30, it will resist tearing and the tearing and lifting of the paper wrapper 30 also operates to shift sidewise and lift the torn upper end of the ejector extension 57. As this extension is lifted its lower folded end which is folded under the cigarettes in the pack lifts to the position shown in Fig. 7. In this position the lower end of the ejector extension 57 is partly unfolded; the lower end of the corner cigarette is caught in the cut-off 56 and has been elevated and the two or more cigarettes immediately adjacent this corner cigarette have been partly lifted, though not to the same height as the corner cigarette, by the combined action of the elevation of the corner cigarette and the lifting of the folded in lower end of the ejector extension 57, as best illustrated in Fig. 7. The user then continues to tear open the upper end of the package and in doing so raises the corner cigarette to its maximum elevation after which the ejector extension 57 and the cigarette caught by it can be readily pulled from the package, the tear in pulling out the ejector following the cut 54 around the upper edge of the pack into the tab 47. When the tear reaches the end of the cut 54 it is apparent that the whole ejector can be easily torn from the wrapper and thrown away.

In Figs. 8 and 9 is illustrated a form of the invention in which the inner cellulose wrapper and the sheet cellulose ejector are made as separate parts and pasted or otherwise suitably secured together to operate in the same manner as the form of the invention shown in Figs. 1–7. In this form the outer cellulose wrapper 31*a* is of the same dimensions as the wrapper 31 and is folded along the same crease lines to provide the same walls and tabs as in the wrapper 31, these walls and tabs being designated by the same reference numerals and being distinguished by the addition of the sub letter "*a*". The wrapper 31*a* is unprovided with internal cuts except for a notch 55*a* which corresponds to the notch 55 in the sheet cellulose wrapper shown in Figs. 1–7. The ejector 60 is also made of sheet cellulose material and at its upper end is provided with a lateral extension 61 which is pasted or otherwise secured to the inside of the tab 33*a* of the wrapper. The ejector 60 is of the same form, occupies the same position and is folded in the same manner as the ejector extension 57 of the form of the invention shown in Figs. 1–7 and at its upper end the lateral extension 61 is separated from the ejector by a V shaped cut 62 and this lateral ex-

tension 61 is notched as at 63, this notch 63 registering with the notch 55*a*.

The tab 33*a* is folded over the other upper tabs of the wrapper 31*a* and in opening a package of cigarettes the user grasps the tab 35 and the extension 61 of the ejector between his fingers and on opposite sides of the starting notches 55*a* and 63. The tear from these notches cuts over to the V shaped cut 62 and thereby frees the ejector so that upon further tearing of the wrapper the ejector will automatically be lifted and raise the corner cigarette in the same manner as with the ejector in the form of the invention shown in Figs. 1–7. The ejector 60, after lifting the corner cigarette and adjacent cigarettes, is then pulled out and thrown away and the tearing out of the remainder of the upper part of the wrapper 30 can be easily effected.

The form of combined inner sheet cellulose wrapper and ejector shown in Figs. 1–7 presents some disadvantages in packaging the cigarettes by means of automatic machinery. Sheet cellulose, while possessing great tensile strength, is readily torn if a notch or other cut permits and it is also apparent that the unattached ejector extension 57 might present some difficulty in passing through an automatic packaging machine. The form shown in Figs. 1–7 also presents the disadvantage that if the user does not start at the notch 55, but starts at the other side of the usual government stamp (not shown) the corner cigarette at that side will not be ejected because no ejector extension is provided at this corner. The form of the invention shown in Figs. 10 and 11 is designed to avoid this difficulty. In Fig. 10 is shown a cigarette package having an outer paper wrapper 30*b* similar to the outer paper wrapper 30 shown in Fig. 1. This encloses an inner cellulose wrapper 31*b* which is of the same dimensions, has the same fold lines, and is folded to provide the same walls and tabs as the inner cellulose wrapper 31 in the form of the invention shown in Figs. 1–7. The walls and tabs formed by the crease lines in the form of the invention shown in Fig. 11 bear the same numerals as the corresponding walls and tabs of the form of the invention shown in Figs. 1–7 and the reference numerals designating these parts in Fig. 11 are distinguished from the reference numerals designating similar parts in the form shown in Figs. 1–7 by the sub letter "*b*".

In the same manner as in the form shown in Figs. 1–7 the inner cellulose wrapper 31*b* is formed to provide an ejector extension 57*b* which is arranged and folded in the same manner as the ejector extension 57 in the form shown in Figs. 1–7. Instead, however, of separating this ejector extension by the two long V shaped cuts shown in Figs. 1—7, this extension 57*b* is separated from the body of the inner cellulose wrapper 31*b* by a series of stepped C shaped cuts 65. These cuts form perforated lines which separate the ejector extension 57*b* from the body of the cellulose wrapper and these lines 51*b* and 52*b* correspond in position and inclination to the edges 51 and 52 of the ejector extension 57 in the form shown in Figs. 1—7. These C shaped cuts are particularly adapted to provide a perforated tear line through the sheet cellulose material from which the inner wrapper 31*b* is made. The lower end of each of the C shaped cuts 65 terminates above the next lower C shaped cut but at a point intermediate the ends of the next lower C shaped cut 65. The formation of the C shaped cuts provides a wrapper which can be subjected to comparatively great tensile strains, both endwise and sidewise since these C shaped cuts form, in effect, a perforated line in contradistinction to the long cuts in the form of the invention shown in Figs. 1–7. Since by the provision of these C shaped cuts 65 the wrapper can be subjected to both lateral and longitudinal stresses it is apparent that the wrapper is better adapted for automatic packaging machinery than the form of the invention shown in Figs. 1–7.

A curved cut 66 leads from adjacent the upper edge of the cellulose wrapper to a point adjacent the center of the uppermost C shaped cut 65 of the tear line 51*b* and to insure the tearing of the wrapper into this cut from the starting notches 55*b* another diagonal cut 67 is provided which leads toward the cut 66. The uppermost C shaped cut 65 of the line of these cuts 52*b* is extended to a point adjacent the upper edge of the wrapper.

The form of the opening 56*b* is also somewhat different from the corresponding opening 56 in the Figs. 1–7 form of the invention. It has been found that with the opening 56, the user will sometimes withdraw the cigarette so rapidly that the corner cigarette is thrown into the air and falls to the floor. To avoid this the opening 56*b* can be made round and provides with a cut 68 which extends diagonally to the bottom of the cellulose wrapper. With this cut the opening 56*b* will catch and lift the cigarette but will pull free if too much strain is exerted, and hence cannot shoot the cigarette in the air.

It is therefor apparent that when the user tears the upper tab 33*b* from the starting notches 55*b* into the cut 66, this cut leads into the line 51*b* of C shaped cuts 65. As the user continues to tear open the cigarette package along the upper, horizontal crease line he also lifts on the ejector 57*b*, tearing along the line 51*b* of C shaped cuts. The corner cigarette is thereby lifted upon being caught in the opening 56*b* and is elevated. As the user continues to tear open the package and continues to lift the ejector 57*b* he tears along the line 52*b* of C shaped cuts by means of which the ejector 57*b* is torn free from the body of the wrapper and is pulled out and thrown away.

In the event that the user grasps the opposite side of the tab 33*b* in opening the pack another ejector 57*b* is provided on this side of the package as well so that the corresponding corner cigarette on this side of the package will be elevated, as best illustrated in Fig. 10. It is obvious that the left hand ejector extension 57*b* and the associated cuts which provide for the proper operation of this ejector extension, are exact counter parts of the corresponding right hand ejector extension 57*b* and its associated cuts, the left hand ejector extension 57*b* extending diagonally across the opposite corner to that served by the right hand ejector extension 57*b*. The same reference numerals have therefore been applied to the parts associated with the left hand ejector extension 57*b* and the description of the operation of the left hand ejector extension 57*b* will be deemed to apply to the right hand ejector extension 57*b*.

In Fig. 12 is shown a modification of the invention. In this form an inner cellulose wrapper is provided which is provided with two ejector extensions but in one of these, instead of providing a line of C shaped cuts on both sides of the ejector extension, advantage is taken of the free edge of the wrapper. In this form of the invention the cellulose inner wrapper comprises a rectangular sheet 70 of cellulose material the

crease or fold lines (shown by dotted lines) of which form a broad, vertical wall 71 having upper and lower tabs 72 and 73, a similar opposite wall 74 having upper and lower tabs 75 and 76 and a narrow connecting wall 77 having upper and lower tabs 78 and 79. The crease lines also define a portion 80 adjacent the side of the area 71, this area 80 having upper and lower tabs 81 and 82 and the crease lines similarly define an area 83 adjacent the area 74, this area 83 having upper and lower tabs 84 and 85. The edges at the extreme left and right hand ends of the wrapper, as viewed in Fig. 12, are arranged adjacent one another either edge to edge or overlapping so that the areas 80 and 83 form the narrow end wall opposite to the end wall 77. These edges are unglued.

In this form of the invention the lower end tabs 79 and 82, 85 are folded in first and the tab 73 is next folded over these tabs. The folding of the bottom is then completed by folding the tab 76 under the tab 73. The folding in of the upper end of the wrapper is effected by first folding in the end tabs 78 and 81, 84. Over these is then folded the tab 75 and over the top of the tab 75 is folded the tab 72. The wrapper is cut to provide a curved line 86 which extends from a point adjacent the upper edge of the wrapper and adjacent the right hand upper corner of the tab 72 to a point below the upper, horizontal crease line and within the area of the wall 71. Starting notches are also provided and a diagonal cut 88 insures tearing into the curved cut 86. This line 86 at its lower end terminates just short of a line 87 of C shaped cuts, this line 87 extending diagonally downward and terminating adjacent the lower right hand corner of the tab 73, as viewed in Fig. 12. The other row 89 of C shaped cuts starts in the tab 78 adjacent the upper edge of the wrapper and terminates adjacent the lower left hand corner of the tab 76, as viewed in Fig. 12. Across the corresponding corners of the walls 71 and 77 and their lower tabs 73 and 79 an opening 90 is provided which is arranged to catch under the lower end of the cigarette arranged in this corner and elevate it from the rest of the cigarettes within the wrapper.

In a similar manner a curved cut 91 is provided to the left of the cut 86 and extends from the upper edge of the wrapper diagonally downwardly to a point within the wall area 71. This cut terminates in a line 92 of C shaped cuts which extends diagonally, in the opposite direction, toward the lower left hand corner of the tab 73, as viewed in Fig. 12, and substantially to the lower edge of the wrapper. Across the corners of the wall areas 80 and 71 and the corresponding lower tabs 82 and 73 an opening 93 is provided which is adapted to catch under the lower end of the cigarette arranged in the corresponding corner of the pack. When the cigarette package is folded along the crease lines, shown by dotted lines, in the manner described, it is apparent that if the user seizes the right hand end of the uppermost tab 72, as viewed in Fig. 12, and tears into the curved line 86, he will tear down this line and down the row 87 of C shaped cuts and in opening the wrapper will lift the ejector extension 94. Since the lower end of this ejector extension is folded under the cigarette arranged in the corresponding corner of the wrapper, this cigarette will be caught by the edge of the opening 90 and will be lifted. As the user continues to open the cigarette package and lifts the ejector extension 94 further he will tear up the line 89 of C shaped cuts and tear the ejector extension out of the package.

Should the operator seize the left hand side of the tab 72, as viewed in Fig. 12, he will tear into the curved cut 91 and in opening the package will tear down along the line 92 of the C shaped cuts and free the ejector extension 95. On further opening the pack this ejector extension being free will be lifted and the corresponding corner cigarette will be caught in the lower edge of the opening 93 and will be lifted. It is therefore apparent that by the use of the free vertical edge of the inner cellulose wrapper, the necessity of providing four lines of C shaped cuts, as in the form shown in Fig. 11, can be avoided and only three of such cuts need be provided, while still obtaining the advantages of a double ejector at opposite corners of the wrapper.

Some cigarette packaging machines are designed to apply cellulose wrappers around the bottom of the pack and up the sides, the end edges being suitably glued together and the upper ends of the two sides being folded over. In Fig. 13 is illustrated a form of cellulose wrapper which is suitable for this purpose. In this form of the invention the crease lines are indicated by dotted lines and define a bottom 100, front side 101, rear side 102, bottom flaps 103, side flaps 104, and top flaps 105 and 106. This wrapper is folded around a cigarette package in the same general manner as in the other forms of the invention, the wrapper being folded along the lines which are indicated by dots and the top flap 105 being folded over the top flap 106. This wrapper is folded directly around a group of cigarettes in the pack and the top flap is provided with two diagonal cuts 107 which extend from the upper edge of the flap 105 and converge to a point adjacent the center of the rear wall 102. These cuts terminate in diverging lines 108 of C shaped cuts 109, these cuts providing a tear line and also diverging outwardly and downwardly and terminating adjacent the outer ends of the bottom portion 100 of the wrapper. The usual starting notches and diagonal lead lines 110 are provided to insure tearing into the lines 108 of C shaped cuts. From the bottom of each of the lines 109 of C shaped cuts one or more tear lines or cuts 113 lead to the adjacent edge of the wrapper. At each corner between the rear wall 102, side flaps 104 and bottom 100, openings 111 are provided which serve to engage under the corner cigarettes to lift these cigarettes, the part designated at 112 forming the ejector.

When the wrapper is applied to the cigarettes the side edges 113 overlap but are uncemented and the flap 105 is folded over the upper flap 106. The usual government stamp (not shown) is applied over the central part of each wrapper and the user, in opening the cigarette package, can tear the flap 105 on either side of this government stamp. If he starts to tear the right hand side, as viewed in Fig. 13, he tears from the corresponding starting notches into the corresponding slots 107 or 110 and down the corresponding right hand line 108 of C shaped cuts 109 and into the tear lines 113 which lead to the adjacent edge of the wrapper. Upon now continuing to pull out on the ejector 112 pulled out of the package, carrying the corner cigarette with it, this cigarette being caught in the opening 111. It is also apparent that if the user tears to the left of the government stamp he tears into the corresponding tear lines 108 on that side of the

pack and lifts the corresponding cigarette in the same manner as shown in Fig. 10.

In Figs. 14 and 15 is illustrated a form of the invention which is quite similar to the form shown in Figs. 1—7 except that in place of the V shaped cuts to separate the ejector extension from the body of the wrapper, these cuts are replaced by straight cuts or slots 115, 116, 117 and 118. The wrapper 31*c* is of the same form and is folded in the same manner as the wrapper 31 shown in Figs. 1—7, the corresponding parts bearing the same reference numerals and being distinguished by the sub letter "*c*". This form of the invention is, however, unprovided with the opening 56, the corner formed in folding the ejector extension 119, as clearly shown in Fig. 15, being relied on to elevate the cigarette. The tear line 117 terminates in a V shaped tear line 120 which is continued by another tear line 121 to the end of the pack. It is apparent that when the wrapper 31*c* is folded with the upper tab 33*c* outermost, the user, on tearing the tab 33*c* tears into the tear lines 115 and 116 and upon further lifting the ejector 119 tears it out along the lines 118, 117, 120, 121. The corner formed at the bottom of this ejector extension 119 in folding the wrapper, as best shown in Fig. 15, catches the bottom of the corner cigarette and lifts it part way out of the pack.

Fig. 16 shows another form of the invention which is substantially similar to that shown in Fig. 15 except that the lines 115*c*—118*c*, which correspond to the lines 115—118, are of somewhat different form and no additional tear lines are provided. In this form an opening 56*c* is provided as in the form shown in Figs. 1–7.

In Fig. 17 is illustrated a form of the invention in which the cellulose wrapper is designed to be folded around the pack of cigarettes in the same manner as shown in Fig. 13. The general outline of this wrapper and the crease lines and method of wrapping it are the same as in the form shown in Fig. 13 and consequently the same numerals are applied to the different walls and tabs as are applied in Fig. 13, the sub letter "*b*" distinguishing these parts from the corresponding parts in Fig. 13. In this form a diamond shaped opening 125 is provided in the tab 105*b*, this being arranged at the right hand fold line of this tab so that when the wrapper is folded it forms a V shaped notch in this tab. This diamond shaped opening 125 connects with a series of tear lines 126 which extend diagonally downward toward the opposite side of the bottom portion 100*b*. From the bottom of these lines 126 a diagonal tear line 127 extends in the opposite direction and connects with another diagonal tear line 128 which extends horizontally at right angles to the bottom of another series of tear lines 129, these tear lines following the corner crease between the rear wall 102*b* and corresponding side tab 104*b*. The upper end of the series of tear lines 129 terminates in a tear line 130 which leads toward the edge of the wrapper and insures the ejector extension 131 being torn free from the other portion of the wrapper. An opening 132 is provided in the ejector extension 131 at the fold between the rear wall 102*b* and the bottom 100*b* so as to lift one of the cigarettes from the side of the pack.

When the wrapper cut as shown in Fig. 17 is opened the user tears into the V shaped notch formed by the diamond shaped opening 125 down the tear lines 126 and across the tear lines 127 and 128. As he lifts the partly freed ejector extension 131 the opening 132 catches a cigarette at the side of the pack and lifts it out. This same movement tears the ejector strip free along the tear lines 129 and 130 and the ejector extension is thereby torn out and thrown away.

In the form of the invention shown in Figs. 18 and 19 the general outline and method of folding the wrapper 31*d* is the same as that shown in Figs. 1–7 and consequently the same reference numerals are applied to the corresponding walls and tabs and distinguished from the form of the invention shown in Figs. 1–7 by the sub letter "*d*". In this form of the invention the ejector extension 135 is made of a separate piece of cellulose material and is suitably pasted or otherwise secured to the upper end tab 39*d*. The ejector extension 135 extends diagonally downward across one of the bottom corners of the wrapper and where it crosses this corner is provided with an opening 136. When the wrapper 31*d* is folded, the ejector extension 135 is also folded along the same crease lines and consequently its bottom is folded to fit into the bottom corner of the wrapper. Upon tearing the upper end of the pack, starting with the tab 33*d*, the ejector extension 135 is lifted and the corner cigarette is elevated from the rest of the pack. As the upper part of the wrapper is torn away the ejector extension 135 is pulled out and can be thrown away.

In Figs. 20–24 are illustrated ejector strips which are adapted to be secured to the inside of a cellulose or other form of wrapper. In the form shown in Figs. 20–22 the upper ends of the ejector strips are adapted to be glued to one of the upper flaps of the wrapper in the same manner as shown in Figs. 18 and 19 and in the form shown in Figs. 23 and 24 a finger 137 is punched out and fitted into a slot 138 in the wrapper to secure the ejector in position. These ejectors are preferably made of stiff paper and their bottoms are so formed as to lie under the lower ends of a cigarette and to become effective when the ejector is lifted. In the form shown in Fig. 20 the lower end of the ejector is folded under the cigarettes, as indicated at 140, and a reverse fold 141 is provided at the end of this folded under part. It is apparent that upon lifting this ejector strip the edge 142 of the reverse fold 141 catches in one of the cigarettes and lifts it.

In the form of the invention shown in Fig. 21 the lower end of the ejector strip is formed to provide a Z shaped horizontal folded end 143. This end provides a sharp corner 144 which, when the strip is drawn upwardly, catches in the lower end of a cigarette in the pack and lifts it. The form of the invention shown in Fig. 22 is substantially like that shown in Fig. 20 except that the part 141 is provided with an upwardly embossed button 147 so as to strengthen it.

In the form of the invention shown in Fig. 23 the bottom 145 of the ejector strip is bent horizontally under the group of cigarettes and a reversely directed lip 146 is punched up from this part 145. As this ejector strip is lifted the lip 146 catches in the lower end of one of the edge cigarettes and lifts it from the pack.

It will be noted that in all of the forms of the invention the ejector strip is designed to be removed and thrown away. These ejector strips can therefore be used for advertising by placing upon the strips suitable advertising matter, as indicated in Fig. 11. Since these strips are thrown into ash trays, waste baskets and other receivers where they can be seen, this ad-

vertising is extremely effective, particularly in calling the attention of the public to the wide spread use of the brand of cigarettes being advertised.

From the foregoing it is apparent that the present invention provides a very simple, inexpensive and reliable ejector which can be readily built into cigarette packages at little, if any, additional cost. It is also apparent that the various forms of the invention shown accomplish the purposes set forth in a very simple and effective manner.

It is apparent from the number of modifications shown that the invention is susceptible to wide variation in its application to packaged cigarettes or the like, and it is therefore apparent that the invention is not to be construed as limited to any of the specific forms disclosed but is to be accorded the full range of equivalents comprehended by the appended claims.

I claim as my invention:

1. In a cigarette package or the like, a strip of flexible material arranged lengthwise and alongside of the cigarettes, said strip having one end folded under the adjacent cigarette and being provided at the corner between its side part and its folded under end with a hole, that edge of said hole opposing the direction of withdrawal of said strip being arranged to engage the end corner of said cigarette whereby upon drawing said strip out of said package the said cigarette is positively caught by said edge and drawn out of the package.

2. In a cigarette package or the like, a strip of sheet cellulose material suitable for wrapping arranged lengthwise and alongside of the cigarettes, said strip having one end folded under the adjacent cigarette and being provided at the corner between its side part and its folded under end with a hole, that edge of said hole opposing the direction of withdrawal of said strip being arranged to engage the end corner of said cigarette whereby upon drawing said strip out of said package the said cigarette is positively caught by said edge and drawn out of the package.

3. In an oblong cigarette package or the like, a strip of flexible material arranged lengthwise and alongside of the cigarettes, the lower part of said strip being arranged at a lower corner of the package and being folded at said corner to conform to said package, said corner fold in said strip providing a horizontal end disposed under the corner cigarette, said strip being provided at said corner fold with an opening extending through the strip, that edge of said hole opposing the direction of withdrawal of said strip being arranged to engage the end corner of said cigarette whereby upon drawing said strip out of said package the said cigarette is positively caught by said edge and drawn out of the package.

4. In a cigarette package or the like, a strip of flexible material extending obliquely lengthwise and alongside of the cigarettes, said strip having one end folded under the adjacent cigarette and being adapted to lift said cigarette from the package upon drawing said strip upwardly, the upper end of said strip being arranged above the upper end of said cigarette and the oblique arrangement of the strip relative to the cigarettes providing an initial elevation of said cigarette upon moving the upper end of the strip sidewise.

5. In an oblong cigarette package or the like, a strip of flexible material extending obliquely lengthwise and alongside of the cigarettes, the lower end of said strip being arranged at a lower corner of the package and being folded at the corner to conform to said package, said corner fold in said strip providing a horizontal end disposed under the corner cigarette whereby upon drawing said strip upwardly the corner cigarette is lifted, the upper end of said strip being arranged above the upper end of the corner cigarette and the oblique arrangement of the strip relative to the cigarettes providing an initial elevation of the corner cigarette upon moving the upper end of the strip sidewise.

6. In a cigarette package or the like, a strip of flexible material extending obliquely lengthwise and alongside of the cigarettes, said strip having one end folded under the adjacent cigarette and being provided at said fold with an opening forming an edge adapted to engage the lower end of said cigarette when said strip is drawn out of the package, the upper end of said strip being arranged above the upper end of said cigarette and the oblique arrangement of the strip relative to the cigarettes providing an initial elevation of said cigarette upon moving the upper end of the strip sidewise.

7. In a cigarette package or the like, a strip of sheet cellulose material suitable for wrapping extending obliquely lengthwise and alongside of the cigarettes, said strip having one end folded under the adjacent cigarette and being adapted to lift said cigarette from the package upon drawing said strip upwardly, the upper end of said strip being arranged above the upper end of said cigarette and the oblique arrangement of the strip relative to the cigarettes providing an initial elevation of said cigarette upon moving the upper end of the strip sidewise.

8. In a cigarette package or the like having a wrapper folded over at its upper end, a strip of flexible material secured at its upper end to the folded over upper end of said wrapper and extending obliquely downwardly along side the cigarettes, said strip being formed at its lower end to engage and lift a cigarette, the oblique arrangement of the strip relative to the cigarettes providing an initial elevation of the cigarette upon moving the upper end of the strip sidewise and the attachment of said strip to the folded over upper part of said wrapper insuring said sidewise movement of said strip upon tearing away one side of said upper part of said wrapper.

9. In a cigarette package, a wrapper folded over at its upper end, said wrapper being formed with weakened portions providing a tear line, said tear line providing an ejector strip in said wrapper, the upper end of said ejector strip being a part of the folded over upper end of said wrapper and its lower end being formed to engage a cigarette upon being drawn out thereby to lift said cigarette from said package.

10. In a cigarette package, a wrapper made of sheet cellulose material suitable for wrapping and being folded over at its upper end, said wrapper being formed with weakened portions providing a tear line, said tear line providing an ejector strip in said wrapper, the upper end of said ejector strip being a part of the folded over upper end of said wrapper and its lower end being formed to engage a cigarette upon being drawn out thereby to lift said cigarette from said package.

11. In a cigarette package, a wrapper folded over at its upper end, said wrapper being per-

forated at intervals along a tear line which extends downwardly from its upper end to below the cigarette contained in said package and provides an ejector strip in said wrapper, said ejector strip at its lower end being folded under an adjacent cigarette whereby upon opening the upper end of said package and lifting that portion of said wrapper forming said ejector strip, said ejector strip is torn, along said tear line, from said wrapper and the adjacent cigarette is lifted from said package.

12. In a cigarette package, a wrapper made of sheet cellulose material suitable for wrapping, said wrapper being provided with a line of C-shaped cuts along a tear line which extends downwardly from its upper end to below the cigarettes contained in said package and provides an ejector strip in said wrapper, said ejector strip at its lower end being folded under an adjacent cigarette whereby upon opening the wrapper and lifting that portion of said wrapper forming said ejector strip, said ejector strip is torn, along said tear line, from said wrapper and the adjacent cigarette is lifted from said package.

13. In a cigarette package, a wrapper folded over at its upper end, said wrapper being formed with weakened portions providing a tear line, said tear line providing an ejector strip in said wrapper, the upper end of said ejector strip being a part of said wrapper and its lower end extending downwardly, obliquely to the cigarettes, and being folded under an adjacent cigarette, whereby upon tearing the upper end of said wrapper open to provide an opening at one side of the package for the withdrawal of the cigarettes, the ejector strip is moved sidewise, is torn from the wrapper, operates to provide an initial elevation of the adjacent cigarette and can thereafter be withdrawn to further elevate the cigarette.

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