Aug. 28, 1928. 1,682,104

C. H. ANDROS

PACKAGE

Filed June 25, 1923

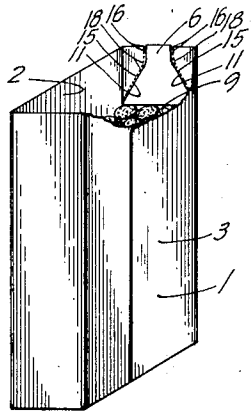


FIG. 1

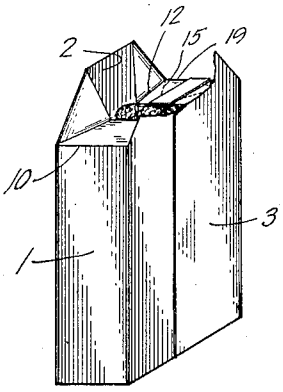


FIG. 2

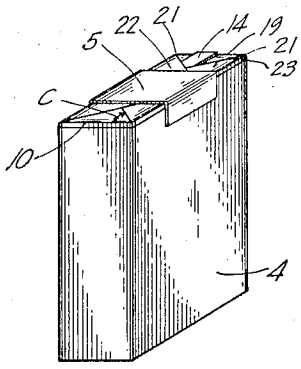


FIG. 3

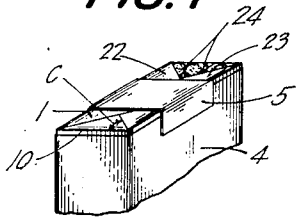


FIG. 4

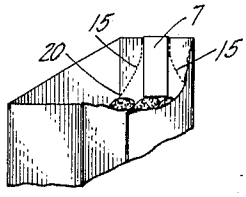


FIG. 5

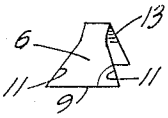


FIG. 6



FIG. 7

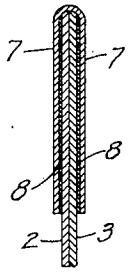


FIG. 10

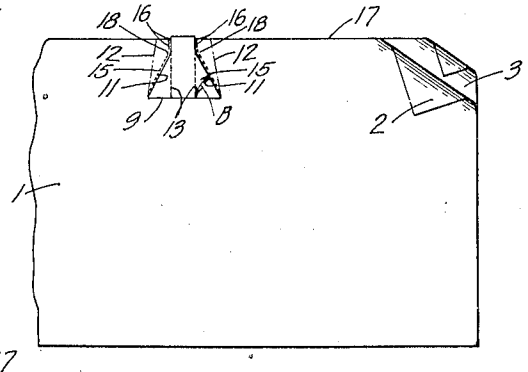


FIG. 9

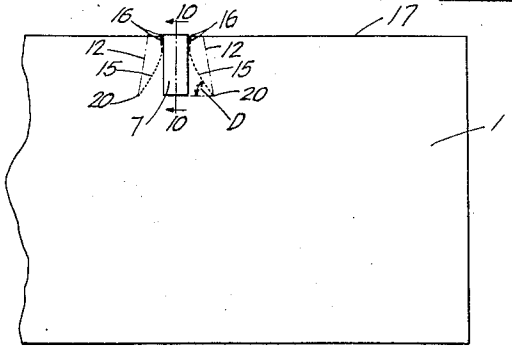


FIG. 8

INVENTOR

Charles H. Andros

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UNITED STATES PATENT OFFICE.

CHARLES H. ANDROS, OF ALBANY, NEW YORK.

PACKAGE.

Application filed June 25, 1923. Serial No. 647,597.

My invention relates to packaging and particularly to the packaging of tobacco products such as cigarettes which are sold to the consumer enclosed in flexible wrappers containing fifteen to twenty cigarettes.

While there are many advantages accruing to the manufacturer from the use of a package of this character, there are several disadvantages which are more apparent to the consumer and which are generally well recognized.

The general practice in opening a flexible package is to tear off a corner or portion of the wrapper so as to expose the contents and to provide an opening for the removal thereof. This operation is not conveniently performed, frequently results in damaging one or more cigarettes, and generally, if not always, results in the production of too large an opening in the package which not only destroys its stability after a number of the cigarettes have been removed but permits the unused cigarettes to fall from the package into the pocket of the consumer.

My invention contemplates the elimination of these disadvantages by providing a means which may be incorporated with the flexible wrapper during, or prior to, the packaging operation, whereby a portion thereof may be readily severed by the consumer to provide a conveniently located opening sufficiently restricted in size to permit the removal of but one cigarette at a time.

The object of my invention, therefore, is to provide a cheap and efficient opening means which will perform the function for which it is designed and which, when attached to the wrapper, will not interfere with the operation of, nor necessitate modifications in the machines now used to form the packages. A further object of my invention is to accomplish these results without destroying the stability of the container or rendering it pervious to atmospheric changes.

These and other objects are attained by the means hereinafter described in connection with the accompanying drawing in which—

Fig. 1 is a perspective view of a cigarette package at one stage of the packaging operation, with part of the wrapper torn away to show the attachment of my opening means;

Fig. 2 is a perspective view of a package at a succeeding stage of the packaging operation;

Fig. 3 is a perspective view of the complete package sealed with the usual revenue stamp;

Fig. 4 is a fragmentary view of a package and illustrates the opening therein produced by my opening means;

Fig. 5 is a fragmentary view of a package at the same stage of the packaging operation as shown in Fig. 1 and illustrates the application of my means in a modified form;

Figs. 6 and 7 are perspective views of specific forms of the strip of flexible material forming my opening means;

Figs. 8 and 9 are fragmentary plan views of the flexible wrapper used for enclosing the cigarettes and illustrate the attachment thereto of the specific forms of strips shown in Figs. 7 and 6 respectively;

Fig. 10 is a greatly enlarged and distorted section on the line 10—10 of Fig. 8.

In the drawing, 1 represents a composite flexible wrapper, well known in the art, which generally comprises a sheet of paper, 2, and a coextensive sheet, 3, of lead or tin foil adhesively attached thereto. In the packaging operation this wrapper, cut to exact size, is bound about the cigarettes as shown in Fig. 1. The upstanding portions of the wrapper above the cigarettes are then first infolded over the narrow edges of the package and then over the long edges of the package, as shown in Figs. 2 and 3, after which, the package is slipped into a paper cup, 4, where it is sealed and retained by a revenue stamp, 5. The folding operations and the wrapping are performed by machine so that the units produced are essentially identical.

In preparing the wrappers for the packaging operation, I propose, first, to weaken the wrapper by perforating or scoring it along predetermined lines so that it may be readily ruptured at these places in a predetermined direction. Second, I propose to adhesively attach to the portion adapted to be severed from the major portion of the wrapper, a strip of flexible material, such as thin, tough, paper or cloth, which will extend from the interior to the exterior of the completed package where it may be grasped and pulled by the consumer to effect the rupture of the wrapper along the lines of weakness. The sequence of the above operations is, of course, not important. I wish it understood however, that the wrappers provided with my opening means may be prepared as an article of manufacture entirely independent of the packaging operation, or the attaching of the flexible strip and the

weakening may be a part of, or immediately precede the packaging.

Referring to Figs. 6, 7, 8, 9 and 10, numerals 6 and 7, indicate two forms of flexible strip which may be used. 6 is obviously the more expensive form but produces uniformly good results with weakening of an indifferent character. 7 is the cheaper and preferred form but should be assisted in its operation by well weakened lines of rupture. In preparing the wrapper, strips, such as illustrated, may be cut from continuous rolls or otherwise, folded in the center as shown in Figs. 6 and 7, slipped over a long edge, 17 of the wrapper and secured by an adhesive, 8, (see Fig. 10) to both sides thereof. Here, again, the sequence of the operation is not important but the weakened portion of the wrapper and the attached strip should be located at such a distance from one of the shorter edges of the wrapper that they will be positioned as shown in Figs. 2 and 5 when the package is wrapped.

Referring to Figs. 1, 2, 6 and 9, the flexible strip, 6, comprises an isosceles triangular portion having a base, 9, substantially equal in length to the inside length of a narrow edge, 10, of the package; two sides, 11, which converge somewhat more rapidly than the adjacent lines of fold, 12, of the wrapper; and a narrow extension, 13, which forms a projecting tab, 14, in the completed package. Following the contour of the strip, 6, except along the base, 9, the wrapper is weakened by perforating or scoring, 15, and it may be slit or severed entirely for a short distance, 16, from the edge, 17. I also prefer to curve the weakening lines at, 18, to avoid any abrupt changes in the direction of rupture.

In attaching my opening means, the base, 9, should be so placed as to substantially coincide with the fold, 19, of the package, (see Figs. 2 and 3) and because of this fold which permits the wrapper to be easily torn along the line thereof no other weakening of the wrapper is here necessary.

Where the rectangular strip illustrated in Figs. 5, 7 and 8 is used the lines of weakness follow the contour of the strip as before, for a short distance from the edge, 17, and then curve smoothly outward into tangents which terminate in points, 20, coinciding with the corners, 21, in the completed package. The angle, B, in Fig. 9 and the angle, D, in Fig. 8, which are the angles made by the lines of weakness with the horizontal, are equal and should be somewhat larger than the angle, C, (see Figs. 3 and 4). By making the angles, B and D, larger than the angle, C, it is obvious that the perforations or other weakening are brought beneath the folded portions, 22 and 23, of the completed package which effect an efficient closure to prevent the loss of moisture.

It will be obvious that the weakening of the wrapper and the attachment of my flexible strip to both sides thereof does not effect any changes which will interfere with the operation of the packaging machinery now in use. The wrapper is as flexible as before and both sides thereof are substantially smooth.

It is well known that foil ruptures very easily so it should be evident that although the tab, 14, is adhered to the foil it may be readily lifted by the finger nail, or even by the fingers, and pulled to rupture the wrapper along the weakened lines. The triangular opening, 24, produced by this operation will permit the removal of all the cigarettes but only one at a time.

While I have illustrated and described what I believe to be the best forms of my invention and the manner in which it is best applied, I do not wish to limit myself to the precise details set forth, and it is understood that changes within the scope of the appended claims may be made without departing from the essence of my invention.

What I claim is—

1. In a cigarette package, the combination with a wrapper having oppositely disposed portions thereof adjacent the ends of the cigarettes first infolded, and other oppositely disposed portions successively infolded over said first portions to form a closure for the end of said package, of a strip of flexible material, folded over the edge of one of said first mentioned portions and permanently associated therewith to form a tab extending to the exterior of the package where it may be grasped and pulled to remove the triangular part of said first mentioned portion which is visible when the package is sealed.

2. As an article of manufacture adapted for use as a cigarette container, a wrapping sheet of flexible material of somewhat greater length than width, and having a strip of flexible material folded over one of the longer edges thereof and adhesively secured throughout to both sides of the wrapper.

3. As an article of manufacture adapted for use as a cigarette container, a flexible wrapper comprising substantially coextensive sheets of paper and metallic foil having a strip of flexible material folded over one edge thereof and adhesively secured throughout to both sides of the wrapper; the paper part of said wrapper being provided with lines of weakness diverging from said strip toward the center of the wrapper.

4. In a cigarette package, the combination with a flexible wrapper therefor having portions adapted to be successively infolded during the closing operation, of means for opening said package comprising a flexible strip folded over the edge and adhesively attached, substantially throughout its extent, to both sides of said wrapper at one of said portions which is first infolded.

5. In a cigarette package the combination with a flexible wrapper therefor having oppositely disposed end portions infolded together during the closing operation and one of said infolded portions being provided with lines of weakness, of an opening means comprising a strip of flexible material folded over the edge of said weakened, infolded portion and adhesively attached to the inner side thereof to effect the removal of said weakened portion when said strip is removed.

6. As an article of manufacture for use as a wrapper for a package, a sheet of flexible material having a portion thereof adjacent an edge provided with lines of weakened resistance and having a strip of flexible material folded over the edge of said sheet between said lines and adhesively attached to both sides of said sheet.

CHARLES H. ANDROS.