Dec. 12, 1950 T. A. WILL 2,533,255

OPENING MEANS FOR CIGARETTE WRAPPERS

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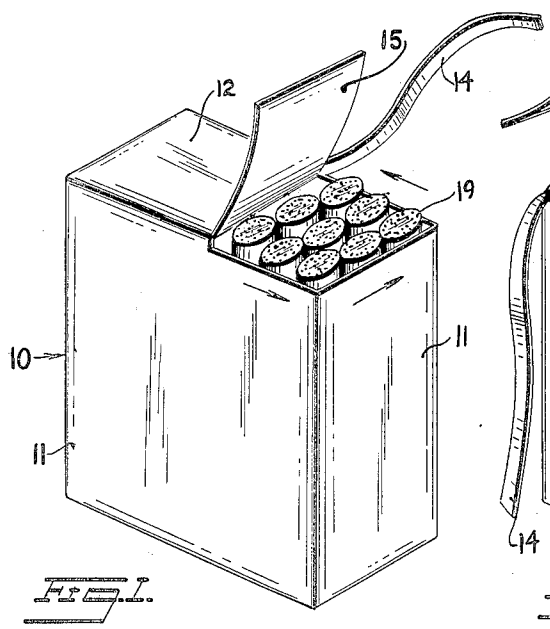


FIG. 1.

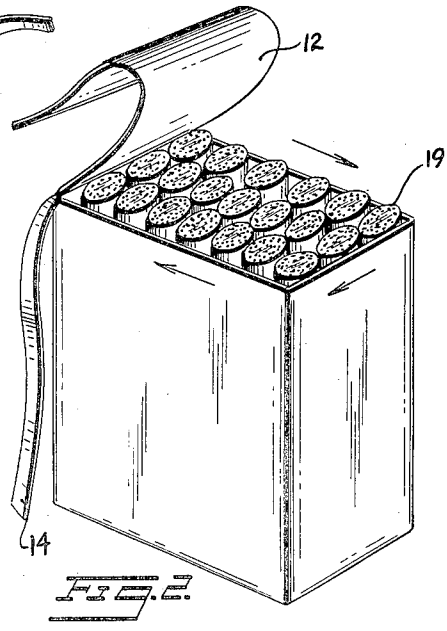


FIG. 2.

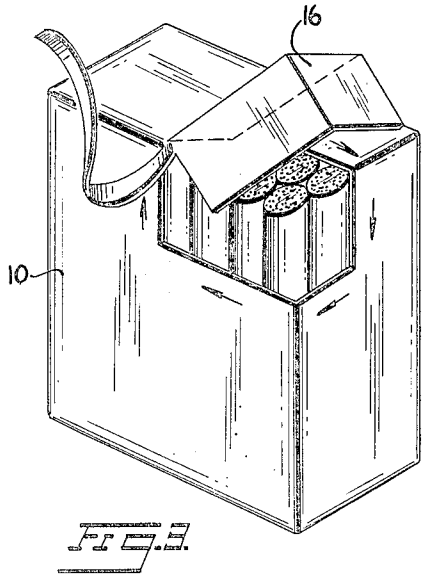


FIG. 3.

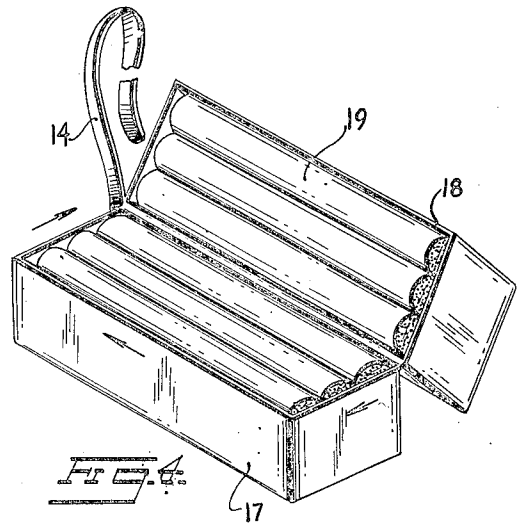


FIG. 4.

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OPENING MEANS FOR CIGARETTE WRAPPERS

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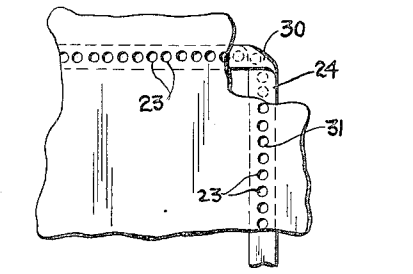


FIG. 11.

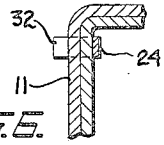


FIG. 6.

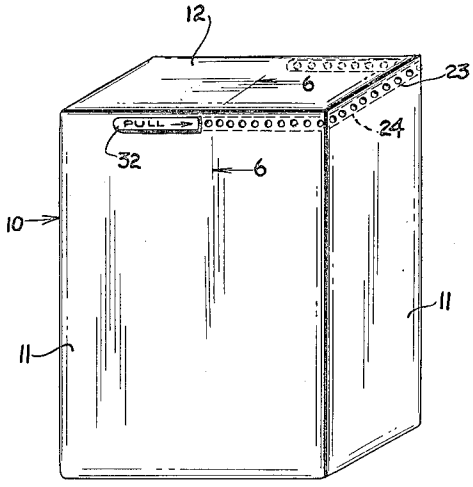


FIG. 5.

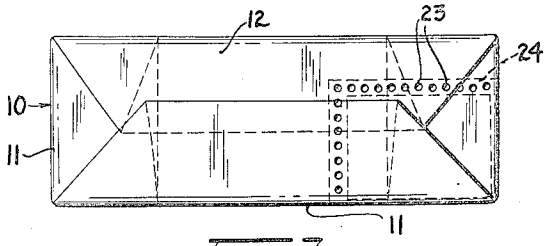


FIG. 7.

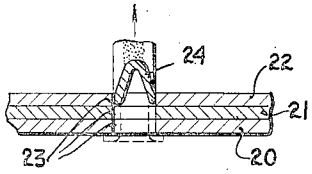


FIG. 10.

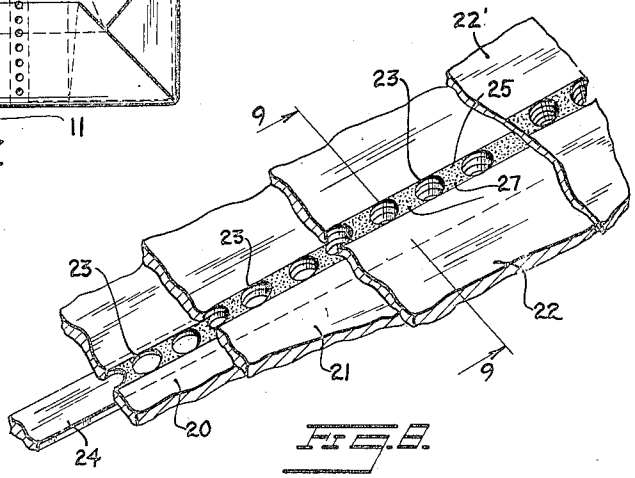


FIG. 8.

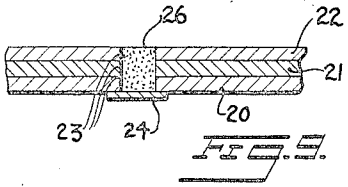


FIG. 9.

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OPENING MEANS FOR CIGARETTE WRAPPERS

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Application July 20, 1946, Serial No. 685,077

2 Claims. (Cl. 229—51)

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This invention relates to opening means for packages and in particular to a tear means for use in connection with cigarette wrappers.

A particular object of the invention is to provide a tear means which will not mutilate the package but will tear through the layers of the wrapper to make a clean cut so that sightly appearance of the opened package is maintained; the tear means being so arranged within the wrapper that the package may be torn open at different places to provide a dispensing opening.

A still further object of the invention is to provide in combination with a tear strip, a series of indentations or perforations that extend through all of the layers of the wrapper and which are arranged in register with the tear strip so that gluing that is employed to fasten the tear strip in place will fill said perforations and provide a tearing medium that is carried by the strip and is useful in cutting through the bridging portions of the wrapper left between said indentations or perforations.

Another important object of the invention is to provide a tear strip which, while it is illustrated for use in connection with cigarette packages, may be employed to open any type of package particularly one which is sealed by weatherproof wrapping; the present invention being particularly adapted to form such a wrapper in that the perforations or indentations that are made in the wrapper are filled with a sealing adhesive and while the filling assists in the tearing action, it also maintains the package weatherproof.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a view in perspective of a tear strip applied to one end of the top portion of a cigarette package.

Fig. 2 is a view in perspective showing the application of a tear strip that may be used to sever three edges of the top of a package.

Fig. 3 is a view in perspective of the tearing device arranged to cut out one corner of the upper portion of a package.

Fig. 4 is a view in perspective showing the use of a tear strip that may be pulled across the bottom, top and side of a package to open the same along its center.

Fig. 5 is a view in perspective of the cigarette

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package illustrated in Fig. 1 before the same has been opened.

Fig. 6 is an enlarged section on the line 6—6 of Fig. 5 showing the relative arrangement of the tear strip in the package.

Fig. 7 is a top plan view of the package illustrated in Fig. 3, showing the arrangement of the tear strip with respect to the overlapped section of the top of the package.

Fig. 8 is an enlarged view in perspective illustrating the assembled relation of the inner, outer and intermediate plies of wrapping material, showing the indentations or perforations therein and the tear strip.

Fig. 9 is a section on the line 9—9 of Fig. 8, showing the method of adapting the tear strip to all of the layers of the wrapping material.

Fig. 10 is a view similar to Fig. 9 showing the tear strip in the process of severing layers of the wrapper through the perforations or indentations therein.

Fig. 11 is a fragmentary view of a portion of a wrapper showing the arrangement of a turn in the tear strip.

Referring to the drawing in detail, the numeral 10 indicates, throughout all of the views, the package of cigarettes having the usual sides 11 and top 12. The sides or top are to be torn open to facilitate removal of cigarettes from the package. Each of the packages is provided with a tear strip 14 which may be made out of any suitable material that is tougher than the paper and foil out of which the package is made. As illustrated in Fig. 1, the tear strip 14 is positioned about the upper edge of the package and extends substantially half way therearound so that when it is pulled in the direction indicated by the arrows it will provide an open flap 15 to permit removal of the cigarettes from the package and to thereafter close the latter.

The construction illustrated in Fig. 2 is somewhat similar to that illustrated in Fig. 1 except that the tear strip 14 is used to tear three sides 11 of the package so that the top 12 may be completely opened for the removal of the contents of the package. In Fig. 3, the tear strip 14 is arranged to tear through the center of the top, down one end of the package and around the edge of the package to provide for the tearing of the corner piece 16 which may be torn completely off if desired or may be left to provide a cover for the opened package. In Fig. 4, the tear strip 14 is arranged to tear across the bottom and top of the package and up one side thereof, as indicated by the arrows, to divide the package

at its longitudinal center into the sections 17 and 18 from which the cigarettes 19 may be removed as desired.

In package opening strips of the character referred to, one of the objections to the use of the tear strip has been the mutilation of the package due to the resistance of the plies of wrapper material that have to be cut through by the string or strip material. The string is objectionable because it is difficult to handle in the manufacture of the wrapper and it is preferable to use a flat tear strip that can be conveniently cemented or otherwise attached to the wrapper when the latter is manufactured. In order to facilitate the tearing action, the inner paper ply 20, the intermediate foil wrapper 21, the cover wrapper 22 and the outer cellophane wrapper 22' are formed with aligned perforations 23, after the plies of material are assembled preparatory to the cementing thereon of the tear strip 24. This tear strip 24 is held in place by cement or other adhesive preferably of a transparent nature that is applied to the ply material along the zone 25 so that it fills the aligned perforations 23 and provides, as illustrated in Fig. 9, a series of solid cement masses 26 filling the perforations 23 and securing the tear strip 24 in place.

The perforations 23 being substantially close together, provide between them fragile bridging portions 27 and it is evident that a pull on the tear strip 24, as shown in Fig. 10, will lift the cement fillings 26 and cause them to tear through the bridging portions 27 between the perforations 23 so that a clean cut tear is provided through all of the layers of the package wrapper. As illustrated in Fig. 11, the tear string 24 or strip may be folded as at 30, at right angles, to provide a corner tear in the package in which instance the perforations or indentations 31 of the wrapper would follow the direction of the tear strip 24. The end of the tear strip as illustrated in Fig. 5 is brought out through a suitable opening in the wrapper and provides a pull tab 32 for convenient manipulation of the tear strip.

It is evident therefore that I have provided a tear strip 24 which is secured to a perforated zone that extends through all of the plies of material of the wrapper and which, with the cement or glue fastening agent, provides a solid tear strip through the material that will provide a clean cut, thus eliminating the jagged edges of a wrapper that is cut by an ordinary imbedded tear strip.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In a package having a wrapper formed of a plurality of adjacent plies of material, means for dividing off a portion of the wrapper to be separated from the remainder thereof for opening the package, comprising a tear strip extended along the innermost face of the inner ply of the wrapper dividing off the said portion, the plies of the wrapper being formed with aligned perforations, said aligned perforations being arranged closely adjacent one another in lines in alignment with said tear strip, and cement filling said aligned perforations securing the plies of the wrapper together and also securing said tear strip in position.

2. In a package having a wrapper formed of a plurality of adjacent plies of material, means for dividing off a portion of the wrapper to be separated from the remainder thereof for opening the package, comprising a tear strip extended along the innermost face of the inner ply of the wrapper dividing off the said portion, the plies of the wrapper being formed with aligned perforations, said aligned perforations being arranged closely adjacent one another in lines in alignment with said tear strip, and cement filling said aligned perforations securing the plies of the wrapper together and also securing said tear strip in position, said tear strip having one end extended through an opening in the wrapper providing a pull tab by which the tear strip may be pulled for opening the wrapper along said lines of aligned perforations.

THEODORE A. WILL.

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