

March 8, 1938.

M. E. BLIER

2,110,194

PACKAGE OPENER

Filed Jan. 29, 1937

Fig. 1

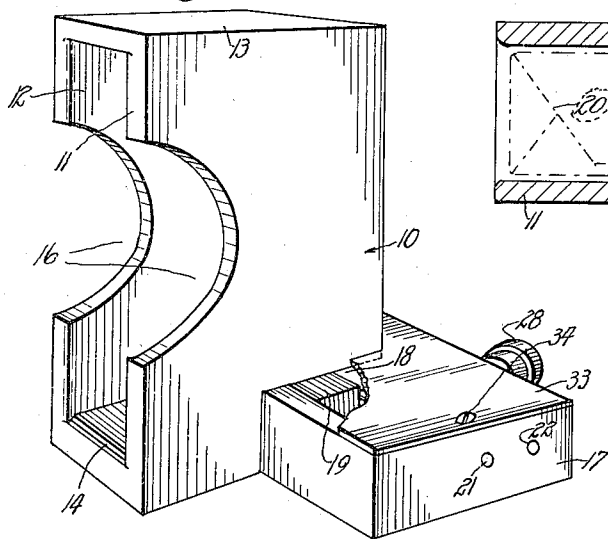


Fig. 3

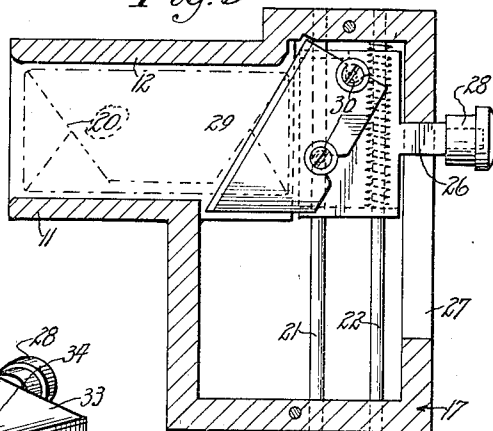


Fig. 2

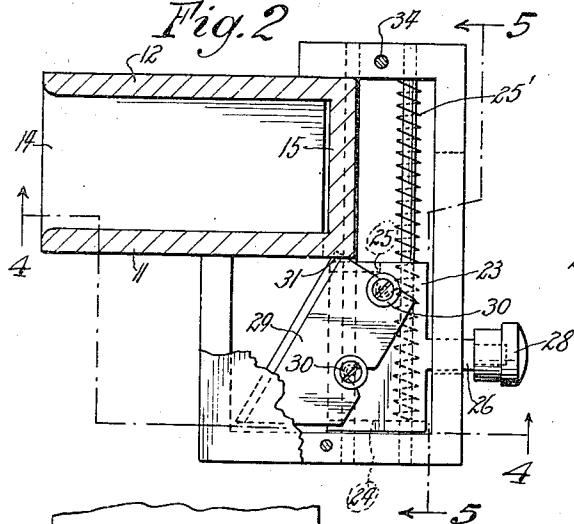


Fig. 5

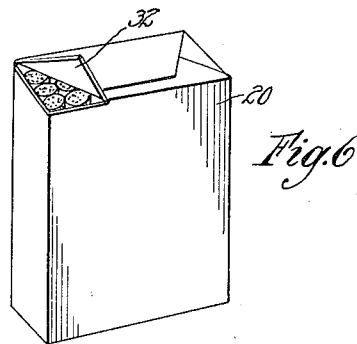
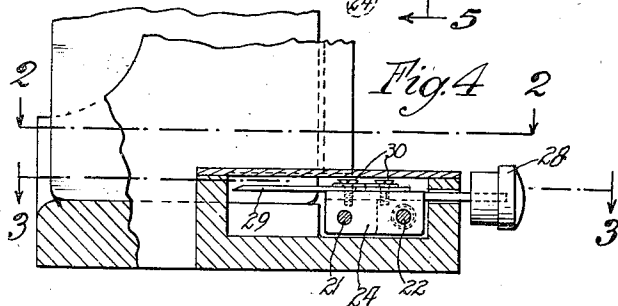
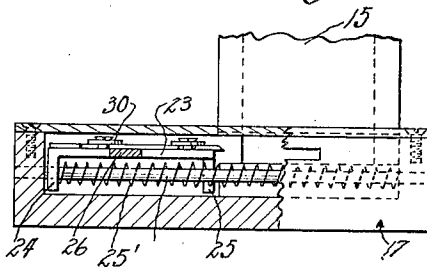


Fig. 6

Inventor
MAURICE E. BLIER
by Henry Peck
Attorney.

UNITED STATES PATENT OFFICE

2,110,194

PACKAGE OPENER

Maurice E. Blier, Chicago, Ill.

Application January 29, 1937, Serial No. 123,013

2 Claims. (Cl. 30—2)

The invention broadly relates to a device for opening packages and more particularly to a receptacle for cigarette packages where a slit is made in order to enable removal of the content.

Devices for the opening of packages are known where a blade or knife is caused to execute a slit or cut to provide an opening in the package. The known devices, however, have failed to take into consideration the frangible material and light construction of the package, with the result that the package becomes crushed or the content impaired, or an unsatisfactory cut is executed. Again, if strong material is used, then the cut is not initiated nor completed in a manner to give satisfactory results.

It, therefore, constitutes one of the principal objects of the invention to provide a simple and yet highly efficient device for opening packages.

A further object comprises the means of placing the package and the cutting blade in such relative position that the edge of the cutting blade attacks the corner of the package and at the base thereof, so that sufficient rigidity is available for initiating the cut and, thereafter the less rigid part is cut by drawing the edge through the material to provide a triangular flap with the base unsevered, so that the contents may be removed upon bending the flap outwardly and, thereafter, upon releasing the flap, the package is closed.

It is a further object to provide a cutting blade which is accurately guided so that the contents of the package shall not be damaged.

It is a further object to provide a cutting blade which is guided to first engage a corner of a package and thereafter cause the edge to execute a lateral movement to effect a slitting or drawing cut so that a clean and satisfactory cut is produced.

It is also an object to provide certain features of construction and arrangement tending to enhance the utility and efficiency of a device of the character specified.

With these and other equally important objects in view, which will become apparent from a perusal of the invention, the latter comprises the means described in the following specification, particularly pointed out in the claims forming a part thereof, and illustrated in the accompanying drawing, in which

Fig. 1 is a perspective view of the device constructed in accordance with my invention.

Fig. 2 is a horizontal section on the lines 2—2 of Fig. 4.

Fig. 3 is a horizontal section on the lines 3—3 of Fig. 4.

Fig. 4 is a horizontal section on the lines 4—4 of Fig. 2.

Fig. 5 is a vertical section on the lines 5—5 of Fig. 2, and

Fig. 6 is a perspective view of a cigarette package opened in accordance with my invention.

Referring to the several views of the drawing, 10 generally designates an upright rectangular container comprising side walls 11 and 12, a top wall 13, a bottom wall 14, and a back 15. The container is open at the front and the side walls are provided at the front with semi-circular cut out portions 16 to facilitate the introduction and removal of a cigarette package.

The casing 10 at the rear and near the bottom merges into a horizontal chest or casing 17, extending at right angles to casing 10, whose side walls 11, 12 overhang the casing 17 and define a slot 18 with a bottom block 19 provided in the casing 17.

The cigarette package 20, when introduced into the casing 10 has its rear lower end exposed in the slot 18 for a purpose presently to be described.

In the casing 17 are two horizontal, parallel pins 21 and 22, on which is slidably mounted a carriage 23 having a downturned flange 24 at the front, which is apertured to clear the pins. A flange 25, at the rear end, is also apertured for passage of one of the pins 21. A spring 25' surrounds the pin 22 bearing on the rear wall of casing 17 and on the flange 24 to hold the carriage in forward or idle position.

The carriage 23 has a lateral arm 26 projecting through a slot 27 in the casing wall and provided at the outer end with a button 28, whereby the carriage may be moved rearwardly against the tension of spring 25'.

To the carriage 23 is secured a removable blade 29 by a pair of screws 30. Of course, any other mode of securing the blade to the carriage may be selected, or if preferred, the blade may be made integral with the carriage instead of removable. The cutting edge of said blade is on a bias with the rear corner in alignment with the nearest reinforced corner of the package.

In use, when the button is moved rearwardly, the corner 31 of the blade 29 first engages the nearest corner which presents a rigid edge for initiating the cut or slit, and thereafter the further cut of the blade through the single layer of material is carried out without crushing the package or its content. The blade being on a bias executes a sliding cut resulting in a triangular flap 32 with the base unsevered and held resiliently to close the package. If preferred, in-

stead of a reciprocating blade, a pivotally mounted blade may be used provided the edge contacts first with the corner of the package and thereafter executes a sliding cut.

- 5 The casing 17 is closed by a cover plate 33 secured in position by a plurality of screws 34.

While the drawing shows a preferred embodiment of the invention, numerous changes and alterations may be made without departing from the spirit of the invention. I, therefore, do not
10 limit myself to the details of construction, as shown, but claim my invention as broadly as the state of the art permits.

I claim:

- 15 1. A device of the character described, comprising a receptacle for a package, and provided with an opening at the lower end to expose a corner of the package, a chest surrounding the exposed package corner and secured to said re-
20 ceptacle, a carriage mounted for reciprocation in said chest at right angles to the side of the package, means for guiding said carriage during reciprocation, and a blade secured to said carriage

with its edge at an acute angle to the side of the package so as to initially engage the exposed corner of the package prior to cutting said corner and cutting a triangular flap on the continued movement of said carriage.

2. A device of the character described, comprising a receptacle for a package and provided with an opening at the lower end to expose a corner of the package, a chest surrounding the exposed package corner and secured to said re-
10 ceptacle, a carriage mounted for reciprocation in said chest at right angles to the side of the package, means for guiding said carriage during reciprocation, and a blade secured to said carriage at an acute angle to the side of the pack-
15 age, the angular position of said blade being fixed throughout the reciprocation, said blade initially engaging the exposed corner of the package prior to cutting said corner and cutting a triangular flap on the continued movement of said
20 carriage.

MAURICE E. BLIER.