July 6, 1943. R. L. KAYE 2,323,335

CARTON HAVING ATTACHED CARTON OPENER

Filed June 29, 1940

Fig. 1.

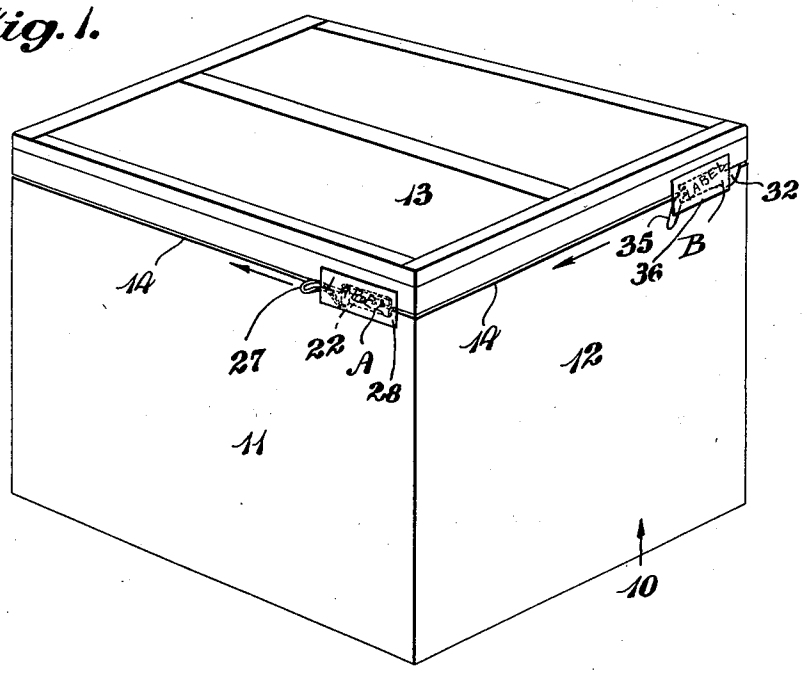
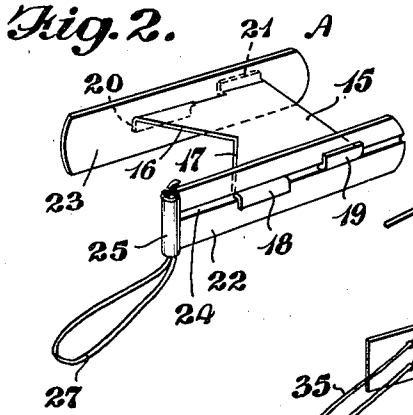



Fig. 2.



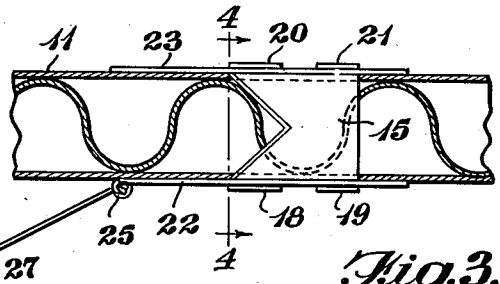




Fig. 3.

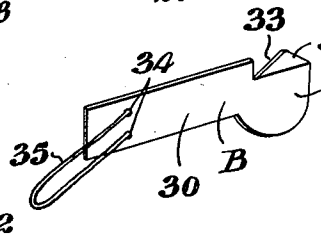



Fig. 5.

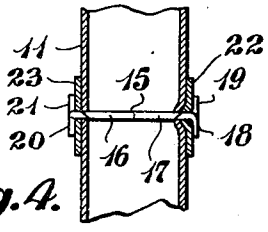



Fig. 4.

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## CARTON HAVING ATTACHED CARTON OPENER

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Application June 29, 1940, Serial No. 343,293

2 Claims. (Cl. 229—51)

The invention relates to paper cartons having assembled therewith a carton opener, wherein the opener is designed to be shipped with the carton, being affixed thereto and readily accessible for opening the carton.

One of the objects of the invention is to provide a simple form of opener adapted for various sizes of cartons. Another feature is to provide a carton opener having a pull string sealed with directions for opening. Another feature of the invention is the provision of a carton opener having a seal covering the opener and holding the same in assembled position upon the carton until needed in opening the carton.

The invention will be more readily understood by reference to the accompanying drawing and the further detailed description which are intended by way of illustration rather than by way of limitation.

In the drawing:

Fig. 1 indicates a carton shown equipped with one form of carton opener at one side thereof and provided with another form of opener at one end.

Fig. 2 is a perspective view of one form of opener including a cutting blade and two guide plates assembled therewith.

Fig. 3 is a transverse section through the carton showing the first form of box opener in position ready for shipment.

Fig. 4 is a section taken on the line 4—4 of Fig. 3, and

Fig. 5 is a perspective view showing a simplified form of cutter.

An ordinary form of shipping carton formed of corrugated paperboard is indicated generally by the reference numeral 10. This carton is provided with side walls, one of which is indicated at 11, and end walls, one of which is indicated at 12. These walls may be of any desired thickness and are preferably made of inner and outer layers with corrugations connecting the two as is usual in cartons of this type. It will be understood, however, that the invention is not limited to any particular form of carton. The top of the carton is indicated at 13.

According to the present invention the carton is shown as provided with a printed guide line or groove 14 herein shown as extending along the upper portions of the side and end walls and separating the side and end walls from the top. It will be understood, however, that the printed guide line may be placed in any desired position to open the box as required.

In Fig. 1 one form of carton opener or cutter A is shown assembled with the carton on the side wall 11 and a second form of cutter B is indicated on the end wall 12. It will be understood, however, that this showing is simply for convenience in illustrating the two types of cutters and a single cutter will generally be sufficient for use with a particular carton.

The carton opening A is shown in detail in Fig. 2 and comprises a blade member 15 having cutting edges 16 and 17 in V form. A pair of tabs 18 and 19 extend from one lateral edge of the blade and a second pair 20, 21 extend from the opposite edge of the blade member. These tabs are of substantial length and are intended to fit into corresponding slots in a pair of front and rear guide plates 22, 23. The plate 22 is designed to fit on the outside of the carton and is provided with a bead 24 adapted to slide in the groove 14 in the carton. The rear plate fits on the inside of the carton and holds the blade in cutting position. It will be understood that the carton cutter is assembled prior to the closing of the top of the box which is then sealed in the usual manner by means of sealing strips or the like. Owing to the length of the tabs 18, 19, 20 and 21 the cutter may be used with cartons having walls of various thicknesses. It will also be noted that the tongues are bent in opposite directions for a given plate so as to hold the cutter in assembled position.

The front plate 22 is shown as provided with an eye member 25 integral therewith for attachment of a pull string 27. This pull string is designed to be sealed to the box by means of a label 28 having printed instructions thereon describing the operation of the cutter. This label may also extend over the front plate of the cutter so as to conceal the same during shipment of the carton. Preferably a small portion of the pull string extends beyond the label so as to be in an accessible position.

When the carton has reached its destination and it is desired to open the box it is only necessary to grasp the end of the pull string and draw the cutter in the direction indicated by the arrows in Fig. 1, thereby bringing the V-shaped cutting edges 16 and 17 into operation. The bead 24 on the front plate of the cutter member rides in the groove 14 and insures even cutting. The rear plate 23, being a part of the assembled cutting device, slides on the inside of the box and serves as a guide.

A simplified form of carton cutter is indicated at B in Fig. 1 and is shown in detail in Fig. 5. This carton cutter is provided with a single guide

plate 30 which fits on the outside of the carton and has formed integral therewith a cutting blade 31, shown preferably projecting at right angles thereto and when the box is ready for shipment such blade extends into the box at any suitable position along the printed groove 14. This form of cutter is shown as provided with a thumb piece 32 integral with the plate 30 and with the cutting blade 31 and formed in the same plane as the guide plate 30. This thumb piece is shaped to fit the thumb of the operator so that by the application of pressure a blade 31 will be forced into the material of which the carton is composed. The cutting edge of the blade 31 is indicated at 33. The plate 30 is shown as provided with a pair of apertures 34 which may be used for the attachment of a pull cord 35 similar to the cord 27 employed in the first described modification of the invention. The pull cord 35 and preferably the entire exposed portions of the guide plate 30 and thumb piece 32 may be covered with a suitable seal 36 to hold the carton cutter in position. This seal should be provided with directions for opening the carton. When it is desired to open the carton the projecting end of the pull cord is grasped by the operator and pulled outwardly with sufficient force to break the seal. The carton cutter is then accessible and may be drawn lengthwise along the groove 14 with the blade 31 extending into the material of the box and held in position by means of the thumb piece 32 to which pressure is applied.

Numerous modifications and variations of the invention may be resorted to without departing from the spirit of the invention in its broadest aspects. It will be understood however that the two forms of carton cutters herein described, while both suitable for use in opening cartons and adapted to be shipped therewith, differ from one another in material respects and each possesses advantages over the other. Thus the first form of device is more positive in its operation but the second form of carton cutter is simpler and less expensive to produce. It will be further understood that only one carton cutter is essential with a particular carton.

I claim:

1. A carton cutter comprising a pair of spaced guide plates, a cutter blade connecting the guide plates, and secured thereto by means of bent-over tabs, said blade having a cutting edge extending between the two guide plates, one of the guide plates having a bead adapted to fit a groove formed in the exterior face of the carton.

2. A slidable carton cutter comprising a pair of straight parallel guide plates each adapted to closely engage the interior and exterior of a straight-sided box during the cutting operation, a separable plate member extending between the two guide plates and having a cutting edge, and means for adjusting the distance between the guide plates to conform to the thickness of the particular carton to which the cutter is applied.

ROBERT LEE KAYE.