

April 4, 1939.

C. S. REID

2,153,340

CARTON

Filed March 17, 1938

Fig. 1

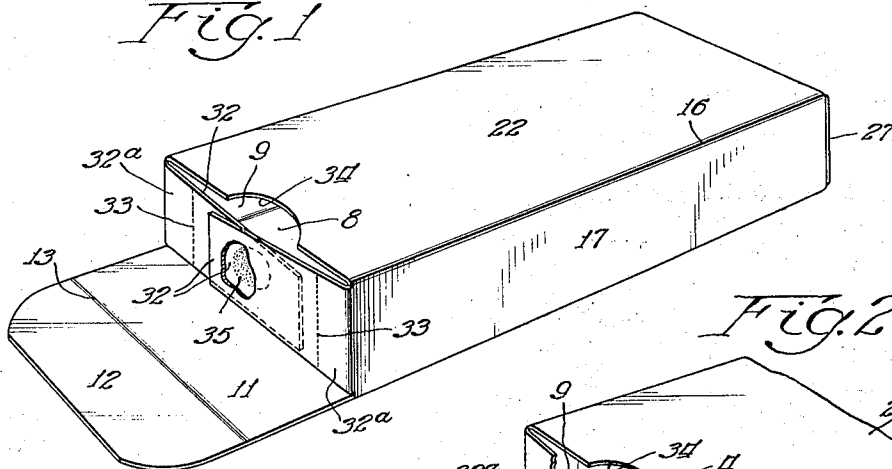


Fig. 2

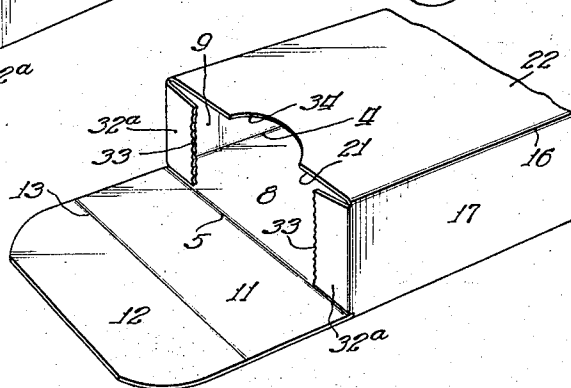
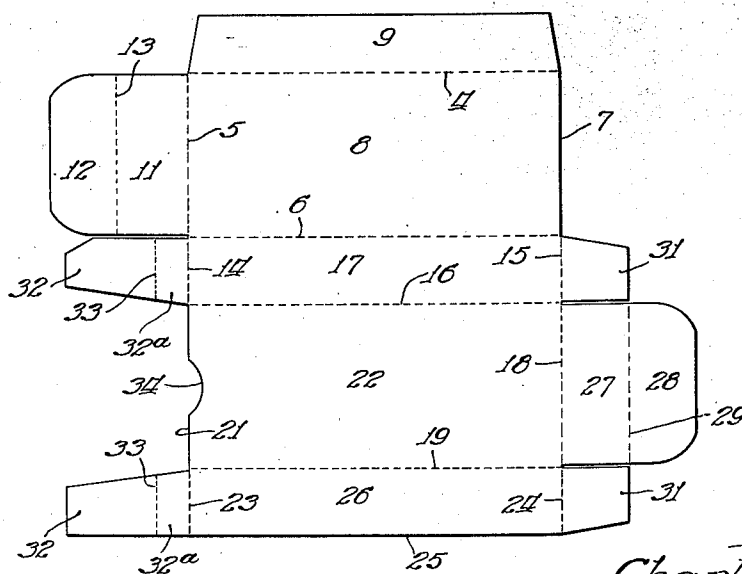


Fig. 3



Inventor:
Charles S. Reid
By: E. A. Wagoner
Atty.

UNITED STATES PATENT OFFICE

2,153,340

CARTON

Charles S. Reid, Philadelphia, Pa., assignor to
Container Corporation of America, Chicago,
Ill., a corporation of Delaware

Application March 17, 1938, Serial No. 196,348

6 Claims. (Cl. 229—38)

This invention pertains to packages made of frangible material such as paper, paper board, fiber board and the like, adapted to contain candy, cough drops, pills and other commodities and, more particularly, to what may be termed a pilferproof construction of packages or boxes of the character mentioned. The box chosen for illustration of the invention is well adapted for the packaging of candy mints and the like.

Packages used for dispensing small quantities of a commodity such as a number of small candies are usually of a size easily fitting within a person's pocket and ordinarily must be cheaply constructed in order to maintain a reasonable margin of profit both for the box maker and for the candy manufacturer. On the other hand the box should not be so cheaply made as to permit ready accessibility to the contents for surreptitious and wrongful removal thereof and should be of such character of construction as to give the purchaser reasonably easy access to the commodity. Furthermore, since the purchaser may use only a few of the commodity items at a time, the box should be so constructed as to permit it to be opened and closed a multiple number of times, and, when closed, to be and to remain relatively tightly closed so that dirt may not enter and the contents may not spill out.

Accordingly, one of the principal objects of the invention is to provide a simple, strong and economical construction for boxes of the character described which will be relatively tamper or pilferproof, which may be easily and quickly opened for access to the commodity it contains, and which may be closed and reopened as many times as necessary, each closing being secure and not only preventing spillage of the contents but also preventing the entry of dirt.

Another important object is to provide a novel type of closure for a box and including means whereby tampering, unauthorized opening or pilferage of the contents may be readily detected.

Still another object is to provide a box of such construction as will permit the same to be formed from blanks cut from a single piece or sheet of material, the construction also being such that the box blanks may be shipped in the blank (flat) condition to a place of use and there set up or folded and filled with the desired commodity.

Many other objects as well as the advantages and uses of the invention will be or should become apparent and understood after reading the following description and claims, and after viewing the drawing in which:

Fig. 1 is a perspective view of a candy mint

box illustrating one preferred embodiment of the invention.

Fig. 2 is a perspective view of a fragment of the box of Fig. 1 showing the appearance thereof after being opened, and

Fig. 3 is a plan or developed view of the cut and scored box blank as it appears before being folded and sealed into box form.

The generally rectangular box of Figs. 1 and 2 is formed by folding the blank Fig. 3, which is cut from a single and continuous sheet of material, such as paper-board, and appropriately scored, either at the time of cutting or thereafter. The dotted lines 4, 5, and 6 indicate score lines which, together with edge 7, define what may be termed a bottom section or panel 8. A marginal portion 9 integral with the panel 8 along one side edge thereof may be lapped inside or outside of a side wall panel or section to be described, while integral with one end of panel 8 is an end wall or end closure panel or section 11 set off from a closure tuck flap 12 by a score line 13.

Score lines 6, 14, 15 and 16 define between them a side wall section or panel 17; score lines 16, 18 and 19 and edge 21 define a top section or panel 22; and score lines 19, 23 and 24, together with edge 25, define side wall section or panel 26. Integral with one edge of top panel 22 is an end wall or end closure panel or section 27 set off from a closure tuck flap 28 by a score line 29. At one (either) end of each of side wall sections or panels 17 and 26, but at those ends thereof which are at the same end of the box, is a closure flap 31. At the opposite end of each of panels 17 and 26 is a long closure flap 32 which has been weakened, as by perforation or partial cutting, along a transverse line 33. The edge 21 of panel 22 may be notched centrally as shown at 34.

In folding the box into shape from the blank, it is first folded along score lines 4, 6, 16 and 19 to lap the marginal portion or flap 9 inside or outside of the panel 26 to which it may be glued or otherwise secured. Next the end closure flaps 31 are folded down over the adjacent open end and toward one another and the end wall panel 27 and tuck flap 28 are bent on score lines 18 and 29 and the flap 28 is tucked into the end of the box between the inside face of panel 8 and the adjacent edges of end flaps 31. The tuck flap or tongue 28 may be secured both to the bottom panel 8 and to flaps 31 by glue or other adhesive or by other means, or the flap 28 may be secured only to the panel 8. The box is now ready to be filled or loaded from its one remaining open end.

After the box has been filled, the end closure flaps 32 are bent on score lines 14 and 23 and folded over the end of the box toward and into lapping relationship with one another and secured to one another by a spot or more of glue or other adhesive as indicated at 35. Preferably each of flaps 32 is of a length to lap the other to a substantial extent so as to provide a substantial amount of rigidity between them when they are glued or otherwise secured together. Following the securing of flaps 32, the end panel 11 and tuck flap or tongue 12 are bent on score lines 5 and 13 and the flap 12 is tucked into the box end between the inner face of top panel 22 and the adjacent edges of flaps 32. Preferably, the flap 12 is not secured to the top panel 22 nor is the end panel 11 secured to the flaps 32. The flaps 32 when secured to one another provide ample security against pilferage, and the flap 12 may be held in position merely by friction to provide ease and quickness of manipulation for opening.

When a purchaser desires to open the box he pulls out the flap 12, using the finger grip surface on the flap provided or made available by the notch 34. This operation exposes the lapped closure flaps 32, which are then torn away together at the weakened lines 33 and discarded, leaving the box contents readily accessible. If the box contents are not immediately used or exhausted, the purchaser may close the box, using the remaining stub portions 32—a of the flaps 32, the flap 12 and end wall panel 11 for the purpose.

The construction described not only provides a box which is relatively simple and economical to manufacture and use, but one which is substantially pilfer and tamper proof to the extent that unauthorized entry is instantly detectable. The destruction of the seal, that is, removal of the end portions of flaps 32, in opening the box for access to the contents, does not destroy the continued usefulness of the box insofar as protection of the remaining contents from dirt and spillage is concerned.

The box may be constructed with a frangible seal at each end instead of one end, and the scheme may be applied in other ways to boxes of various other shapes, sizes and types. Many other variations, modifications and applications of the invention may be devised within the spirit of the invention and the scope of the appended claims.

I claim:

1. In a box an end closure comprising, a flap attached to each of opposite sides of the box at said end, each of said flaps having a free end portion adapted to over-lap and to be secured to the free end portion of the other flap, each of said flaps being weakened transversely along a line spaced from the attached end of the flap, and a tuck flap attached by one end to one of another pair of substantially opposite sides of the box at said end of the latter and adapted substantially to cover the first said flaps and to have its free end tucked between edges of the first said flaps and the adjacent edge portion of the other of the last said pair of opposite sides.

2. In a box having a plurality of walls composed of fibrous sheet material and having an openable end, means for closing said end comprising, a pair of end closure flaps one attached at one end to one and the other attached at one

end to the other of a pair of substantially opposite walls, said flaps being overlapped and secured together at their free ends over said end of said box, each of said flaps being weakened along a transverse line spaced from its attached end, and an end wall forming member including a tongue flap attached to one of the other box walls at said openable end and adapted to close over said end closure flaps with said tongue entered between edges of said end closure flaps and a box side wall opposite to the side wall to which said member is attached.

3. In a box having a plurality of walls composed of fibrous sheet material and having an openable end, means for closing said end comprising, a pair of end closure flaps one attached at one end to one and the other attached at one end to the other of a pair of substantially opposite walls, said flaps being overlapped and secured together at their free ends over said end of said box, each of said flaps being weakened along a transverse line spaced from its attached end, and means attached to one of the other side walls at said box end for closing over said box end and covering portions of said flaps between said weakened lines.

4. A box of the character described comprising, top, bottom, side and end walls, all of said walls except one being secured against opening, said one wall including a releasable and replaceable closure portion attached to an adjacent wall and co-operative with a wall opposite to said adjacent wall, and a pair of flaps one of which is secured to each of the box walls which lie between said opposite walls, said flaps being secured together over the end of the box inside of said closure portion, each of said flaps having a weakened tear line thereacross and intermediate its ends.

5. A box of the character described comprising, top, bottom, side and end walls, all of said walls except one being secured against opening, said one wall including a releasable and replaceable closure portion attached to an adjacent wall and co-operative with a wall opposite to said adjacent wall, and a pair of flaps one of which is secured to each of the box walls which lie between said opposite walls, said flaps being secured together over the end of the box inside of said closure portion, one of said flaps having a weakened tear line thereacross.

6. A generally rectangular box of the character described comprising, a single piece of sheet material cut and folded to provide four side walls and a pair of end walls, said side walls and one end wall being secured against opening without substantial injury, the other end wall being adapted to be opened and closed at will, said other end wall including, an end wall closure portion connected with the adjacent end of one of a pair of oppositely disposed side walls, a tongue portion connected with said closure portion and adapted to be inserted into the box end adjacent to the other of said pair of oppositely disposed side walls, and a pair of closure flaps one of which is attached to each of the adjacent ends of the other pair of oppositely disposed side walls, said closure flaps being overlapped over the adjacent end of the box and secured together intermediate their ends and each being weakened transversely for removal of the lapped part thereof.

CHARLES S. REID.