Dec. 29, 1959 H. R. McCLEARY 2,919,020

DISPENSER CARTON

Filed June 24, 1957 2 Sheets-Sheet 1

Fig. 1

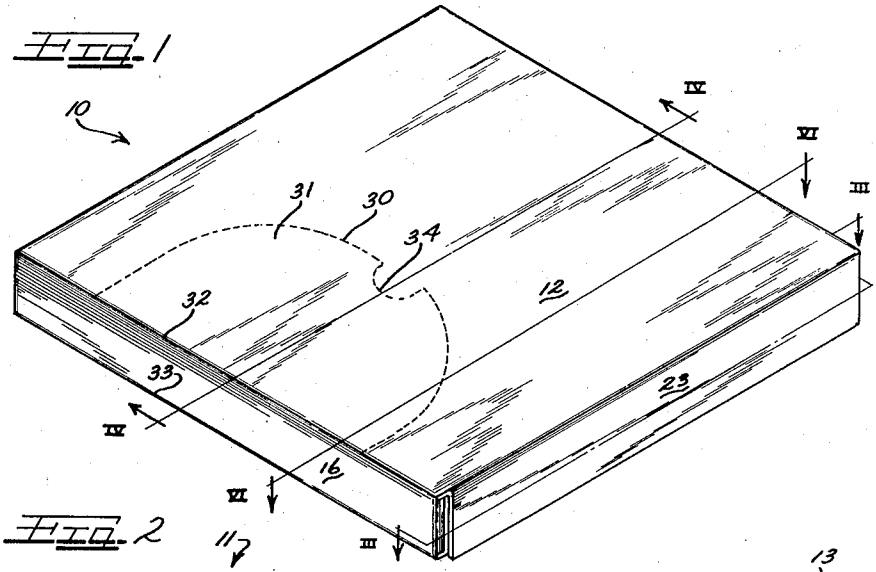


Fig. 2

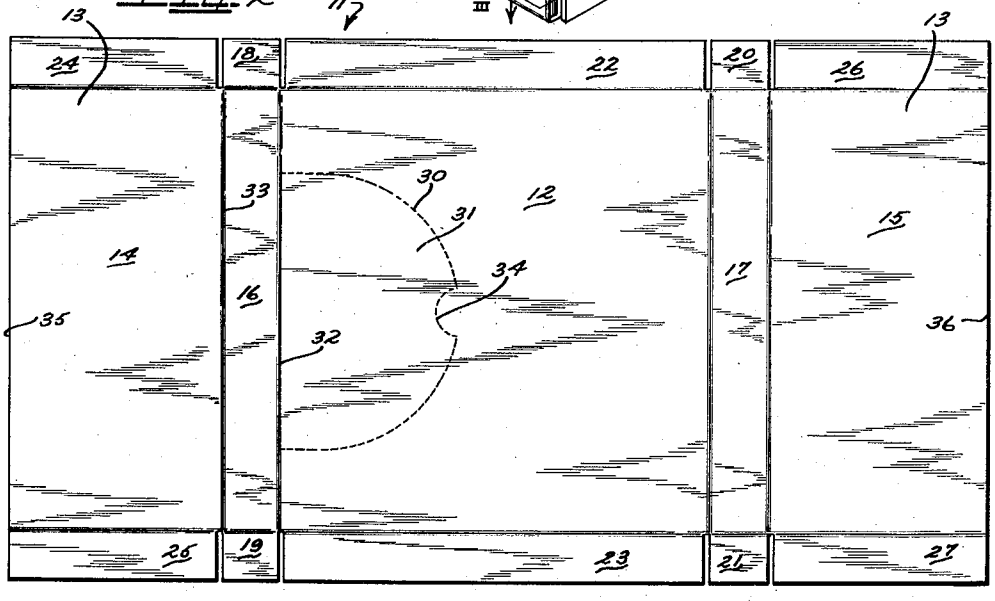
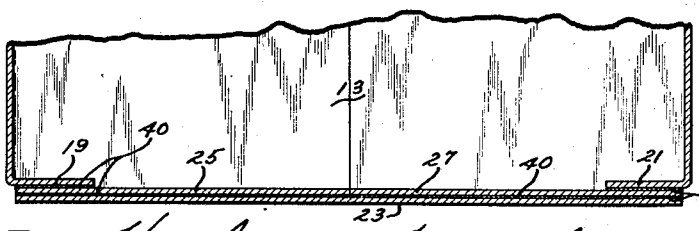


Fig. 3



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Dec. 29, 1959 H. R. McCLEARY 2,919,020

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Filed June 24, 1957 2 Sheets-Sheet 2

Fig. 4

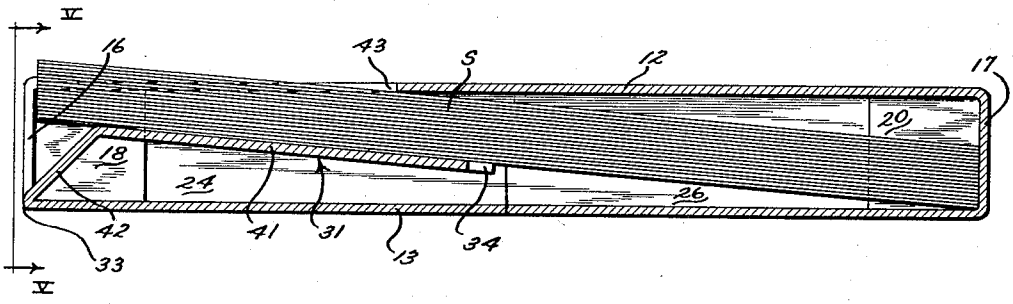


Fig. 5

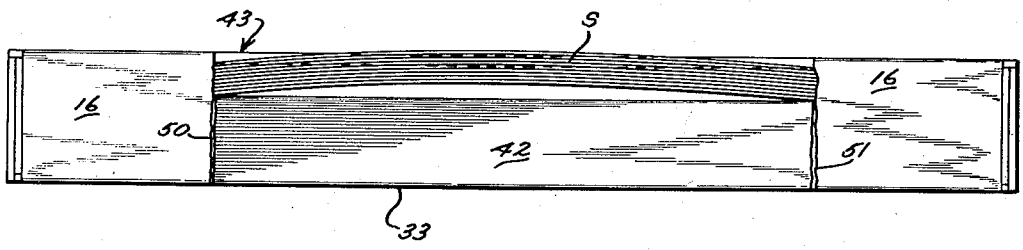
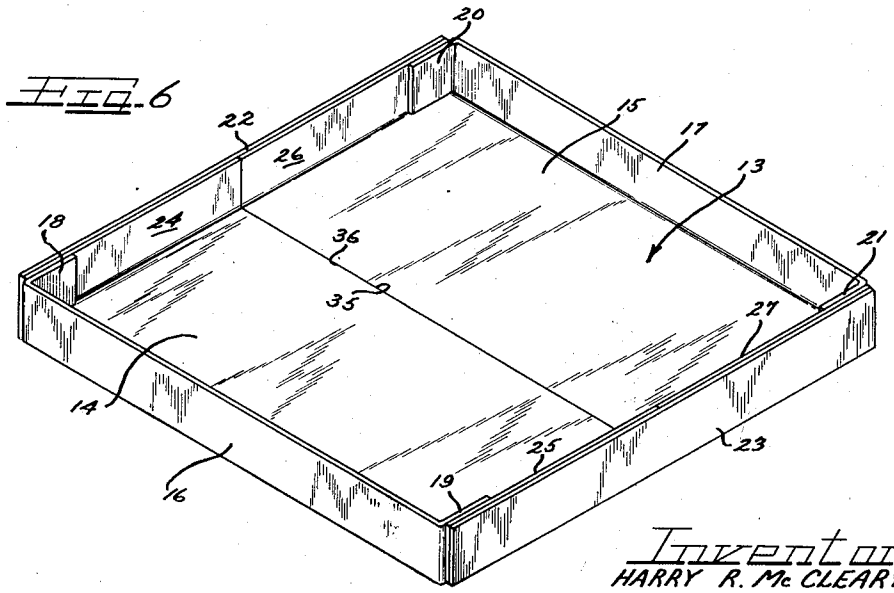


Fig. 6



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2,919,020

DISPENSER CARTON

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Application June 24, 1957, Serial No. 667,478

6 Claims. (Cl. 206—57)

This invention relates generally to dispenser cartons and boxes, and more specifically to an improved dispenser carton for sheet material, which carton is adapted for use in several ways.

Although the principles of the present invention may be included in various cartons or boxes, a particularly useful application is made in cartons of the type that permit the dispensing of flexible sheet material therefrom. In particular, some users of such boxes are desirous of withdrawing sheet material from a fully open box. Others prefer to withdraw the material from a box which is closable. Still others prefer to withdraw the sheet material from a semi-open box in either a horizontal or vertical position. When such material is withdrawn with the box resting in a horizontally disposed position, it is sometimes awkward to reach the material in the carton. If the sheet material be withdrawn from a carton wherein the sheet material is vertically disposed, there is a tendency for flexible material to buckle and to settle at the bottom, thus making the material inaccessible, or imparting an undesirable curl to its lower edge.

The present invention contemplates the utilization of a single blank to form a rigid box in which the contents may be shipped, and from which the contents may be dispensed in a number of ways. The blank preferably comprises resilient material and includes a large resilient tab, integral with one wall thereof, which may be deformed to be positioned intermediate the material and the opposite wall, whereby the sheet material is resiliently urged to a dispensing position.

Accordingly, it is an object of the present invention to provide a dispenser carton which may be used in any one of several ways.

Another object of the present invention is to provide a shipping carton which may be converted to a dispensing structure by the user.

Yet another object of the present invention is to provide a carton having an integral resilient means for urging the contents into the dispensing position.

Many other advantages, features and additional objects of the present invention will become manifest to those versed in the art by making reference to the detailed description and the accompanying sheets of drawings in which a preferred structural embodiment incorporating the principles of the present invention is shown by way of illustrative example.

On the drawings:

Figure 1 is a perspective view of a dispenser carton equipped with an integral tab provided in accordance with the principles of the present invention;

Figure 2 is a development of the unitary blank from which the carton of Figure 1 is constructed;

Figure 3 is an enlarged cross-sectional view taken along the line III—III of Figure 1, showing an end portion thereof;

Figure 4 is an enlarged cross-sectional view taken generally along the line IV—IV of Figure 1, but with the tab in an open contents-dispensing position;

Figure 5 is an end view taken generally along line V—V of Figure 4; and

Figure 6 is a perspective view similar to Figure 1, taken along the line VI—VI thereof, but with the front wall cut away, whereby the structure of Figure 1 may be used as a rigid tray.

As shown on the drawings:

The principles of the present invention are particularly useful when embodied in a dispenser carton such as illustrated in Figure 1, generally indicated by the numeral **10**. Cartons of this type are particularly useful for the shipping, storage and handling of flexible sheet material, and for that reason, the carton is normally constructed to comprise a rectangular hollow body.

Referring to Figure 2, there is shown a development of the unitary blank from which the carton of Figure 1 is constructed. Preferably, the blank comprises resilient material. I have found that corrugated cardboard is well suited for the purposes herein described, and when such material is utilized, the corrugations preferably extend parallel to the edges numbered **32** and **33**.

The blank **11** includes a front wall **12**, a back wall **13** comprising back panels **14** and **15**. The blank **11** further includes a pair of side walls **16** and **17** which integrally join with the front wall **12** and the back wall **13**. Each of the side walls **16** and **17** has a pair of side flaps **18–21** respectively, such side flaps joining integrally with the respective side walls. The front wall has a pair of end flaps **22**, **23** each of which joins integrally with the front wall. The back wall **13** likewise has a pair of end flaps comprising four parts **24–27**. Since the back wall panels **14** and **15** may be considered as comprising a single wall **13**, so also may the end flaps **24** and **26** be considered as comprising a single end flap, while the end flaps **25** and **27** may likewise be considered as comprising a single end flap.

The front wall **12** has a series of perforations **30** each of which preferably extends through the front wall and which series is disposed in a generally U-shaped configuration to define a resilient tab **31**. It will be noted that the open end of the U extends toward a pair of edges **32** and **33** of the carton, and is here shown as coinciding with the edge **32** of the front wall **12**. Thus, the tab **31** is integrally hinged at the open end of the U to an edge of the carton. If desired, the series of perforations **30** may extend to the edge **33**. For ease of separating the tab **31** from the rest of the front wall **12**, a semi-circular portion **34** may be provided with a somewhat smaller radius to serve as a pressure point for the thumb or finger. Such finger portion **34**, may be directed in either direction, and is here shown as being directed oppositely to the main pattern of perforations **30**.

The panel **14** and the flaps **24** and **25** have an edge **35**, while the panel **15** and the flaps **26** and **27** have an edge **36**. When the box is assembled, the edges **35** and **36** are brought into confronting abutting relationship with each other, to form a generally tubular structure of rectangular cross section.

It is to be understood that the various flaps may be turned or folded over in any sequence. However, the sequence presently to be described is preferable since it produces the arrangement with the least amount of obstructions and a maximum amount of bonding surface. Preferably then, the side flaps **19** and **21** are turned inwardly first and the end flaps **25** and **27** are brought into a flatwise confronting or overlapping relationship with them. Thereafter, the flap **23** is brought into an overlapping relationship with the end flaps **25** and **27**. Bonding or cementing material, such as glue, is applied at the various interfaces, i.e., between the various flaps, indicated at **40** on Figure 3. Preferably, a similar relative disposition of the flaps is utilized at the opposite end of

the carton to thereby convert the blank of Figure 2 into the structure shown in Figure 1. Of course, the last seal cannot be made until the carton has been filled with its sheet material or other goods.

The carton may now be used as a shipping means, and is ready for conversion to a means for dispensing its contents.

Where the user desires to maintain a closable structure, he may separate the tab **31** along the perforations **30**, hinging the tab **31** along the edge **32** for the removal of the goods therefrom. At any time thereafter, the tab **31** may be returned to the original position to close the carton.

When a somewhat more convenient means is desired for dispensing, the tab **31** may first be separated from the main portion of the front wall **12** after which further pulling on the tab with a force normal to the side wall **16** will cause a tearing of the side wall **16** at the edges of the tab **31** in a direction transverse to the principal length of the side wall **16**, as best shown by lines **50** and **51** in Figure 5. Thereafter, the tab **31**, being resilient and deformable, may be inserted as best shown in Figure 4 between the flexible sheets of material S and the back wall **13**. Thus, the tab **31** may include two portions, a portion **41** coming from the front wall **12** and a portion **42** coming from the side **16**. Thus, when the tab **31** is open, it leaves an opening **43** through which the various sheets of material may partially extend. It will be noted that the sheets typically extend beyond the knee or joint between the portion **42** and the portion **41** of the tab **31** to leave an overhanging portion which may be readily grasped. It is to be understood that the tab **31** is held in the position shown in Figure 4 by the material S, and therefore the tab **31** exerts a reactive force thereagainst to move the stack toward the opening **43** as sheets are withdrawn from the top thereof. The cover **12** reacts against the upper surface of the upper sheet adjacent to the rim of the U-shaped opening **43** while the tab **31** acts within the area defined by the opening **43**. Accordingly, as best shown in Figure 5, there is a slight tendency for the sheets S to bow outwardly in the center, thus further facilitating their being grasped.

In the foregoing paragraph, it has been assumed that the back wall **13** was lowermost, so that the sheets were generally horizontal. When the dispenser box or carton **10** is disposed so that the side **17** forms the bottom, thereby disposing the sheets in a generally vertical position, gravity tends to act on the sheets to cause them to fall to the bottom of the box, causing sheet buckling, wrinkling and the like. The instant structure, when placed with the side **17** downward, also serves to correct this situation. Under this condition, none of the resilience of the tab **31** is used to overcome the weight of the sheets, but such resilience is devoted entirely to the forcing of the vertical sheets against the inner surface of the front wall **12**. Thus, this structure further solves the sheet buckling problem encountered when boxes of this type are disposed with their contents vertically oriented by holding up the stack of sheets.

Because of the rigid bonding and overlapping of the various end flaps, it is possible to cut away all of the front **12**, or all of the back **13**, as illustrated in Figure 6. If the top **12** be removed, it is to be understood that the tab **31** may also be removed as shown, or may be left attached to underlie the sheets as shown in Figure 4. Because of this corner or flap structure, the carton **10** may be converted into a tray which needs no regluing, reriveting or refastening of any type, and which remains sufficiently rigid to accommodate its contents and the handling of the filled tray.

Thus, there has been provided a novel dispensing carton which is made from a unitary blank and which has a novel resilient tab which may be used not only for making the contents accessible, but for resiliently displacing the contents to a position from which they may be more readily removed. Furthermore, the carton may be used as either a shipping carton initially and may be readily converted to a rigid tray or other means from which the goods may be dispensed.

Although various minor modifications might be suggested by those versed in the art, it should be understood that I wish to embody within the scope of the patent warranted hereon all such embodiments as reasonably and properly come within the scope of my contribution to the art.

I claim as my invention:

1. A carton for containing and dispensing flexible sheets of material, said carton including a front wall, a back wall, and a plurality of side walls integrally joining and spacing the front and back walls, a resilient biplanar tab, said tab comprising a part of said front and part of one of said side walls and integrally hinged to an edge of said back wall, said tab being deformable and positionable entirely intermediate the sheets and said back wall for urging the sheet material toward said front wall.

2. A carton for dispensing flexible sheet material, said carton comprising a resilient tearable blank constructed and arranged in the form of a rectangular hollow body having generally parallel front and back walls spaced by a plurality of side walls for receiving the sheet material therebetween; a series of perforations extending through the front wall and disposed in a generally U-shaped configuration to define a prospective tab, the open end of the U extending toward and terminating at an edge of one of said side walls, said tab as a whole having a length parallel to and substantially shorter than the length of said edge but greater than one-half the length of said edge.

3. A carton for dispensing flexible sheet material, said carton comprising a resilient tearable blank constructed and arranged in the form of a rectangular hollow body having generally parallel front and back walls spaced by a plurality of side walls for receiving the sheet material therebetween; a series of perforations extending through the front wall and disposed in a generally U-shaped configuration to define a prospective tab, the open end of the U extending toward and terminating at an edge of one of said side walls, said tab as a whole having a length parallel to and substantially shorter than the length of said edge but greater than one-half the length of said edge, said one side wall being adapted to be torn transversely at the ends of the U for converting said tab into a means for continuously biasing the material against said front wall.

4. In combination: a carton including a front wall, a back wall, and a plurality of side walls integrally joining and spacing the front and back walls; a stack of flexible sheets contained in said carton between and generally parallel to said front and back walls; a resilient biplanar tab comprising a part of said front wall and part of one of said side walls and integrally hinged to said back wall, said tab being positionable entirely intermediate said stack and said back wall and operative to urge said stack toward the front wall.

5. In combination: a carton comprising a resilient tearable blank constructed and arranged in the form of a rectangular hollow body having generally parallel front and back walls and a plurality of side walls spacing said front and back walls; a stack of flexible sheets disposed flatwisely intermediate said front and back walls; and means for continuously biasing said stack against said front wall, said means comprising a tab defined by a series of perforations extending through said front wall and disposed in a generally U-shaped configuration, the open end of the U-shape extending toward and terminating at an edge of one of said side walls, said tab as a whole having a length parallel to and substantially shorter than the length of said edge but greater than one-half the length of said edge, said one side wall being adapted to be torn transversely at the ends of said U-shape.

6. In combination: a carton comprising a blank constructed and arranged in the form of a rectangular hollow body having generally parallel front and back walls and two pairs of opposed side walls spacing said front and back walls; a stack of flexible sheet material disposed intermediate said walls; a resilient tab comprising two portions, one of said portions originally comprising only a part of said front wall and the other of said portions comprising only a part of one of said side walls, said other tab portion being integrally hinged to said back wall; said front wall having an opening substantially identical to said one tab portion in configuration, and sized to permit removal of said sheet material therethrough; said tab portions being resiliently hinged together and having a free position where the planes of said portions intersect each other at an angle; said tab being positionable intermediate and in engagement with said stack and said back wall with said

tab portions deflected thereby to a greater included angle, whereby said tab reacts to urge said sheet material toward said front wall adjacent to said opening.

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