May 16, 1961 E. D. GILLAM 2,984,397

DISPENSING CONTAINERS FOR TABLETS AND THE LIKE

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Fig. 5.

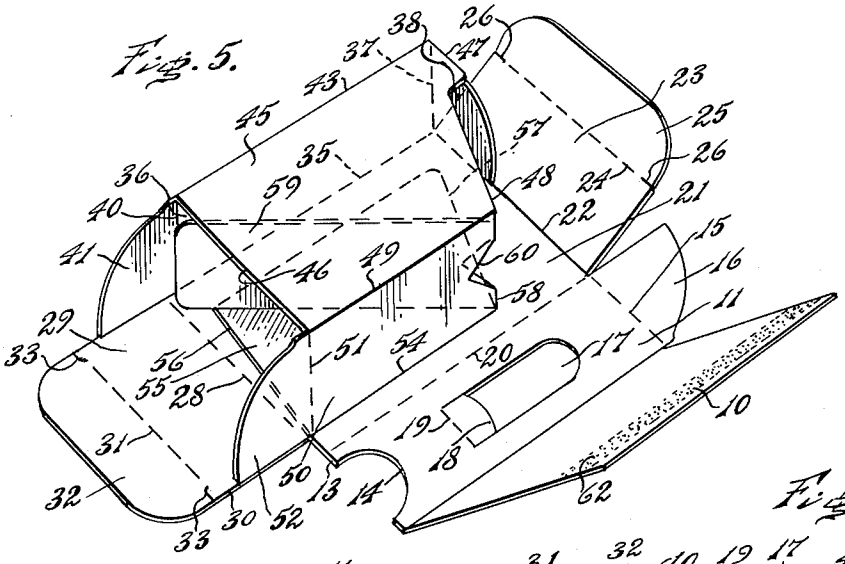


Fig. 2.

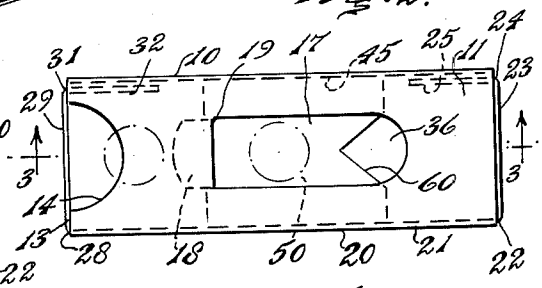


Fig. 1.

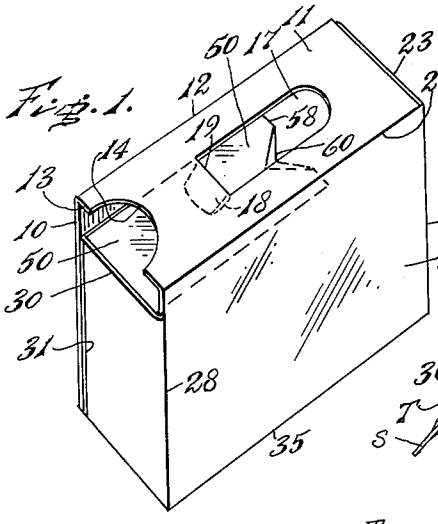


Fig. 3.

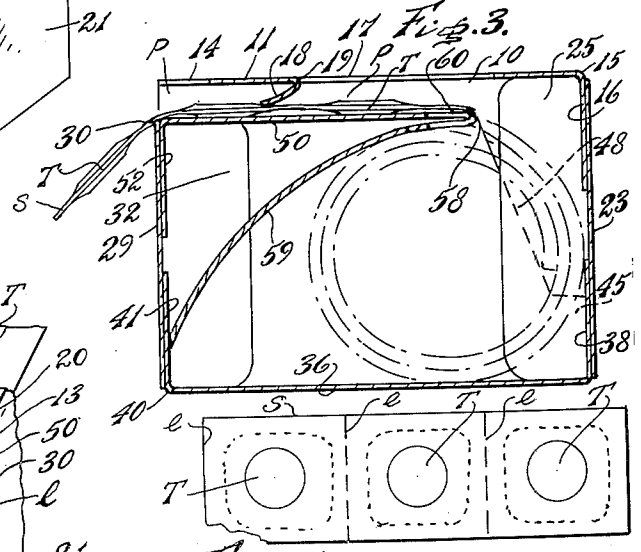


Fig. 4.

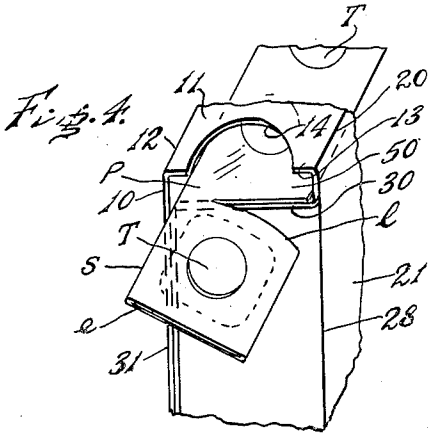


Fig. 6.

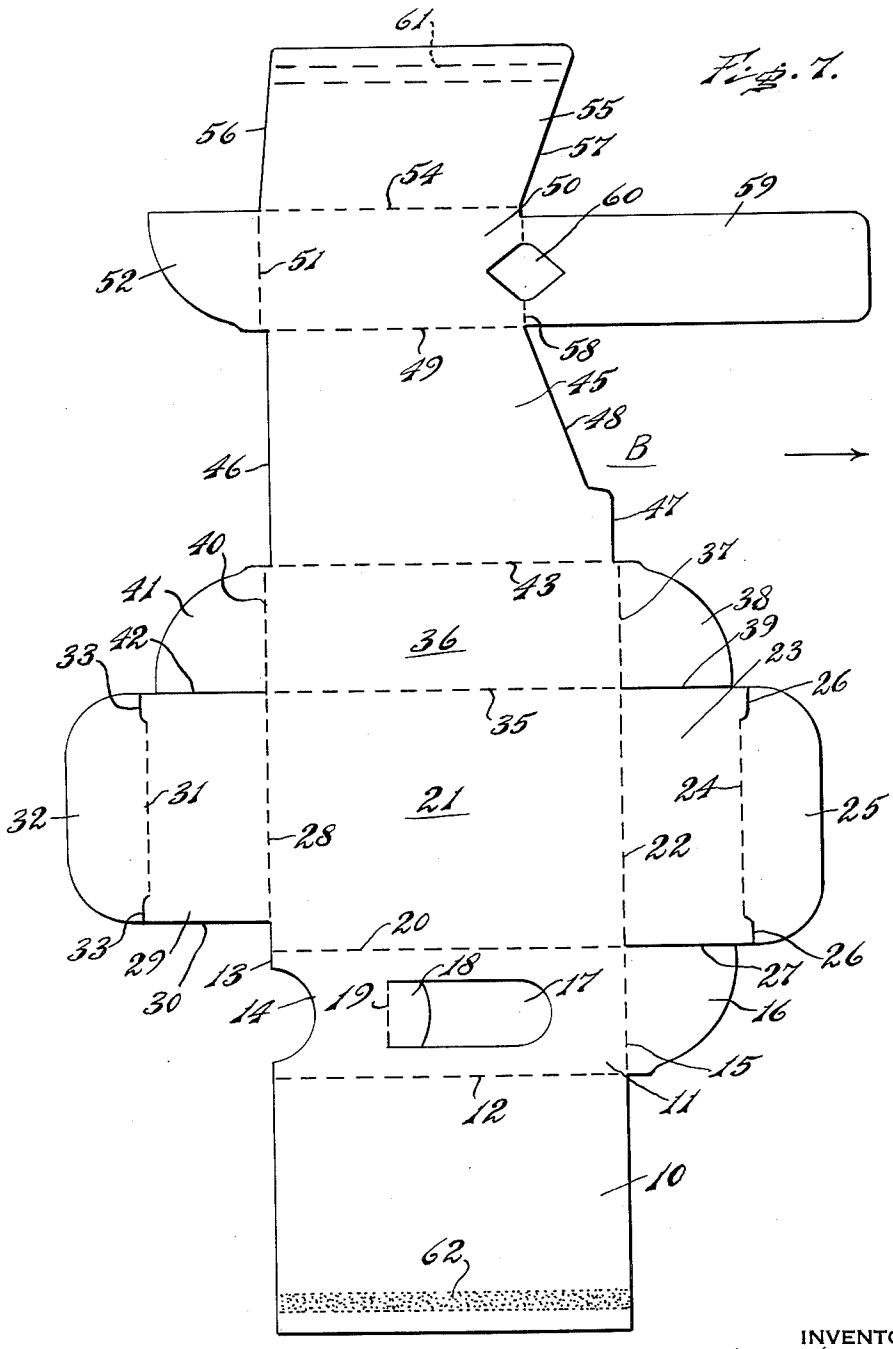
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Fig. 7.




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# DISPENSING CONTAINERS FOR TABLETS AND THE LIKE

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5 Claims. (Cl. 225—49)

This invention relates to dispensing containers for tablets and the like.

It has heretofore been proposed to seal a plurality of tablets in spaced relation in an elongated packing of transparent sheet material but no wholly satisfactory container has heretofore been available for dispensing such sealed tablets.

It is the principal object of the present invention to provide an improved dispensing container for separated tablets and the like mounted in strip form.

It is a further object of the present invention to provide a dispensing container for tablets and the like sealed in strip material having provisions for aiding in tearing or severing the strip material.

It is a further object of the present invention to provide a dispensing container of the character aforesaid which is complete in and of itself and made of a single piece of sheet material blanked, creased and assembled, the sheet material requiring finishing and/or printing only on one face thereof.

It is a further object of the present invention to provide a dispensing container for tablets sealed in spaced relation in strip material which can be assembled from the blank and glued on machines commonly available so that the container is expeditiously and inexpensively produced.

It is a further object of the present invention to provide a dispensing container which can be made as a tuck end box from a single integral blank and which can be glued, retained in a collapsed condition for shipping before filling, set up manually or by machine, and filled when desired.

It is a further object of the present invention to provide a dispensing container for tablets sealed in spaced relation in strip material in which selective advancing movements of the strip material from the interior to the exterior are controlled and facilitated.

It is a further object of the present invention to provide a dispensing container for tablets sealed in spaced relation in strip material in which retracting movement of the strip material is prevented in a simple but effective manner.

It is a further object of the present invention to provide a dispensing container for tablets sealed in spaced relation in strip material in which a side or end delivery opening is provided and which has a window on the top of the container so that the continuity of the strip and the nature and location of tablets in the strip can be readily seen and the window is available for manually advancing the strip material as desired.

It is a further object of the present invention to provide a dispensing container for tablets sealed in spaced relation in strip material having a simple but effective internal construction with an interior positioning strip which is moved to its proper position when the container is set up for filling.

Other objects and advantageous features of the invention will be apparent from the description and claims.



The nature and characteristic features of the invention will be more readily understood from the following description, taken in connection with the accompanying drawings forming part hereof, in which:

Figure 1 is a view in perspective of a container in accordance with the present invention;

Fig. 2 is a top plan view of the container shown in Fig. 1;

Fig. 3 is a vertical central sectional view taken approximately on the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary view showing the severing of one of the tablets from the strip assembly;

Fig. 5 is a perspective view of the container on one side and with parts separated to show the internal construction;

Fig. 6 is a fragmentary plan view of a portion of a strip assembly of tablets for which the container is particularly suited; and

Fig. 7 is an underneath plan view of the blank employed for making the container shown in Figs. 1 to 5, inclusive.

It should, of course, be understood that the description and drawings herein are illustrative merely, and that various modifications and changes can be made in the structure disclosed without departing from the spirit of the invention.

Like numerals refer to like parts throughout the several views.

Referring to the drawings and more particularly to Fig. 6, for purposes of explanation a strip assembly S is shown which includes a plurality of tablets T sealed in spaced relation between two parallel strips of synthetic plastic sheet material such as cellophane, Pliofilm, polyethylene or the like, and with weakened lines 1 between successive tablets T.

Referring now more particularly to Fig. 7, the sheet or blank B from which the dispensing container is assembled is therein illustrated. The blank B is preferably formed from a single piece of sheet material such as paperboard, cardboard or similar tough yet flexible material, and is preferably finished on one face thereof for printing or other decoration as desired. One finished face will suffice with the construction to be described.

The blank B is provided with predetermined creases, slits, cutouts and shapes thereon to provide the desired constituent portions as hereinafter explained.

The constituent portions of the blank B preferably include a rectangular side wall panel 10 having a rectangular top wall panel 11 connected thereto along a longitudinal crease line 12. The top wall panel 11 has an end margin 13 with an arcuate cutout 14 of a size to permit grasping and easy outward movement of the strip assembly S with tablets T carried thereby.

The top wall panel 11 has at the end opposite the margin 13, and connected thereto along a transverse crease line 15, an end wall flap 16.

The top wall panel 11 intermediate its ends is provided with an elongated window opening 17, of a width of the order of the diameter of one of the tablets T, with a retainer or ratchet flap 18 joined thereto by a crease line 19 along the edge thereof contiguous to the margin 13.

The top wall panel 11 has connected thereto along a crease line 20 parallel to the crease line 12 a side wall panel 21 of rectangular shape and approximately the same in size and shape as the panel 10. The side wall panel 21 preferably has connected thereto along a crease line 22 a rectangular end wall panel 23.

The crease line 22 can be formed as a continuation of the crease line 15. The end wall panel 23 preferably has joined thereto along a crease line 24 a closing tab 25, locking slits 26 being provided at the ends of the crease line 24, if desired. A cut line 27, aligned with the crease

line 20, can be provided between the end wall flap 16 and the end wall panel 23.

The side wall panel 21 also has connected thereto along a crease line 28, parallel to the crease line 22, and aligned in the blank with the margin 13, a rectangular end wall panel 29. The end wall panel 29 has a marginal severing edge 30 parallel to the crease line 20 in the blank but spaced a predetermined distance therefrom to provide with the top wall panel 11 and the cutout 14 an exit or delivery opening (see Fig. 1).

The end wall panel 29 preferably has connected thereto along a crease line 31 parallel to the crease line 28 a closing tab 32, locking slits 33 being provided if desired at the ends of the crease line 31.

The side wall panel 21 also preferably has connected thereto along a crease line 35 parallel to the crease line 20, a rectangular bottom wall panel 36. The bottom wall panel 36 preferably has connected thereto along a crease line 37 formed as a continuation of the crease line 22, an end closure flap 38. The closure flap 38 is separated from the panel 23 by a cut line 39.

The bottom wall panel 36 also has connected thereto along a crease line 40, formed as continuation of the crease line 28, an end closure flap 41. The end closure flap 41 is preferably separated from the panel 29 by a cut line 42 formed as a continuation of the crease line 35. The bottom wall panel 36 preferably has connected thereto along a crease line 43 parallel to the crease line 35 an interior positioning and supporting panel 45.

The panel 45 preferably has a marginal edge 46 parallel to but inset in the blank B with respect to the crease line 40, has a marginal edge portion 47 inset with respect to the crease line 37 for providing additional strength at a location for locking at one of the interior corners, and has an inclined marginal portion 48.

The terminal ends of the margins 46 and 48 have a crease line 49 extending therebetween parallel to the crease line 43. The crease line 49 serves for the connection of an interior supporting panel 50. The distance between the crease lines 43 and 49 determines the positioning of the interior panel 50 with respect to the top panel 11. The severing margin 30 is located so as to be in the same plane in the set up condition of the container.

The panel 50 has connected thereto along a crease line 51 aligned with the crease line 40 a supporting and end closure flap 52. The panel 50 has connected thereto along a crease line 54 parallel to the crease line 49 an interior retaining and positioning gluing panel 55 having a marginal edge 56 extending at a slight angle with respect to an extension of a line coincident with the crease line 51 and the margin 46. The panel 55 also has an opposite inclined margin 57.

The panel 50 has connected thereto along a crease line 58 parallel to the crease line 51, an interior resilient positioning flap 59, a central cutout 60 of substantially diamond shape being interposed at the midportion of the crease line 58 for facilitating movement past the crease line 58 of strips S as hereinafter explained.

For purposes of illustration the glue lines, as subsequently applied are shown on the blank B, one glue line at 61 being applied from below on the panel 55 and another glue line 62 being applied from above on the wall panel 10.

The blank B is folded in any desired manner consistent with the operation of the gluing machine, the arrow on Fig. 7 showing a preferred direction of advance of the blank B. The positioning flap 59 may preliminarily be folded about the crease line 58 so as to be interiorly disposed.

The inner positioning panel 55 is secured by gluing, such as along the glue line 61, to the inner face of the outer side wall panel 21, and the outer side wall panel 10 and the inner supporting panel 45 are glued together, such as along the glue line 62, with the free edge of the panel 10 disposed along the crease line 43. The gluing operations can be performed on available production gluing equipment and do not require any special machines.

The container, as thus preliminarily assembled can be retained in flat condition for shipping.

When the container in flat condition is to be set up for use, pressure is applied at the crease lines 20 and 43 to bring the container to a position at which the resilient positioning flap 59 tends to swing to a diagonal position with its free edge contiguous to the crease line 40, and the end flap 41 is bent around its crease line 40, into the same plane as the crease lines 28 and 40. The flap 52 is bent along its crease line 51 into the same plane as the crease lines 28 and 40. The closing tab 32 is bent about the crease line 31 and inserted interiorly of the supporting panel 45 and locked by the engagement of the flaps 41 and 52 in the slits 33.

This positions the severing edge 30 in predetermined relation to the margin 13 and cutout 14 and to the interior supporting panel 50 and the crease line 51 for purposes to be explained.

The ratchet flap 18 is moved and snapped to a position facing away from the window opening 17 and towards the cutout 14.

It will be noted that a passageway P is provided between the top wall panel 11 and the interior supporting panel 50 with an opening in the end wall contiguous to the cutout 14. A strip assembly S in rolled form can then be inserted within the interior of the container and into engagement with and pressing against the positioning flap 59. The free end of the roll of the strip assembly S as an outer turn of a spiral is directed around the edge at the crease line 58 and inserted through the passageway so as to have its free end accessible at the cutout 14.

The end flaps 16 and 38 are then bent inwardly along their crease lines 15 and 37. The end wall panel 23 is bent along the crease line 22 and the closing tab 25 is bent along the crease line 24 and inserted in holding engagement with the tabs 16 and 38 interiorly of the supporting panel 45. The contiguous edges of the flaps 16 and 38 will engage and lock at the slits 26 and retain this end of the container in closed condition.

When it is desired to withdraw or feed out a tablet, the strip assembly S may be impelled outwardly by pressure applied manually at the window opening 17 or the end of the strip assembly S may be grasped at the opening provided at the cutout 14 and advanced to bring the weakened line 1 to a position at the cutting edge 30 and crease line 51. The cutting edge 30, reinforced by the interior panel 50, provides an edge by which a portion of the strip assembly S may be severed. The panel 50 is supported and held against movement at the crease line 51 and inwardly therefrom by the positioning panels 45 and 55. The strip assembly S may also be restrained against movement for severing by pressure applied manually through the window opening 17.

Retraction of the strip assembly S is prevented by engagement of the edge of the ratchet flap 18 with the upper face of the strip assembly S, the tablets T providing abutments thereon.

It will be noted that the positioning flap 59 has a resilient action tending to urge the roll toward the end panel 23. This reduces the acuteness of the bend in the roll at the location contiguous to the crease line 58 where the strip assembly S enters the passageway P between the top wall panel 11 and the interior supporting panel 50.

The cutout at 60 permits of an easy step by step passage of tablets thereover, providing a proper degree of resistance to advancing movement but not unduly gripping or holding the strip. No edges are provided at the diamond shaped cutout 60 on which the strip or tablet can engage and hold.

During the advance of the tablets in the strip assembly S and until exhaustion of the strip assembly occurs

the window opening 17 permits of visual observation as to the continued supply.

The visibility at the window opening and display of a plurality of tablets T or weakened lines 1 suggests to the user the length of strip necessary to be withdrawn for severing at the severing edge 30.

I claim:

1. A dispensing container made from a single sheet of material for articles in a strip assembly, said container having a plurality of enclosing walls including a top wall, opposite side walls, and opposite end walls, an interior panel in spaced parallel relation to the top wall to provide a passageway within and parallel to said top wall for the free end of the strip assembly, said interior panel having supporting portions connected thereto along opposite side margins and secured to the interiors of said side walls, one of the end walls having an opening at which said passageway terminates and having a marginal severing edge at said opening, and interior portions of the enclosing walls providing a receptacle for a roll of strip material having transversely extending weakened portions for severing at said marginal severing edge.

2. A dispensing container made from a single sheet of material for articles in a strip assembly, said container having a plurality of enclosing walls including a top wall, opposite side walls, and opposite end walls, an interior panel in spaced parallel relation to the top wall to provide a passageway within and parallel to the top wall for the free end of the strip assembly, said interior panel having supporting portions connected thereto along opposite side margins and secured to the interiors of said side walls, one of the end walls having an opening at which said passageway terminates, said interior panel having a resilient positioning flap extending therefrom and providing with interior portions of the boundary walls a receptacle for a roll of strip assembly material, said flap having a free end permitting self-positioning of said flap and said flap urging said roll toward an end wall opposite from that at which said passage terminates.

3. A dispensing container as defined in claim 2 in which said positioning flap is disposed at an acute angle to said interior panel and has a central clearance cut out at the intersection of said panel and said flap for facilitating the passage of the strip.

4. A dispensing container for articles in a strip assembly made from a single sheet of material and having a plurality of enclosing walls including a top wall, opposite side walls, and opposite end walls, an interior wall in spaced parallel relation to the top wall to provide a passageway within and parallel to the top wall, said interior wall having supporting portions connected thereto along opposite side margins and secured to the interiors of said side walls, one of the end walls having an opening at which said passageway terminates, one of said parallel walls having a restraining tongue extending therefrom and in intersecting relation to said passageway, interior portions of said enclosing walls providing a receptacle for a roll of strip assembly material, said restraining tongue limiting movement of the strip in one direction.



5. A dispensing container for articles in a strip assembly made from a single sheet of material and having a plurality of enclosing walls including a top wall, opposite side walls, and opposite end walls, an interior wall in spaced parallel relation to the top wall to provide a passageway within and parallel to said top wall for the free end of said strip assembly, said interior wall having supporting portions connected thereto along opposite side margins and secured to the interiors of said side walls, one of the end walls having an opening at which said passageway terminates and having a marginal severing edge at said opening, said interior wall having a resilient positioning flap extending therefrom and providing with interior portions of the boundary walls a receptacle for a roll of strip material, said flap urging said roll toward an end wall opposite from that at which said passage terminates, and one of said parallel walls having a restraining tongue extending therefrom and in intersecting relation to said passageway, said restraining tongue limiting movement of the strip in one direction.

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