July 19, 1966 E. CAPUCIO 3,261,501

DISPENSING CONTAINER HAVING CLOSURE FLAP

Filed June 12, 1964 2 Sheets-Sheet 1

FIG. 1

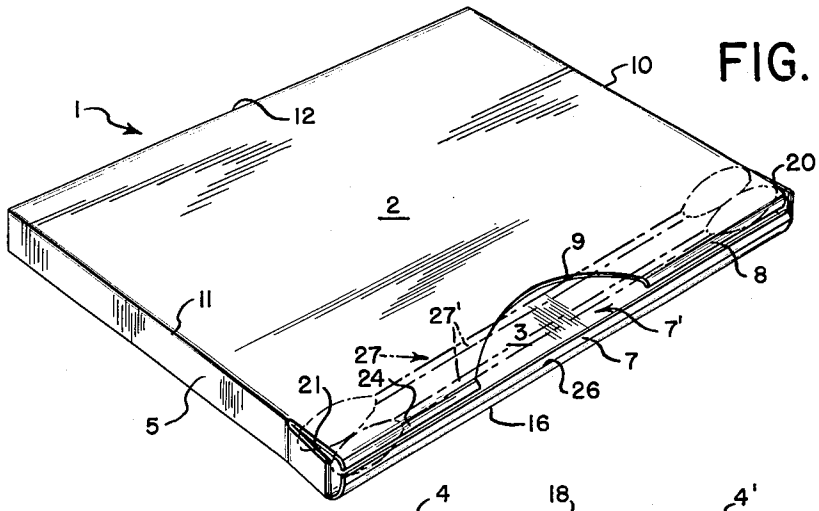


FIG. 2

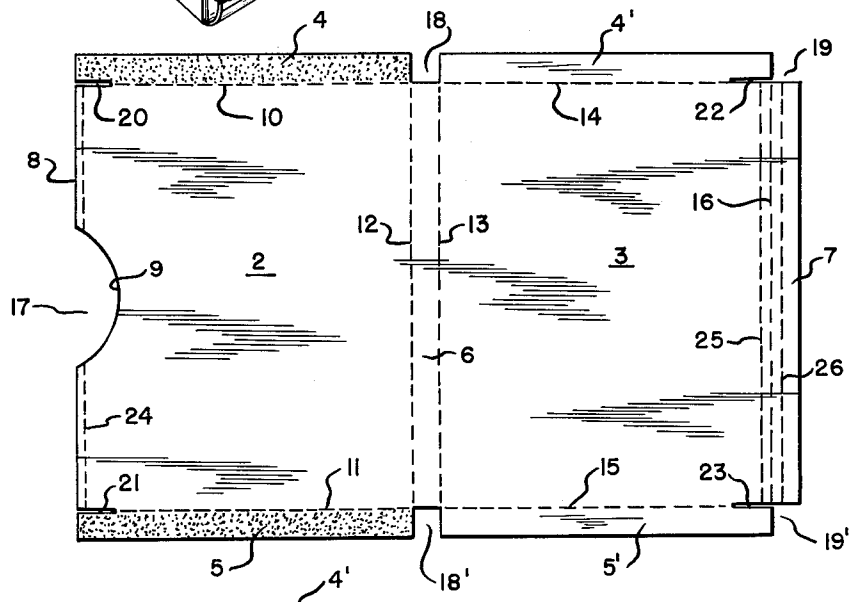
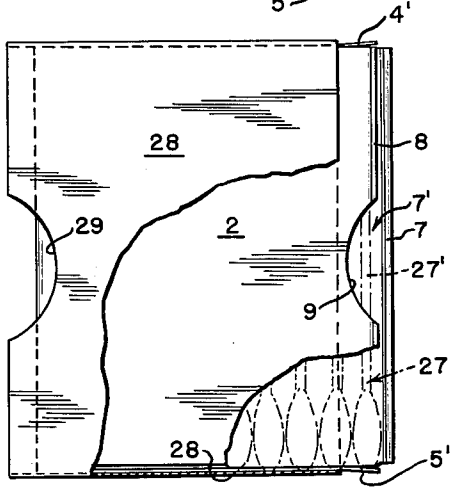


FIG. 3



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Filed June 12, 1964 2 Sheets-Sheet 2

FIG. 4

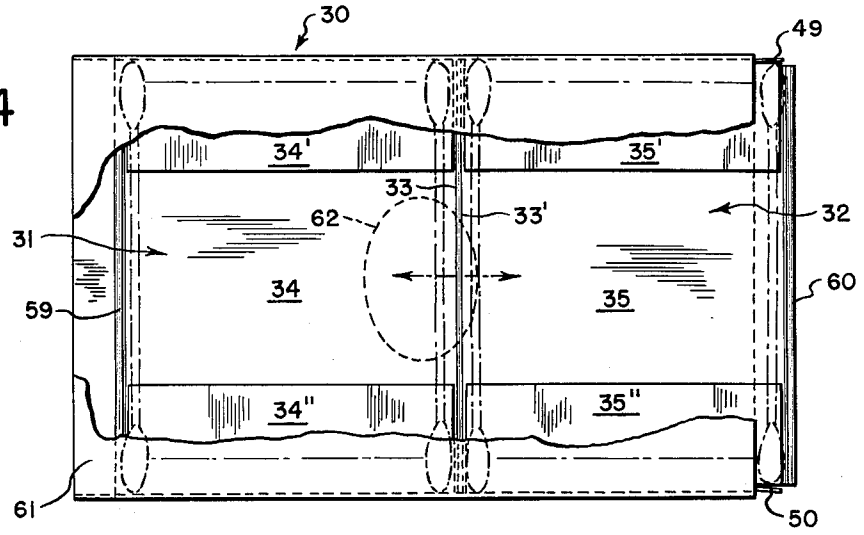
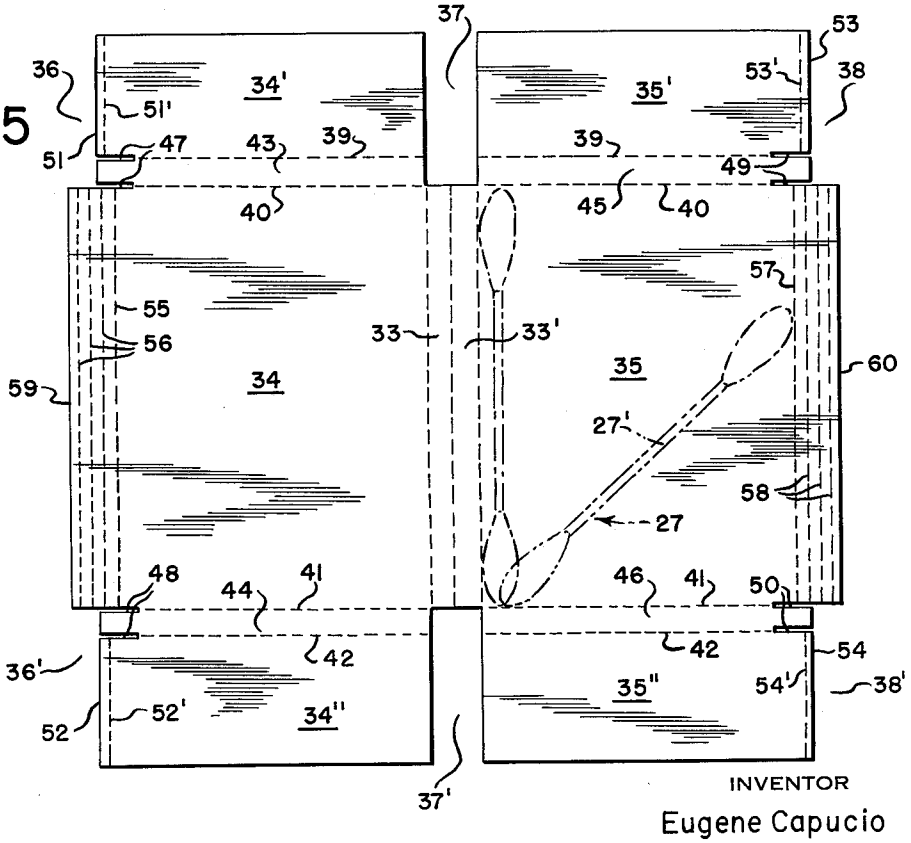


FIG. 5



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3,261,501 DISPENSING CONTAINER HAVING A CLOSURE FLAP

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12 Claims. (Cl. 221—305)

The present invention relates to dispensers and more particularly to a dispenser in which a plurality of elongated rod shaped articles may be held and released for use one at a time, as desired.

In merchandizing certain rod shaped articles such as, for example, cigarettes and cotton-tipped swabs, it is often desirable to provide a dispenser for holding a group of these articles in oriented fashion whereby a single article may be dispensed from a predetermined dispensing position in the dispenser and another article of the group automatically brought into the dispensing position just vacated. One dispenser of this type is described in my copending application, Serial No. 203,337, filed June 18, 1962, and entitled "Cotton Swab Dispenser," now abandoned. There, a suitable drawer holding the articles is provided with inwardly extending side panels connected at the upper edges of the sidewalls of the drawer. These panels are slit at one end of the drawer so as to permit upward flexing thereof. Removal of an article from this type of dispenser is accomplished by grasping the article intermediate its ends and lifting it upwardly. This movement flexes the side panels in a like direction to thereby permit the removal of the article.

According to the teachings of the present invention, a dispenser for holding elongated articles is constructed in such a manner whereby removal of a single article is accomplished by rolling the article out a normally closed end of the dispenser. With the present construction, this rolling of the article is easily done with one finger of the user's hand engaging the individual article being removed and with the other hand being used for merely holding the dispenser. After the individual article has been removed, the dispensing end of the dispenser will automatically close and the next article to be dispensed moved toward dispensing position by simply tipping the dispenser.

Generally, the dispenser of the present invention is constructed from a single blank or piece of material such as plastic coated paper or cardboard, or other material having some degree of stiffness. The blank is cut and folded to produce a container effectively closed on all sides except for one end thereof which is to be the dispensing end. Here, the juncture of the side walls with the top and bottom walls is slit back in a direction away from the dispensing end while the bottom wall is creased along a hinge line positioned inwardly and extending in a direction parallel to the dispensing end of the container to define a closure flap. This flap is provided with a plurality of crease lines extending parallel to the hinge line and is bent along these lines to produce a closure flap that normally extends upwardly in a curved fashion to close the dispensing end of the dispenser.

To provide access to the particular article to be dispensed, the top wall of the dispenser is provided with a cut-out portion extending to the dispensing end of the dispenser. A dispenser constructed in this manner may have all the wall portions, with the exception of those forming the dispensing end, securely held together to form the dispenser; or alternatively, the walls may be merely bent to produce the drawer type dispenser and this structure may then be slid into a tubular protective cover for holding the walls in proper closed position.

A more detailed description of the present invention is contained in the following specification, reference being made to the accompanying drawings of which:

FIG. 1 is a perspective view of a dispenser constructed in accordance with the teachings of the present invention;

FIG. 2 is a plan view of the blank from which the dispenser of FIG. 1 is constructed;

FIG. 3 is a plan view partially broken away of a modified form of the present invention;

FIG. 4 is a plan view partially broken away of still another modified form of the present invention; and

FIG. 5 is a plan view of the blank from which the drawer portion of the dispenser shown in FIG. 4 is constructed.

As shown in FIGS. 1 and 2, the dispenser of the present invention comprises a container like construction **1** having a top wall **2**, a bottom wall **3**, double side walls **4**, **4'** and **5**, **5'**, a back end wall **6**, and a dispensing end closure flap **7** covering a dispensing opening **7'** which extends across the dispenser from the side walls **4**, **4'** to the side walls **5**, **5'**.

To form the container construction of FIG. 1, the blank shown in FIG. 2 is used. As indicated above, the blank is formed from relatively stiff material such as plastic coated paper or cardboard whereby certain parts of the assembled dispenser will remain in a normally closed position but will temporarily flex to an open position when it is desired to remove an article from the dispenser. As shown in FIG. 2, the top wall **2** is defined by the dispensing edge **8**, which is provided centrally thereof with a cut-out **9**, and by the edges **10**, **11** and **12** which in turn define fold lines separating the top wall from the side walls **4** and **5** and the back end wall **6**, respectively. In a similar manner, the bottom wall **3** is defined by fold lines **13**, **14**, **15** and **16** separating the bottom wall from the back end wall **6**, the side walls **4'** and **5'** and the closure flap **7**, respectively. The closure flap **7** is formed as an integral extension of the bottom wall **3** extending outwardly of the fold line **16**.

In preparing the blank of FIG. 2 for folding into the shape shown in FIG. 1, the areas marked **17**, **18**, **18'**, **19**, and **19'** are cut away and the fold lines separating the top wall **2** from the side walls **4** and **5** are slit at **20**, **21** respectively while the fold lines separating the bottom wall **3** from the side walls **4'** and **5'** are slit at **22**, **23**, respectively. In addition to this, a crease line **24** is formed adjacent to the dispensing edge **8** and the top wall **2** is folded about this line so as to cause this edge to overhang the dispensing opening **7'** when the top wall is folded over the bottom wall as shown in FIG. 1. Also, for purposes of giving a curved contour to the closure flap **7** which extends beyond the side walls **4**, **4'** and **5**, **5'** of the formed container, a hinge or crease line **25** is formed in the bottom wall parallel to the fold line **16** and at a position spaced inwardly from the overlying dispensing opening **7'** and the dispensing edge **8**. Finally, to complete the curved shape of the closure flap **7**, one or more additional crease lines **26** are formed therein outwardly of the hinge line **25**. As shown in FIGS. 1 and 2, the fold line **16** will also function in the same way as the crease lines **26** to give the curved effect to the closure flap **7**. With the blank folded into the position shown in FIG. 1, the closure flap **7**, due to its upwardly curved contour will normally be oriented to effectively close the dispensing opening.

In the construction of FIGS. 1 and 2, the slits **22** and **23** extend inwardly of the closure flap to a position beyond the hinge line **25** while the slits **20**, **21** of the top wall extend inwardly of the dispensing opening **7'** and terminate at a point substantially above the point of termination of the slits **22**, **23** when the blank is folded into the shape shown in FIG. 1.

After the cut-out portions **17**, **18**, **18'**, **19** and **19'** have been formed and the blank folded into the position shown

in FIG. 1, the side walls 4 and 5 are secured by a suitable adhesive to the side walls 4' and 5', respectively, to hold the dispenser in its assembled condition. Before the final assembly of the dispenser, however, elongated articles such as cotton swabs 27 are placed on the bottom wall 3 in parallel alignment with the end wall 6 and with the first of the articles to be dispensed lying in appropriate dispensing position adjacent the dispensing opening 7'.

To remove this article, it is merely necessary to engage its center portion 27' with the thumb through the cut-out 9 and roll it through the dispensing opening 7'. Passage through this normally closed opening is permitted due to the specific construction of the closure flap 7 and the positioning of the slits 20–23. As the article is rolled outwardly of the dispenser, the thumb or other finger of the user that is used for this purpose, may also be used to temporarily pivot the closure flap 7 downwardly about the hinge line 25 to thereby permit the article to move easily under the overhanging edge 8 of the top wall and out of the dispenser. In addition, the top 2 wall will flex upwardly if necessary due to the slits 20, 21 but will immediately return to its normal position after the article being dispensed has moved therebeyond and will thereby assist in holding the remaining articles in the dispenser against accidental dispensing. Also, after a particular article has been rolled off the closure flap 7, this flap will itself return to its normally closed position.

With this construction, it is not only possible to dispense articles one at a time but such dispensing may be effected without contacting the ends of the articles which is important where, for example, the articles are sterile cotton swabs.

Finally, for maintaining the dispenser of FIG. 1 in a sterile closed condition until purchased by the ultimate consumer, it may be wrapped in a cellophane or similar wrapper and provided with a suitable tear strip adjacent the dispensing end.

FIG. 3 shows a modified construction of the present invention in which the side walls 4 and 5 of the blank shown in FIG. 2 are removed and the dispenser is encompassed in a tubular cover 28 for holding the blank in its assembled condition. As shown in FIG. 3, the cover 28 is provided with a cut-out 29 at its back end for facilitating pushing of the assembled blank in a drawer-like manner out the opposite end of the cover to expose the dispensing opening 7'. The construction of the embodiment of the invention shown in FIG. 3 is identical to that shown in FIG. 1 except for the fact that there are no side walls 4 and 5 and the blank is not held in assembled condition by adhesive applied to such side walls. Instead, the side walls 4', 5' are merely folded upwardly toward the top wall and the encompassing tubular cover 28 is employed for holding the blank in this position.

FIGS. 4 and 5 illustrate still another embodiment of the present invention in which the dispenser generally designated at 30 is provided with two compartments 31, 32. These compartments are separated by a double partition end wall 33, 33' which divides the blank into two bottom wall halves 34, 35. In this construction, the top wall comprises side rails 34', 34'' overlying the bottom wall half 34 and side rails 35', 35'' overlying the bottom wall half 35.

In erecting the dispenser of FIG. 4, portions of the blank shown in FIG. 5 are first removed to form cut-outs 36, 36', 37, 37', and 38, 38'; and the blank is creased along lines 39, 40, 41 and 42 to define side walls 43, 44 for the compartment 31 and side walls 45, 46 for the compartment 32. In addition, appropriate slits are formed at 47 and 48 in the portion of the blank forming compartment 31 and at 49 and 50 in the portion of the blank forming compartment 32. Also, the side rails 34', 34'' adjacent edges 51, 52 are folded along crease lines 51', 52' and the side rails 35', 35'' adjacent edges 53, 54 are folded along crease lines 53', 54'. The transverse spacing between the side rails defines cut-outs disposed centrally along opposite edges 51, 52 and 53, 54 and, as shown, these extend to the end wall 33, 33'.

The bottom walls 34, 35 of the blank shown in FIG. 5 are folded respectively along the lines 55, 56 and 57, 58 to defined curved closure flaps 59 and 60 similar to the closure flap 7 shown in FIGS. 1–3. In the construction of FIG. 4, the fold lines 55 and 57 define hinge lines similar to the hinge line 25 of FIGS. 1–3.

After the blank of FIG. 5 has been filled and folded into the position shown in FIG. 4, it is inserted into a tubular cover 61. As shown, the cover 61 is provided with a cut-out 62 in the center portion of the bottom wall for permitting access to the erected blank in the area of the double partition wall 33, 33'. With this construction, the erected blank may be moved in either direction within the tubular cover to expose one or the other of the dispensing ends by engaging the blank along the fold lines forming the partition wall 33, 33'. Also, as shown by the dotted lines in FIG. 5 representing cotton swabs 27, the depth of each compartment is made less than the length of the swabs so as to prevent misorientation of the articles when the compartment is partially depleted.

Although different embodiments of the present invention have been specifically described, it is to be understood that various changes may be made without departing from the scope of the invention as set forth in the following claims.

I claim:

1. A dispenser comprising:
(a) a bottom wall;
(b) a top wall overlying said bottom wall in spaced relationship and having a dispensing edge;
(c) side walls and an end wall extending in substantially perpendicular relationship to said top and bottom walls to define a dispensing opening below said dispensing edge with said side walls overlying said bottom wall and being free from said bottom wall inwardly of said dispensing opening; and
(d) a closure flap pivotally connected to said bottom wall along a hinge line extending parallel to said dispensing edge, said closure flap being curved outwardly of said hinge line in an upward direction to normally close said dispensing opening.

2. A dispenser according to claim 1, wherein:
(a) said hinge line is spaced inwardly of said dispensing edge.

3. A dispenser according to claim 1 wherein:
(a) said top wall is provided with a cut-out disposed centrally along said one edge.

4. A dispenser comprising:
(a) a bottom wall;
(b) a top wall overlying said bottom wall in spaced relationship and having one free edge;
(c) a cut-out disposed centrally along said one free edge;
(d) side walls and an end wall extending in substantially perpendicular relationship to said top and bottom walls to define a dispensing opening below said one edge with said side walls formed integrally with said bottom wall and being free from said bottom wall adjacent said dispensing opening; and
(e) a closure flap pivotally connected to said bottom wall along a hinge line positioned within the area where the side walls are free from said bottom wall and extending parallel to said one edge, said closure flap being curved outwardly of said hinge line in an upward direction to normally close said dispensing opening.

5. A dispenser according to claim 4 wherein:
(a) said side walls are free from said top wall adjacent said dispensing edge, and
(b) said top wall is curved downwardly along said dispensing edge to partially cover said dispensing opening.

6. A dispenser according to claim 5 wherein:
(a) said side walls comprise extensions of said bottom wall; and
(b) all of said walls are defined by a unitary blank of foldable material slidably disposed within a separate tubular cover for holding the dispenser in assembled condition.

7. A dispenser according to claim 5 wherein:
(a) said side walls comprise extensions of said top and bottom walls.

8. A dispenser according to claim 7 wherein:
(a) each side wall comprises separate extensions of said top and bottom walls and are secured together in overlapping relationship.

9. A dispenser according to claim 8 wherein:
(a) said walls are defined by a unitary blank of foldable material.

10. A dispenser according to claim 7 wherein:
(a) each side wall comprises a common extension of said top and bottom walls;
(b) said top wall defines side rail members overlying said bottom wall;
(c) said cut-out extends from said dispensing edge to said end wall; and
(d) all of said walls are defined by a unitary blank of foldable material slidably disposed within a separate tubular cover.

11. A dispenser according to claim 10 wherein:
(a) substantially identical dispensing openings are defined below two opposite edges of said top wall; and

(b) said end wall is positioned intermediate said dispensing openings to divide said dispenser into two substantially identical compartments.

12. A dispenser according to claim 11 wherein:
(a) said end wall comprises a double thickness of said blank material integral with said bottom wall and folded to form a groove extending across the outer surface of the bottom wall, and
(b) said tubular cover is provided with a cut-out intermediate its open ends immediately below said end wall.

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