Oct. 27, 1936. N. OTTINGER 2,058,818

CONTAINER

Filed May 24, 1935 2 Sheets-Sheet 1

Fig. 1.

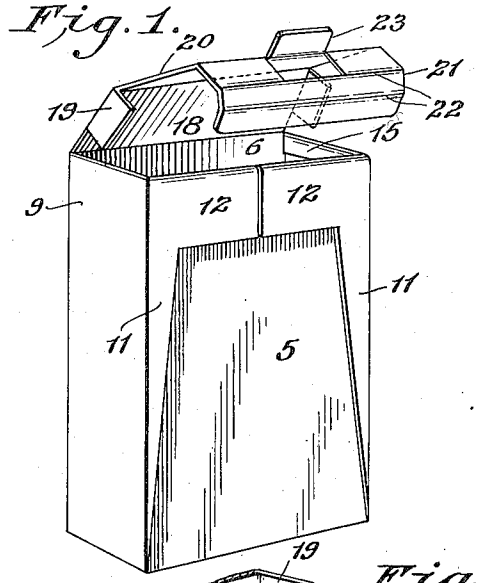


Fig. 2.

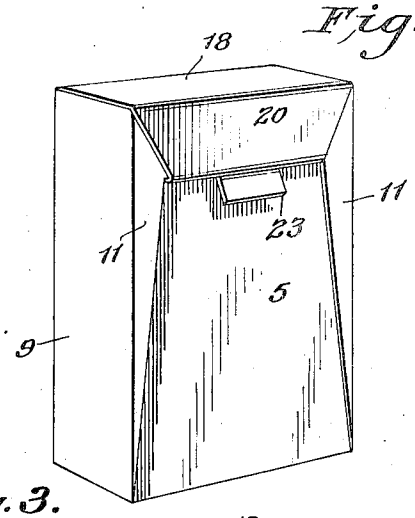


Fig. 3.

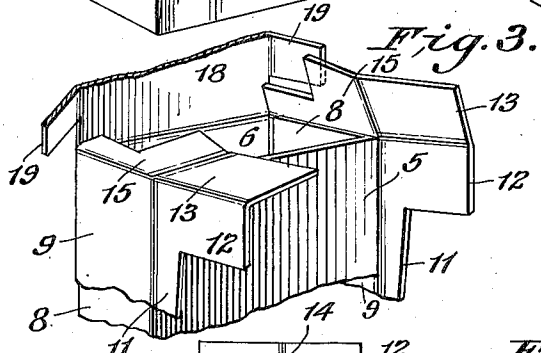


Fig. 4.

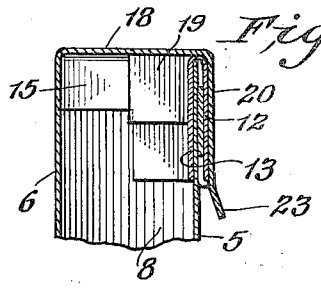
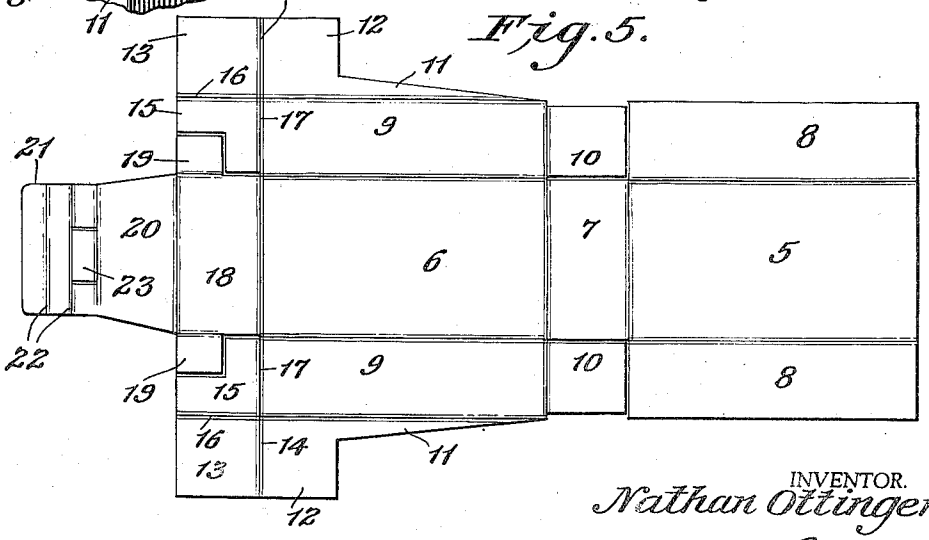


Fig. 5.



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Fig. 6.

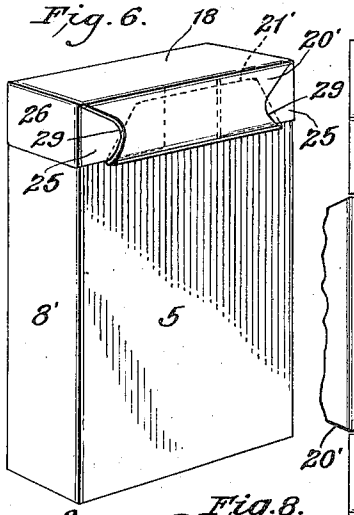


Fig. 7.

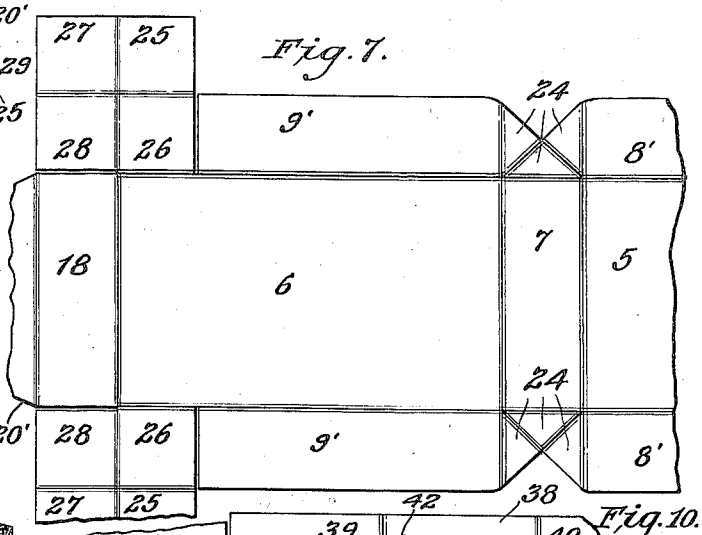


Fig. 8.

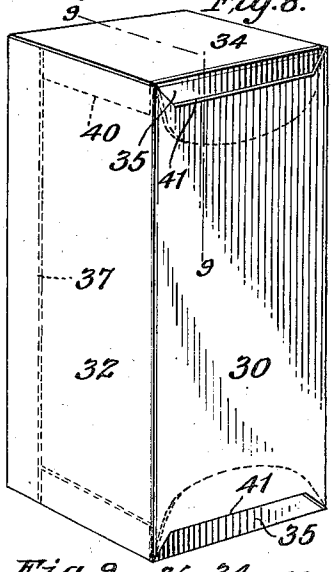


Fig. 10.

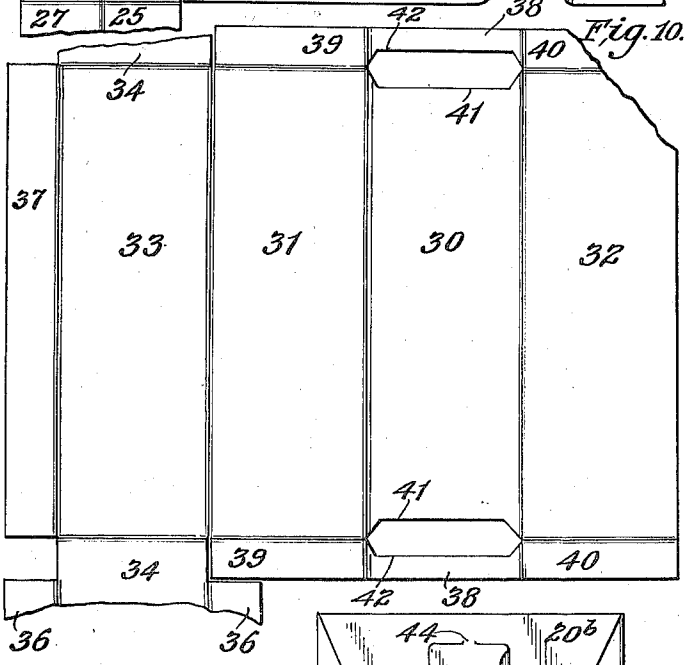


Fig. 9.

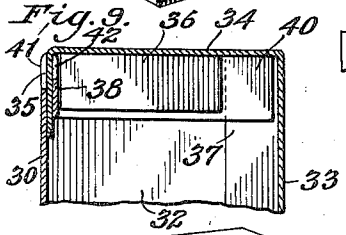
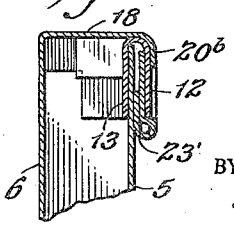


Fig. 13.



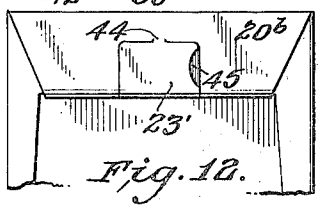
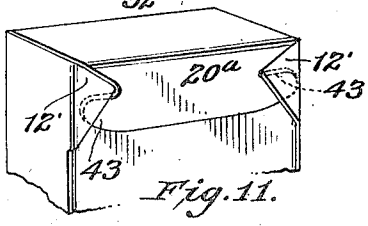


Fig. 12.

Fig. 11.



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UNITED STATES PATENT OFFICE

2,058,818

CONTAINER

Nathan Ottinger, New York, N. Y., assignor to Dorothy M. Ottinger, New York, N. Y.

Application May 24, 1935, Serial No. 23,279

8 Claims. (Cl. 229—16)

This invention relates to containers and has for its primary object to provide a box, envelope, or other form of container, produced from a single sheet of cardboard, paper or other suitable material, embodying relatively foldable parts and including integral means for retaining the body walls of the container in definite relation to each other, which obviates the use of small tabs, adhesives, staples and other similar fastening or locking means heretofore employed for this purpose.

The invention has for another object, in one embodiment thereof, to provide certain improvements in the box or container disclosed in Patent No. 1,928,792, issued to me on October 3, 1933, and in which the front wall of the box is provided with a horizontal pocket formed by folding the upper edge portion of said wall outwardly and downwardly. In the cheaper grades of paper board the opposite sides thereof are of different colors and, therefore, the exposed surface of the pocket forming wall will be of a different color from the color of the box walls. This has been found objectionable, and I, therefore, have devised a novel method of forming said pocket to receive the locking tongue or flap on the box closure and whereby the exposed surface of the pocket wall will correspond in color to the outer surfaces of the body walls of the box.

Additional objects of the invention are to provide a box or container blank involving a minimum waste of material and the parts of which may be easily and rapidly manipulated to produce the container as above characterized, which will be strongly resistant to internal and external pressures and practically non-collapsible, even when abusively handled, and also provide an inexpensive container of this type having a neat appearance with means for facilitating the release of the closure locking tongue or flap.

With the above and other objects in view, the invention consists in the improved container and in the form, construction and relative arrangement of the several parts, as will hereinafter be more fully described, illustrated in the accompanying drawings and subsequently defined in the subjoined claims.

In the drawings wherein I have illustrated several simple and practical embodiments of the invention and in which similar parts are designated by like reference characters throughout the several views:—

Figure 1 is a perspective view of one form of container embodying my present invention, showing the closure thereof in open position.

Fig. 2 is a similar view, the container closure being shown in closed position.

Fig. 3 is a fragmentary perspective view, illustrating one of the steps in the manipulation of the parts of the blank to form the container.

Fig. 4 is a fragmentary vertical section of the container, the closure therefor being secured in closed position.

Fig. 5 is a plan view of the blank from which the box or container is formed.

Fig. 6 is a perspective view, illustrating another embodiment of the invention.

Fig. 7 is a plan view of the blank from which the container of Fig. 6 is formed, parts thereof being broken away.

Fig. 8 is a view similar to Fig. 6 of another alternative form of the invention.

Fig. 9 is a fragmentary vertical section taken on the line 9—9 of Fig. 8.

Fig. 10 is a plan view of the blank from which the container of Fig. 8 is formed, parts thereof being broken away.

Fig. 11 is a fragmentary perspective view, showing a slight variation of the closure means for the container illustrated in Figs. 1 and 2.

Fig. 12 is a fragmentary front elevation, illustrating another modification.

Fig. 13 is a vertical section of the construction shown in Fig. 12, showing the finger tab in one adjustable position relative to the front wall of the box.

Referring in detail to the drawings, the box or container, which may be of any required dimensions for a desired predetermined capacity, is formed from a blank of paper-board of suitable weight and thickness. This one-piece blank, in the construction shown in Fig. 5, is die cut and scored to provide front and back walls 5 and 6 respectively, integrally connected by the bottom wall 7. Sections 8 extend along the opposite side edges of the front wall 5 and similar sections 9 are connected with the side edges of the back wall 6. The sections 9 at one of their ends have foldable extensions 10 which are adapted to extend upon the inner face of the end or bottom wall 7.

The outer side edge of each of the sections 9 is provided with a longitudinally tapering foldable part 11, said part at its wider end merging into one of the foldable flaps 12 of an integral extension of the section 9. An adjoining flap 13 is foldable along the score 14 relative to the flap 12 and a flap 15 is foldable relative to the flap 13 along the score 16, and with respect to the section 9 along the score 17.

The corresponding end of the back wall 6 has a foldable extension 18 to form the top or cover for the container, said cover section, at its opposite ends, having foldable wings 19 cut from the flaps 15.

The free longitudinal edge of the cover section 18 has a tapering extension 20 terminating in a foldable tongue 21. This tongue may be divided into sections by spaced parallel scores 22 to facilitate folding thereof. A tab 23 is cut from one of said sections and remains integrally connected to the narrow end of the extension 20.

The box or container is formed from the blank by first bending the parts 8 and 9 at right angles to the walls 5 and 6. After folding the extensions 10 inwardly the walls 5 and 6 are then arranged in parallel relation with the parts 8 extending upon the inner sides of the parts 9 which form the opposite side walls of the box.

The parts 11 and 12 are now bent inwardly over the outer surface of the front wall 5, and at the same time, the flaps 13 and 15 are folded downwardly along the score lines 14, 16 and 17, so that the flap 13 will lie against the inner face of the front wall 5, while the flap 15 extends downwardly over the upper end of the part 8 and upon the face thereof. The bend or juncture between the flaps 12 and 13 at the score 14 fits closely over and upon the upper edge of the wall 5. The angularly disposed flaps 13 and 15 in conjunction with the flap 12 thus positively lock and secure the front and back walls of the box in erect parallel relation to each other against all possibility of accidental collapse. It will be noted that these locking flaps are of substantial size and that I avoid the use of the usual slots and cooperating tongues, the latter being comparatively small and easily torn off under strain. Also these relatively foldable flaps may be very easily and quickly manipulated, while the exposed surfaces of the flaps 12 are of the same color as the outer surfaces of the walls 5, 6, 7 and 9 of the box.

The flaps 12, extending inwardly over the upper end of the front wall 5, form a substantially continuous pocket, open at its lower side, which I prefer to utilize for the purpose of securely holding the cover 18 in its closed position, though, if desired, the ordinary cover having a flap to extend downwardly against the inner side of the front wall may be used. As shown, the cover extension 20 is held in closely overlying relation upon the flaps 12 by folding the terminal tongue 21 upwardly into said pocket, where it is confined between said flaps and the front wall 5 of the box. The tab or finger piece 23 projects downwardly from the extension 20 at the lower edge of the pocket and affords convenient means for facilitating the withdrawal of the tongue 21 from the pocket when it is desired to open the box. The wings 19 extend downwardly from the ends of the cover upon the flaps 15, and in conjunction with the tongue 21 and flaps 12 securely hold the cover in closed position and effectually prevent relative movement between the cover and the box walls.

The parts 11 materially strengthen the box structure and with the part 20 lend a unique ornamental appearance to the container which may serve as a distinctive form of package for a particular commodity.

In Figs. 6 and 7 of the drawings I have illustrated an alternative construction whereby a maximum unobstructed front wall surface is obtained for the reception of printed matter. In this case the side wall sections 8' of the blank, at opposite edges of the front wall 5, are folded over and upon the outer sides of the sections 9', connected to the edges of the rear wall 6. Thus the front vertical corners of the box or container smoothly merge into the front and side walls, the free edges of the sections 8' being disposed at the rear side of the box. Preferably, the opposing ends of the sections 8' and 9' of the blank are connected to each other and to the bottom section 7 by the relatively foldable parts 24, which fold inwardly against the bottom wall 7 in a manner well known in the art.

The side wall sections 9' are relatively short and terminate below the upper end of the rear wall 6, with which the relatively foldable flaps 25, 26, 27 and 28 are connected. As shown in Fig. 6, when the parts of the blank are folded to form the container, flaps 26 extend across the upper ends of side wall sections 8' from the edges of the rear wall 6, while flaps 25 overlie the front wall 5 to form the closure tongue receiving pocket. Flaps 27 and 28 extend downwardly over the inner sides of the front and side wall sections 5 and 8' respectively.

The extension 20' of the cover section 18 is provided with the tongue 21' to fold upwardly into the pocket formed by the flaps 25, as above described, and instead of the finger tab 23 cut from said tongue, I may provide finger receiving notches or recesses 29 in the opposite ends of the extension 20' for facilitating the easy withdrawal of the tongue from said pocket.

The above described constructions are ordinarily employed where a tight and secure closure of the container is a prime consideration and are admirably adapted for use as vending containers for heavy articles, such as bottled goods or the like, since the interlocking tongue and pocket securely holds the cover section 18 in closed position against release by pressure of the container contents thereon.

In Figs. 8, 9 and 10, I have shown a vending container for comparatively light weight commodities, such as cigars, cakes or the like, where the cover section is not subjected to severe internal pressure. In this construction the blank is scored to provide a front wall 30, side walls 31 and 32 connected with opposite edges of said front wall, and a rear or back wall 33 connected to one of said side walls. The latter wall at one or both of its ends has a cover section 34 connected therewith and provided with an end flap or tongue 35 and wings 36 on its opposite side edges. The free longitudinal edge of the back wall 33 is also provided with a foldable wing 37. It will be understood, of course, that these wall sections of the blank may be of any suitable dimensions in accordance with the purpose for which the container is to be used. The front and side wall sections 30, 31, and 32 are provided at one or both of their ends with the foldable flap extensions 38, 39 and 40, respectively. The end of the front wall 30 is recessed, as at 41, and the flap 38 is provided with an opposing recess 42.

In forming the box or container shown in Fig. 8, the flaps 38, 39 and 40 are first folded upon the inner sides of the wall sections 30, 31 and 32 and said walls and the wall 33 then relatively adjusted along the longitudinal score lines into right angular relation to each other. The end of the wing 37 on the rear wall is frictionally held between the wall 32 and the end of the flap 40, while wings 36 on the cover frictionally bear against the flaps 39 and 40, as clearly shown in Fig. 9. The recess

42 in the flap 38 is of less depth than the recess 41 so that the horizontal edge of the recess 42 is above the corresponding edge of the recess 41, to thus afford an exposed portion of flap 38 against which the free edge of the tongue 35 on the cover may be engaged and thereby facilitate the insertion and downward movement of said tongue between the flap 38 and the front wall 30 of the container. Thus, the frictional cooperation between the flap 38 and tongue 35, and flap 40 and wing 37 effectively acts to hold the body walls of the box or container against displacement relative to each other. When the cover 34 is open the recess 42 enables the articles in the container to be readily grasped and withdrawn therefrom, a feature of particular importance in flat shallow boxes or containers, such as are usually employed in the vending of cigars, crayons and like commodities.

In Fig. 11 of the drawings I have shown a slight modification of the closure means for the container illustrated in Figs. 1 and 2. The flaps 12' may be of substantially triangular form to provide corner pockets at opposite edges of the front wall of the container. These pockets receive the laterally projecting tongues 43 on opposite ends of extension 20^a of the box cover, whereby the latter is securely held in its closed position.

Figs. 12 and 13 illustrate a further modification in which the finger tab 23' is initially cut in the cover extension 20^b, having one of its ends integral therewith at the juncture of said extension with the tongue 21. The other end of the tab is not completely severed but, at its center, remains integral with the extension, as indicated at 44. A notch 45 is cut in one side edge of the tab 23' for engagement by the finger nail, whereby the connection at 44 may be readily broken and said tab bent outwardly from the plane of the extension 20^b. In the subsequent use of the device by the purchaser, after the closure securing tongue is inserted upwardly into the pocket, the tab 23' may also be bent at its juncture with said tongue and inserted upwardly into the pocket, as shown in Fig. 13. Thus, said tab while readily accessible for use will not catch in the pocket lining or be easily torn off.

In the drawings I have shown my invention applied to a particular type of container although the novel features thereof are of more or less general application. The invention has, for instance, been used to advantage in mailing envelopes for second class mail matter. In such case, the parts 7, 8 and 9, flaps 15 and cover 18 above referred to are omitted. The parts 11 are of somewhat greater width and directly connected to the edges of the back wall of the envelope. The flaps 12 and 13 folded upon opposite sides of the front wall of the envelope at its upper edge, with the tongue 21 and closure extension 20 coacting with the flaps 12, effectually close the envelope while enabling the same to be easily opened for examination of its contents by postal authorities. Other forms of receptacles or containers adapted for a variety of different uses and in which my invention may be advantageously employed will, from the foregoing, be readily suggested to those conversant with the art.

I have herein disclosed several forms of the blank, each of which provides a container capable of being quickly set up, and which will be strong and substantial even when a comparatively light weight material is used. However, various structural changes in the container blank may be required, in accordance with the particular type of container or the purpose for which it is to be used. Accordingly, I reserve the privilege of resorting to such alternatives for the several novel features of the invention as herein described, which may fairly be comprehended within the spirit and scope of the appended claims.

I claim:

1. A container comprising front and back walls, and relatively foldable parts connected with each side edge of the back wall, embracing the upper edge portion of the front wall and extending downwardly upon the inner and outer faces thereof, to retain said front wall in substantially parallel relation to the back wall of the container.

2. A container formed from a one-piece blank of flexible material and comprising front and back walls, lateral extensions on opposite side edges of the back wall, each including a part foldable over and upon the outer surface of the front wall, and relatively foldable flaps, connected to one end of said part, embracing the upper edge portion of the front wall and extending downwardly upon the outer and inner faces thereof, to retain said front wall in substantially parallel relation to the back wall of the container.

3. A container formed from a one-piece blank of flexible material and comprising front and back walls, lateral extensions on opposite side edges of one of said walls forming side walls of the container, and each of said extensions having a part folded over and upon the other of said first named walls and provided at one of its ends with relatively foldable flaps, extending downwardly within the container in contact, respectively, with said latter container wall and with one of the side walls thereof.

4. A container formed from a one-piece blank of flexible material and comprising front and back walls, lateral extensions on opposite side edges of one of said walls forming side walls of the container, each side wall at one end having a plurality of integrally connected, relatively foldable flaps, a pair of said flaps embracing the other of said first named walls at one of its ends and extending downwardly upon the inner and outer faces thereof, and another of said flaps extending downwardly in substantially parallel relation to said side wall of the container.

5. A container formed from a one-piece blank of flexible material and comprising front and back walls, each having lateral extensions on its side edges folded upon each other to form side walls, and a plurality of relatively foldable, integrally connected flaps on one end of each outer side wall extension, a pair of said flaps embracing an end portion of one of the first named walls and extending downwardly upon the outer and inner faces thereof, and another of said flaps extending downwardly upon the inner side wall extension connected with the latter container wall.

6. A container formed from a one-piece blank of flexible material and comprising front and back walls, and having lateral extensions on opposite edges of the back wall, each extension including a part foldable over and upon the outer surface of the front wall, relatively foldable flaps, connected to one end of said part, embracing the end edge portion of the front wall and extending downwardly upon the outer and inner faces thereof, to retain said front wall substantially parallel relation to the back wa

of the container, said outer flaps forming a substantially continuous pocket open at its lower edge, a cover section connected with one end of said back wall, having an extension provided with a tongue foldable into said pocket, to secure the cover extension in closely superimposed relation to said pocket forming flaps.

7. A container comprising front and back walls, and relatively foldable flaps connected with each side edge of the back wall, embracing one end edge portion of the front wall and extending downwardly upon the inner and outer faces thereof, to retain said front wall in substantially parallel relation to the back wall of the container, said outer flaps forming a substantially continuous pocket open at its lower edge, a cover section connected with one end of said back wall, having an extension provided with a tongue foldable into said pocket, to secure the cover extension in closely superimposed relation to said pocket forming flaps, and a pull tab integrally connected at the juncture of said extension and tongue and projecting from the open edge of said pocket.

8. A container formed from a single paperboard blank and comprising front, back and side walls and a cover connected with the back wall at one end thereof, a plurality of relatively foldable flaps connected with each side edge of the back wall, pairs of said flaps being folded over the end edges of the front and side walls and extending upon opposite sides thereof, interiorly and exteriorly of the container, and said cover having means engageable with the corresponding exterior flaps to retain said cover in its closed position.

NATHAN OTTINGER.