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2,848,152

PAPER CONTAINER AND BLANK FOR CONSTRUCTING SAME

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FIG. 1.

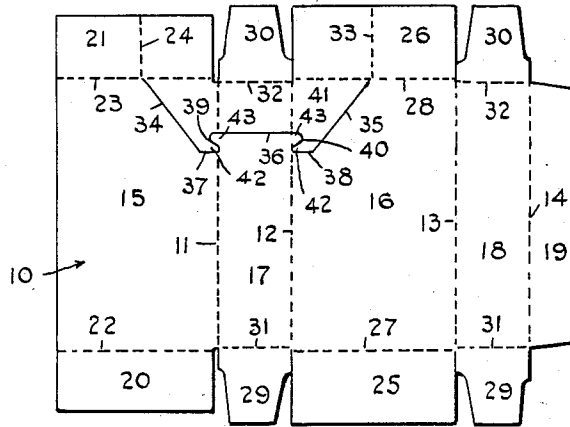


FIG. 2.

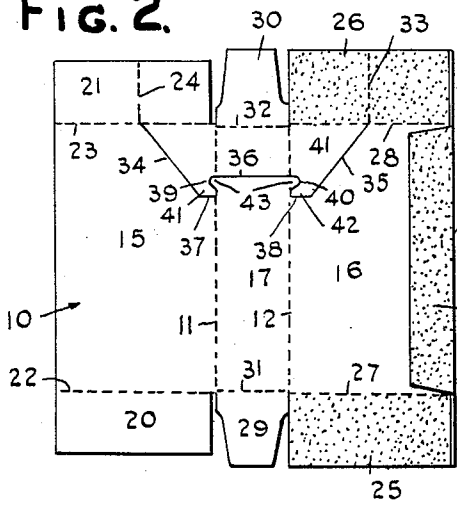


FIG. 3.

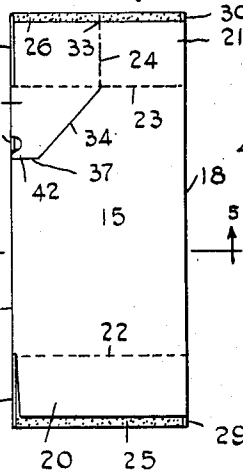


FIG. 4.

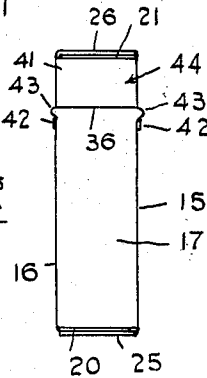


FIG. 6.

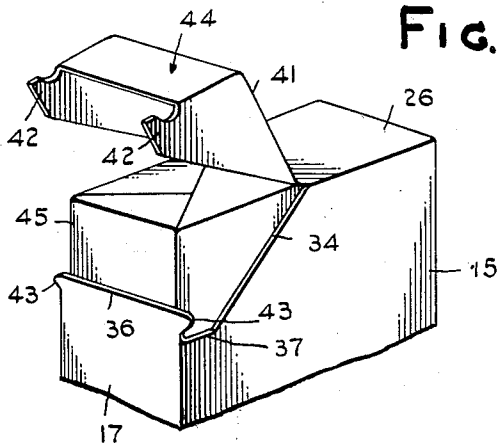
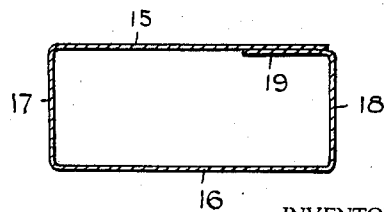


FIG. 5.



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PAPER CONTAINER AND BLANK FOR CONSTRUCTING SAME

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1 Claim. (Cl. 229—17)

This invention relates to a box or container and to a blank for constructing the same.

A primary object of the invention is to provide a novel and simplified one piece blank for use in making paper or like containers for cigarettes, other tobacco products, cereals and the like.

A further object is to provide a paper box or container made from a unitary blank and having a simplified corner closure and novel means for maintaining the latter in closed position.

A further object is to provide a container of the above-mentioned character which will greatly facilitate dispensing cigarettes or the like with one hand.

An additional object is to provide a blank and container which is highly economical to manufacture and therefore suitable as a container for cigarettes or the like articles requiring an inexpensive construction.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a plan view of a blank in accordance with the invention with the same in the initially flat unfolded condition.

Figure 2 is a further plan view of the blank after a first folding operation and with glue applied to parts of the same.

Figure 3 is a side elevation of the partly completed box or container resulting from further folding of the blank.

Figure 4 is a side elevation of the completed container after final folding of the blank, looking at the narrow side of the container.

Figure 5 is a transverse vertical section taken on line 5—5 of Figure 3.

Figure 6 is an enlarged fragmentary perspective view of the container with its closure member open and showing the contents of the container and the means for securing the closure in closed position.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of the invention, the numeral 10 designates an initially flat one piece cardboard or paper blank as a whole to be used in the construction of the box or container. The blank is generally rectangular as shown in Figure 4 and is somewhat elongated and provided with pairs of spaced parallel transverse score lines 11, 12, 13 and 14, as shown. These score lines divide the blank 10 into first and second relatively wide rectangular panels 15 and 16 of substantially the same size, and first and second relatively narrow rectangular panels 17 and 18 of substantially the same size, the panel 17 being arranged between the panels 15 and 16, and the panel 18 being at the outer or right hand side of the panel 16 in Figure 1. The panels 15, 16, 17 and 18 are adapted to form or constitute the four sides of the rectangular container of the invention shown by Fig-

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ures 4 and 6, as will be further described. At the outer side of the narrow panel 18, the blank 10 further includes a relatively narrow flap 19, integral therewith, and being substantially rectangular and extending for the full length of the panel 18 and foldable upon the line 14.

The relatively wide panel 15 is provided at its opposite ends with relatively wide rectangular flaps 20 and 21, integral therewith, and foldable upon score lines 22 and 23 extending longitudinally of the blank. The flap 21 is also foldable upon a transverse score line 24 perpendicular to the line 23 at the transverse center of the panel 15. Correspondingly, the panel 16 is provided at its opposite ends with relatively wide rectangular flaps 25 and 26, foldable upon fold lines 27 and 28 and being slightly longer than the flaps 20 and 21, as indicated. The relatively narrow panels 17 and 18 are likewise provided at their opposite ends with relatively narrow and preferably somewhat tapered flaps 29 and 30, as shown, foldable upon longitudinal score lines 31 and 32 at the junctions of the flaps and relatively narrow panels. As shown in Figure 1, the several longitudinal score lines 22, 31, 27 and 31 and the score lines 23, 28 and 32 are in substantial alignment, although staggered slightly an amount equal to the thickness of the blank to facilitate properly folding the various flaps in the assembled container. The flap 26 is further foldable transversely upon a transverse score line 33, perpendicular to the line 28 at the transverse center of the wide panel 16.

In order to provide for the novel diagonal corner opening and the hinged corner closure member of the completed container, Figure 6, the blank 10 is formed with a pair of diagonal outwardly diverging slits 34 and 35 extending therethrough, said slits extending from the junctures of the score lines 23 and 24 and 28 and 33 inwardly, as shown. A longitudinal slit 36 is formed through the blank between the diagonal slits 34 and 35 and somewhat outwardly from their inner ends and parallel to the score lines 23, 32 and 28. The slit 36 extends entirely across the relatively narrow panel 17 and the diagonal slits 34 and 35 are formed across the corners of the panels 15 and 16, as shown. Relatively short aligned longitudinal slits 37 and 38 extend from the inner ends of the diagonal slits toward each other and terminate at the transverse score lines 11 and 12, Figure 1. The inner ends of the short slits 37 and 38 are in substantial lateral alignment with the ends of the slit 36, and these ends of the respective slits are connected, as shown, by generally S-shaped slits 39 and 40. The several slits, as described, thus form in the blank 10 near one side of the same an inwardly tapering tongue 41, which is centered or symmetrical with respect to the panel 17 and formed partly from the material of this panel and partly from the material of the panels 15 and 16. The tongue is foldable upon the lines 11 and 12 and also upon the line 32. It is formed adjacent to and inwardly of the longitudinal score lines 23 and 28. The tongue thus formed by the slits includes at its inner corners a pair of opposed claw or hook-like extensions 42, integral therewith, and having interfitting engagement in the flat blank 10 with small rounded projections 43 formed by the slits 39 and 40, as shown. These projections 43 are adapted to form locking lugs or detents for the hinged closure in the completed container, as will be further described.

In the first step toward forming the container of Figures 4 and 6, the panel 18 is folded upwardly upon the line 13 so as to be at right angles to the panel 16, Figure 2, and the flap 19 is folded upon the line 14 so as to overlie the panel 16 in spaced relation therewith and to be at right angles to the panel 18 and parallel

with the panel 16. Suitable glue or cement may now be applied to the entire upper face of the flap 19 and also to the flaps 26 and 25, Figure 2. The narrow panel 17 is now folded upwardly upon the line 12 so as to be parallel with the previously folded panel 18 and the panel 15 is now folded upon the line 11 so as to be at right angles to the panel 17 and parallel to the panel 16 and overlapping the glue coated flap 19. The panel 15 is now pressed against the flap 19 so that it will adhere thereto, and the rectangular body portion of the container is now completed to the extent shown in Figure 4, wherein the end flaps are still open, as shown.

It is to be noted here that the score lines 11 and 12 preferably do not extend through the projections or lugs 43, and accordingly, when the blank is folded into its condition of Figure 3, the small projections 43 will not be folded upon the lines 11 and 12 and will project at right angles to the wide panels 15 and 16 which are now parallel for forming the opposite wide sides of the container. The projections 43 will be disposed in the same plane as the narrow container side 17, Figure 3. Likewise, the interlocking claw-like portions 42 in Figure 3 will be disposed in the planes of the panels or sides 15 and 16 and at right angles to the plane of the projections 43.

To complete the container of Figure 4, it is now only necessary to fold inwardly the flaps 29, 20 and 25, the latter having the glue coating and adhering to the outer face of the folded flap 20 for completing the lower end wall of the container, Figure 4, such end wall now being permanently closed. Correspondingly, the flaps 30 are folded downwardly and the flap 21 is folded upon these, after which the glue coated flap 26 is folded downwardly and pressed against the flap 21 so as to complete and close the upper end wall of the container. When this is done, the score lines 24 and 33 of the flaps 21 and 26 coincide or register, and the top end wall of the container may readily be flexed or bent as indicated in Figure 6 along the score lines 24 and 33 for opening and closing the hinged closure 44 which is now formed by the tapered tongue 41, together with the flaps constituting the upper end wall of the container. It will be seen also that the diagonal slits 34 and 35 and the longitudinal slit 36 of the blank form in one upper corner of the completed rectangular container a diagonal opening or mouth through which the contents of the container are dispensed when the closure 44 is open. For the purpose of illustration, the contents of the container in Figure 6 has been illustrated to be cigarettes or the like in a conventional paper or foil wrapper 45, itself constituting no part of this invention. The container is well adapted to hold various types of goods in addition to cigarettes, such as tobacco, cereals, candy or the like. The construction is however particularly suitable for the convenient dispensing of cigarettes with one hand, as should be obvious, the hinged corner closure 44 being manipulated with the thumb.

Whenever closure 44 is shifted to the closed position, the claw-like extensions 42 will engage the lugs or projections 43, Figure 6, and the latter being rounded will tend to cam or bend the extensions 42 outwardly somewhat and allow them to pass underneath the lugs 43 and to be resiliently locked in such position, Figure 4. The lugs 43 may also yield or bend somewhat to facilitate this interlocking engagement with the extensions 42. This arrangement has been found to be suitable where

the container is formed of relatively stiff paper for holding the closure 44 rather securely in the closed position and allowing the same to be opened the required number of times for dispensing all of the cigarettes from a conventional package of twenty cigarettes, without failure or wearing out of the interlocking parts 42 and 43. If desired, the blank 10 may obviously be formed of some other sheet material more durable than paper or cardboard.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described the invention, I claim:

A blank for constructing a container, said blank being generally rectangular and having pairs of transverse fold lines dividing the blank into a pair of relatively wide rectangular panels and a pair of relatively narrow rectangular panels, said relatively wide and narrow panels being alternately arranged in the blank, a flap carried by one end of the blank to be coated with glue for securing the blank in folded condition to form the body portion of the container, flap means carried by the opposite sides of the blank and foldable to form the end walls of the container, a tongue cut from the material of the blank adjacent one longitudinal side of the blank and being disposed wholly inwardly of such side, said tongue having a pair of diagonal marginal edges which converge inwardly toward the central portion of the blank and away from the side of the blank adjacent the tongue, said tongue having a transverse marginal edge between said diagonal converging edges and extending across one of said relatively narrow panels a substantial distance inwardly of said side of the blank having the tongue, said diagonal edges of the tongue extending a somewhat greater distance inwardly toward the center of the blank and the distance said transverse edge of the tongue is spaced inwardly in the blank, said diagonal converging edges of the tongue extending across corners of the relatively wide panels, a pair of opposed tapered claw-like extensions formed integral with said tongue in spaced relation adjacent to the inner relatively narrow end of the tongue, the extremities of said extensions lying substantially upon the pair of fold lines defining said one relatively narrow panel, and a companion pair of projections cut from the blank just outwardly of said claw-like extensions and interfitting therewith and having corresponding marginal sides in alignment with said transverse edge of the tongue, said projections being disposed in the blank at the opposite sides of said one relatively narrow panel formed by said pair of transverse fold lines, said projections being readily bendable.

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