The present invention relates broadly to cardboard containers, and in its specific phases to a new and improved slide top carton intended primarily for packaging cigarettes or cigars but not necessarily restricted to this field of use, since it is adapted for dispensing other articles such as pills.

In the cigarette field the standard practice, until recently, has been to pack cigarettes in groups of twenty in what is known as "soft pack" packages which are relatively satisfactory while the package is substantially full, but allows the cigarettes to be crushed when only partially full. To meet this condition a "hard pack" package has been put into common use, and which has a "flip top" end on the package. Such packages are conducive of cigarettes drying out and are subject to the cover catching the edge of the ends of the cigarettes, unless carefully handled, and tearing same. While "hard pack" packages are needed to avoid crushing the cigarettes when the package is almost empty, no fully adequate "hard pack" cigarette package has been devised. It was a recognition of this problem and the lack of any wholly satisfactory solution to same which led to the conception and development of the present invention.

Accordingly among the objects of the present invention is the provision of a simple and inexpensive construction in which the side walls of the package or carton are provided, at one corner, with novel swingable corner portions connected to a slide top, this top being openable at one end by outward swinging of said corner portions and closable by inward swinging thereof.

Another object of the invention is to provide in a novel manner the effective holding of the major portions of the carton side walls against distortion and spreading at their upper ends.

A further object is to provide in novel manner for effectively holding the swingable corner portions of the side walls against spreading.

A further object is to provide several forms of a novel one-piece blank from which to form the improved dispensing carton in an expedient and inexpensive manner.

A still further object is to provide a package which is adaptable, not only for holding and dispensing cigarettes or like items, but also loose rollable articles such as pills.

Still further objects and advantages of the invention will appear as the description proceeds.

To the accomplishment of the foregoing and related ends, the invention, then, consists of the carton blank and slide top container hereinafter fully described and particularly pointed out in the claims, the annexed drawings and the following description setting forth in detail certain means for carrying out the invention, such disclosed means illustrating, however, but several of the various ways in which the principle of the invention may be used.

In the annexed drawings:

Figure 1 is an inner side view of a blank adapted for use in producing a carton with slide top in accordance with the present invention.

Figures 2, 3 and 4 are perspective views showing different stages in forming a carton from the blank illustrated in Figure 1.

Figure 5 is a perspective view with portions broken away and showing the carton with its top formed in readiness for loading from the bottom.

Figure 6 is a fragmentary vertical sectional view as taken on line 6—6 of Figure 5, looking in the direction of the arrows.

Figure 7 is a fragmentary transverse sectional view of the carton as taken on line 7—7 of Figure 6; looking in the direction of the arrows.

Figure 8 is a perspective view with a portion broken away for clarity of illustration and showing the filled carton sealed in readiness for marketing.

Figure 9 is a perspective view showing the slide top of the carton of Figure 8 opened, and a portion of the inner carton liner removed to expose the cigarettes contained therein.

Figure 10 is a view similar to Figure 7, showing a modification.

Figure 11 is a sectional view as taken on line 11—11 of Figure 10, looking in the direction of the arrows.

Figure 12 is an inner side view of a modified form of a blank adapted for use in producing a carton with a slide top in accordance with the present invention.

Figure 13 is a perspective view similar to Figure 9 but utilizing the blank of Figure 12.

Figure 14 is a fragmentary vertical center section similar to Figure 6 of a closed carton formed from the blank of Figure 12.

The one-piece blank B of Figure 1 may be considered as cut from a suitable thickness piece of cardboard, preferably from 14 to 20 thousandths in thickness, although any other suitable material could be employed.

This blank includes a side panel 12 at one end of said blank. A rear panel 13 is connected along a vertical fold line 14 with the inner vertical edge of the side panel 12. A second side panel 15 is connected along a vertical fold line 16 with the vertical edge of the rear panel 13 remote from the side panel 12. A front panel 17 is connected along a vertical fold line 18 with the vertical edge of the side panel 15 remote from the rear panel 13. A corner seam or flap 19 is connected along a vertical fold line 20 with the vertical edge of the front panel 17 remote from the side panel 15, and adapted to be glued in conventional manner to the edge of side panel 12 in the finished carton.

This flap 19 could well be connected with the outer vertical edge of the side panel 12, instead of to the front panel 17, if desired. All of the panels 12, 13, 15, and 17 are of substantially uniform length.

Four bottom panels 21, 22, 23, and 24 are shown connected along horizontal fold lines 25 to the lower edges of the panels 12, 13, 15, and 17, respectively, but any other known panel arrangement could well be employed to form the carton bottom.

An elongated, rectangular slide panel 26 projects upwardly from the rear panel 13, Figure 1, and is joined along a horizontal fold line 27 to said edge. The slide panel 26 and rear panel 13 are of substantially uniform width; and the length of said slide panel corresponds to the width of the side panels 12 and 15.

Near its upper end, the rear panel 13 is formed with a horizontal hinge line 28 which extends from the fold line 14 to the fold line 16. For identification purposes, the upper end portion of the rear panel 13 between the hinge line 28 and the slide panel fold line 27, is given the reference number 29.

The upper, inner corner portions 30 of the two side panels 12 and 15, Figure 1, are separated from the major portions of said side panels by severance slits 31 which extend from the upper edges of said side panels 12 and
to the position shown in Figure 5, the slide top 26 is closed to protect all of the cigarettes remaining in the box or cigarette container. As this slide top 26 slides under the connected tongues 32 and upon the top of the inner package P containing the cigarettes, said slide top cannot catch upon and injure any of the cigarettes and cannot fail to tightly close.

In Figures 10 and 11, a slight modification is shown in which the lapped and secured together tongues 35 underlie the slide top 26 instead of overlying the same. The first described construction, however, is preferred and does not require as much springing of the slide top during opening and closing.

In Figures 12, 13, and 14 a modified blank and carton made therefrom has been illustrated. This carton is especially adapted for dispensing small pieces of candy, salted Spanish peanuts, pils, et cetera. The blank, as shown in Figure 12, has an extra tongue 41 on the upper end of front panel 17 with a fold line 42 joining same, and an opening 43 adjacent said fold line and through which to dispense small articles packed in the carton when the slide top of same is moved to the position shown in Figure 13 and the carton tilted for pouring its contents through the opening. Upon moving the slide panel 26 to the position shown in Figure 14 the opening 43 will be closed and the carton sealed against further dispensing.

From the foregoing, it will be seen that novel, inexpensive, and desirable cartons and carton blanks have been disclosed. Regarding the specific disclosures herein given, however, it is to be understood that further variations in construction and use may well be made within the scope of the invention as claimed. Moreover the directional terms such as “upper,” “bottom,” “front,” “vertical,” “horizontal,” et cetera, have been used for convenience of describing the cartons and blanks hereinafter treated in the drawings, and are not to be considered as limiting upon the invention herein set forth and claimed.

Other modes of applying the principle of my invention may be employed instead of those explained, change being made as regards the cartons and blanks herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:
edges of the two side walls respectively, said tongues being lapped and secured together.

4. A structure as specified in claim 1, in which said holding means comprises a transverse tie extending between the upper edges of said separated corner portions.

5. A structure as specified in claim 1, in which said holding means comprises a transverse tie extending between the upper edges of said separated corner portions, said tie extending under said slide top.

6. A structure as specified in claim 1, in which said holding means comprises a transverse tie extending between the upper edges of said separated corner portions, said tie extending under said slide top.

7. A structure as specified in claim 1, in which said holding means comprises two tongues, one connected to each of the upper edges of said separated corner portions respectively, said tongues being lapped and secured together.

8. A structure as specified in claim 1, in which said holding means comprises two tongues, one connected to each of the upper edges of said separated corner portions respectively, said tongues being lapped and secured together, said tongues freely extending over said slide top.

9. A structure as specified in claim 1, in which said holding means comprises two tongues on the upper edges of said separated corner portions respectively, said tongues being lapped and secured together, said tongues extending under said slide top.

10. A structure as specified in claim 1, in which said front wall has a tongue hingedly connected to the upper end of said side walls respectively, said tongue being a dispensing hinge edge thereof, the end of said tongue being under said slide top and extending beyond the forward edge of said transverse tie means which connects the upper edges of said side walls.

11. A slide top carton comprising a bottom, two opposed side walls and front and rear walls rising from said bottom and of substantially uniform height, two lapped tongues integral with the upper edges of said side walls, said lapped tongues being secured together and being spaced rearwardly from said front wall, so as to provide an outlet opening, and forwardly from said rear wall, a slide top extending slidably under said lapped tongues and normally closing the upper end of the carton, the rear end of said slide top being hinged to and integral with the upper edge of said rear wall, said rear wall having a transverse hinge line above the lower end of same and parallel with said upper edge thereof and below the latter, the upper rear corner portions of said side walls being separated from the major portions of said side walls by severance cuts which extend downwardly and rearwardly from the rear edges of said lapped tongues to said hinge line of said rear wall, and two additional lapped tongues, one of which is integral with the upper edge of one of said separated corner portions and the other tongue integral with the upper edge of the other corner portion, said lapped tongues being disposed at one side of said slide top and being secured together; said separated corner portions, said additional lapped tongues and the upper end of said rear wall being unitarily swingable rearwardly about said hinge line of said rear wall, to pull said slide top to open position and then return it to closed position.

12. A structure as specified in claim 11, in which said additional lapped tongues freely extend over said slide top.

13. A structure as specified in claim 11, in which said additional lapped tongues extend under said slide top.

14. A structure as specified in claim 11, in which said front wall has a tongue hingedly connected to the upper end of same, said tongue being of substantially the same width as said front wall and having a dispensing opening therethrough adjacent the hinge edge of same, the end of said tongue being under said slide top and extending beyond the forward edge of said transverse tie means which connects the upper edges of said side walls.

15. A blank from which to form the herein disclosed carton, said blank comprising one side panel disposed at one end of the blank, a rear panel connected along a vertical fold line with the vertical edge of said one side panel, a second side panel connected along a vertical fold line with the vertical edge of said rear panel remote from said one side panel, a front panel disposed at the other end of the blank and connected along a vertical fold line with the vertical edge of said second side panel remote from said rear panel, all of said panels being of substantially uniform length, a seam flap connected along a vertical fold line with one of said panels for connecting the ends of the blank when folded to form the walls of the carton, an elongated slide panel projecting upwardly from the upper edge of said rear panel and joined thereto along a horizontal fold line, said rear panel and said slide panel being of substantially uniform width, said panel having a hinge line spaced downwardly from said horizontal fold line, the upper inner corner portions of said side panels being separated from the major portions of said side panels by severance slits which extend from the upper edges of said side panels to the ends of said hinges, two upwardly projecting tongues connected along horizontal fold lines with the upper edges of said side panels respectively, said tongues being disposed between said severance cuts and the vertical edges of said side panels remote from said rear panel and being spaced inwardly from these edges, two additional upwardly projecting tongues connected along horizontal fold lines to the upper edges of said separated corner portions of said side panels, and bottom panels connected along horizontal fold lines with at least some of the wall forming panels of the blank.

16. A structure as specified in claim 15, in which said front panel has a tongue on its upper end, a horizontal fold line at the junction of said front panel with its tongue, said tongue being at least as long as the distance from said front panel to the adjacent tongues on the upper end of the side panels, and no longer than the width of said side panels, said front panel tongue having a dispensing opening therethrough adjacent the hinged end of same.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 2,902,201

Douglas R. Engblom

September 1, 1959

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, line 59, for "horizontal" read — horizontal —; column 3, line 45, for "said" read — side —; column 4, line 15, for "dispensing" read — dispensing —; line 70, after "in which the" insert — rear —.

Signed and sealed this 19th day of April 1960.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents