Oct. 1, 1940. W. A. RINGLER 2,216,324

DISPENSING CONTAINER

Filed Oct. 19, 1938 2 Sheets-Sheet 1

Fig. 1

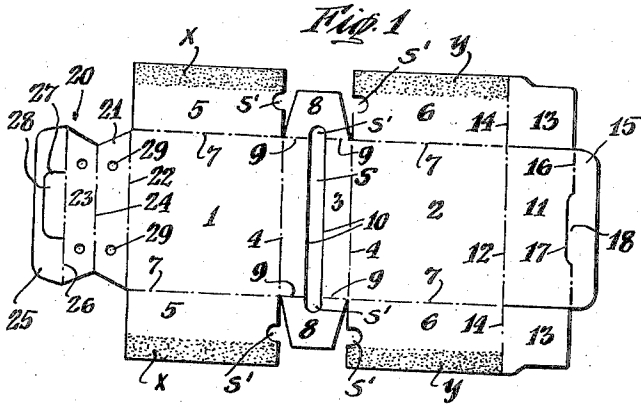

Fig. 8

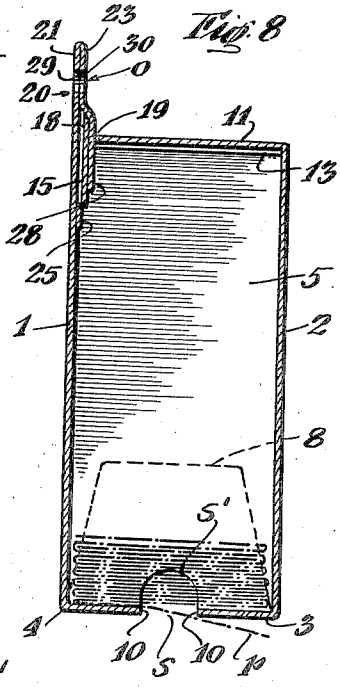

Fig. 2

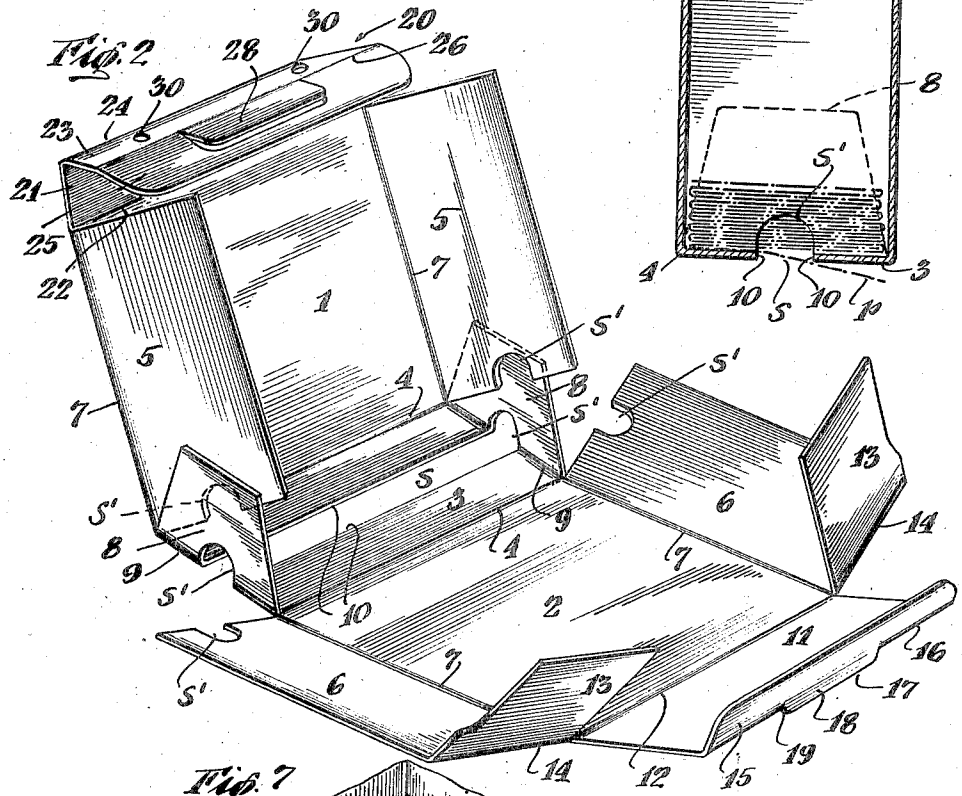

Fig. 7

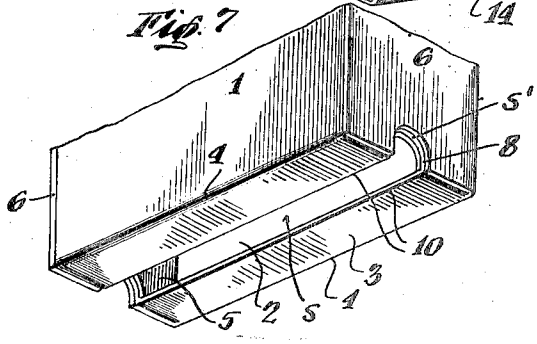

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Fig. 3

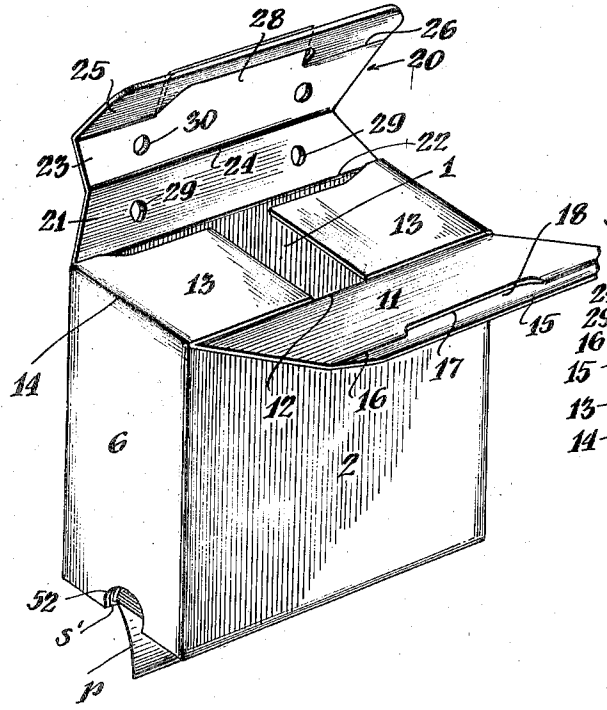


Fig. 4

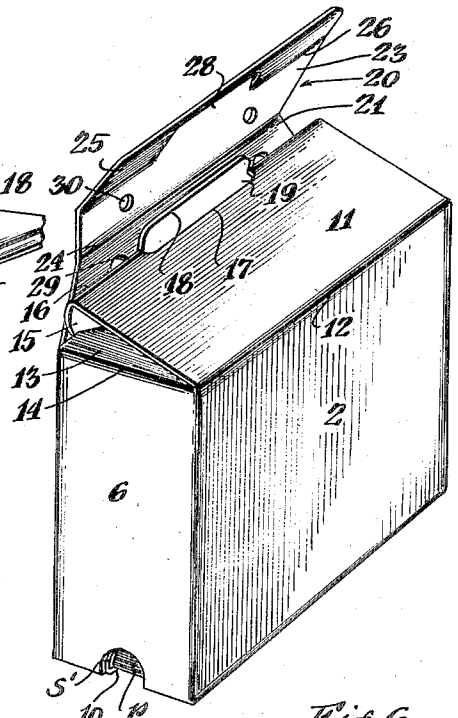


Fig. 5

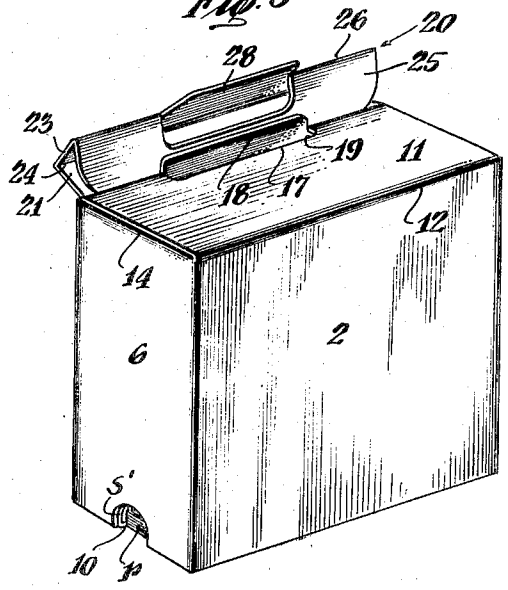
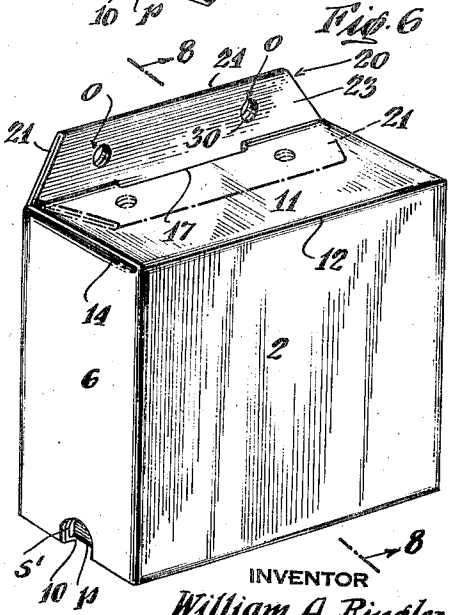


Fig. 6



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UNITED STATES PATENT OFFICE

2,216,324

DISPENSING CONTAINER

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Application October 19, 1938, Serial No. 235,726

3 Claims. (Cl. 206—57)

This invention relates to dispensing containers and more particularly to a dispensing container formed from paperboard material adapted for the dispensing of interleaved sheets.

Articles of merchandise such as toilet tissue, paper towels, paper napkins and facial tissue are generally packed and sold in lots of one hundred or more sheets which are folded and interleaved together so that the withdrawal of one sheet will expose the free end of the next succeeding sheet so that it can be readily grasped and withdrawn from the stacked pile of sheets. Such stacked interleaved sheets are generally packaged in a shipping carton or container from which they are removed and then inserted into a permanent dispenser which forms no part of the original carton in which the interleaved stack of sheets is packed. A satisfactory and economically constructed interleaved sheet-dispensing device, which could serve both as a shipping carton and a dispensing device and which can be so economically made as to permit the same to be discarded after the sheets have been dispensed therefrom, has long been sought.

It is an object of this invention to provide an improved dispensing container for interleaved sheets, in which the interleaved sheets may be packed and shipped and from which the sheets may be separately dispensed as desired, which dispensing container can be economically manufactured and packed substantially entirely by automatic machinery, at a cost which compares favorably with the cost of manufacturing and packing paperboard cartons for this purpose which do not possess the dispensing feature.

Another object of this invention is to provide an improved paperboard dispensing container having a suspension hanger associated therewith whereby the container may be conveniently suspended from one or more wall hooks while the sheet contents are being dispensed therefrom.

Still another object of this invention is to provide an improved dispensing container formed from a single blank of paperboard material in which sheeted articles of merchandise, such as toilet tissue, paper towels, paper napkins and facial tissues, may be packaged and contained during shipment and storage and from which such sheeted articles may be individually dispensed.

Another object of this invention is to provide an improved container formed from a single blank of paperboard material having a hanger device associated therewith by which the container may be hung in suspended position for display or dispensing purposes, the hanger device having means associated therewith for locking the container closure in closed position.

Other objects of this invention will become apparent as the disclosure proceeds.

In accordance with my invention an improved dispensing container is provided formed from a single blank of paperboard material into which the interleaved sheets arranged in stacked relationship may be inserted during the assembly of the container, the container further being provided with a hanger device by means of which the container may be held in suspended position while the interleaved sheets are individually dispensed and withdrawn through a dispensing slot or opening provided in the bottom section thereof. A dispensing slot may be provided in the bottom wall section which is hingedly connected to the lower edges of the front and rear wall sections, the bottom wall slot extending upwardly a distance into the side wall sections so that a portion of the ends of the lowermost sheets are exposed so as to facilitate grasping of the lowermost sheet to withdraw the same from the dispensing slot.

My improved dispensing container is provided with a hanger device which comprises a hanger flap extending upwardly and hinged to the rear wall section and a downturned hanger flap hinged to the first-named hanger flap, through which hanger flaps one or more suspension apertures are provided. A double-ply hanger device is thus provided which provides a strong and sturdy hanger support for the container and its contents. A closure flap is hinged to the front wall section, which is of a size to substantially cover the top end of the container. The closure flap is provided with a tuck-in flap hinged thereto which extends into the container. The hanger device is provided with a locking tab adapted to be inserted into an elongated slot provided in the closure flap to lock the closure flap in closed position.

Various other features and advantages of the invention will be apparent from the following particular description and from an inspection of the accompanying drawings.

Although the novel features which are believed to be characteristic of this invention will be particularly pointed out in the claims appended hereto, the invention itself, as to its objects and advantages, and the manner in which it may be carried out, may be better understood by referring to the following description taken in connec-

tion with the accompanying drawings forming a part thereof, in which

Fig. 1 is a plan view of a prepared blank from which my improved dispensing container is formed;

Fig. 2 is a perspective view of the blank shown in Fig. 1 folded into partially assembled container-forming position;

Fig. 3 is a perspective view of the container as it appears after the sheet material to be dispensed therefrom has been inserted therein;

Fig. 4 is a perspective view of the packed container showing the container closure flap partially assembled in container-closing position;

Fig. 5 is a perspective view of the packed container showing the flap closure thereof, as it appears at a further stage of assembly into closed position;

Fig. 6 is a perspective view of the packed container as it appears when fully assembled and closed ready for suspension upon suitable wall hooks;

Fig. 7 is a fragmentary perspective view of the bottom portion of the container, showing more particularly the elongated dispensing opening in the bottom section thereof; and

Fig. 8 is a vertical cross-sectional view through the fully assembled container, this view being taken on line 8—8 of Fig. 6;

Similar reference characters refer to similar parts through the drawings and the specification.

The assembled dispensing container, as illustrated in Fig. 6, may be formed from a single blank of substantially rectangular paperboard material, as illustrated in Fig. 1, the blank comprising a rear wall section 1 and front wall sections 2 which are joined by a bottom wall section 3 along the fold lines 4. Side wall-forming flaps 5 extend laterally from the rear wall section 1 and are hinged thereto along the fold lines 7. Side wall flaps 6 extending laterally from and hinged to the front wall section 2 along the score lines 7 are also provided. The side wall flaps 6 overlap the side wall flaps 5 and are adhesively secured thereto to provide side wall sections for the assembled container.

The bottom wall section 3 is provided with bottom flaps hinged to each end thereof along the score lines 9, the score lines 9 being substantially a continuation of the adjacent score lines 7. The bottom wall section 3 is provided with an elongated dispensing slot *s* cut out therefrom, the slot *s* terminating in end slot *s'* cut out from the bottom wall tabs 8. The slot *s* is of such width as to define between the side edges 10 thereof a slot through which folded sheet material *p*, such as folded toilet tissue may be dispensed, as illustrated in Fig. 8.

A closure flap 11 hinged to the front wall section 2 along the score line 12, is provided to form a closure for the top of the container. The closure flap 11 is of such width and length as to substantially cover the top end of the container body when placed in container-closing position. Top end flaps 13 hinged to each of the side wall-forming flaps 6 along the score lines 14 are provided, which are turned inwardly so as to overlie the open end of the container after the sheet contents have been packed therein. The closure flap 11 is provided with a tuck-in flap 15 which is hinged thereto along the spaced score lines 16, and when the container is assembled is tucked inwardly so as to lie adjacent the inside face of the rear wall section 1. A cut line 17 joins the spaced score lines 16, the cuts 17 being somewhat arcuate in shape so that when the tuck-in flap is inserted inwardly of the container, a lug portion 18 cut out from the closure flap 11 extends upwardly and defines a slit opening 19 between the tuck-in flap 15 and the adjacent free edge of the closure flap 11.

A convenient hanger device 20 connected to the rear wall section 1 of the container blank is provided, from which the container may be held in suspended position from one or more wall hooks, so that the sheet contents may be conveniently dispensed. The hanger device comprises a hanger flap 21 hinged to the upper end of the rear wall section 1 along the score line 22, and a downturned hanger flap 23 hinged to the hanger flap 21 along the score line 24, so as to provide a double ply paperboard hanger. One or more holes or openings 29 are provided in hanger flap 21 with which corresponding holes or openings 30 provided in the downturned hanger flap 23 aline to provide alined hook-receiving openings *o* in the hanger device.

Means associated with the hanger device are provided for locking the closure flap 11 in closed position, which means comprises an inturned flap 25 hinged to the inturned hanger flap 23 along the score line 26, the inturned flap 25 lying between the inside face of the rear wall section 1 and the tuck in flap 15 of the closure 11 when the container is in closed assembled position. A locking tab 28 cut out from the inturned flap 25 by the cut line 27 therein is arranged to be inserted into the slit 19 so as to overlie the lug projection 18 and the tuck-in flap 15 of the closure flap 11, to lock the closure 11 in closed position.

In assembling the dispensing container from the blank shown in Fig. 1, a strip of glue *x* is applied to the outside face of the side wall flaps 5 and, if desired, a similar strip of adhesive *y* may also be applied in strip form to the inside face of the side wall flap 6. In assembling the blank shown in Fig. 1 in container-forming position, the bottom tabs 8 are turned substantially at right angles to the bottom wall section 3, the side wall flaps 5 are turned so as to lie substantially at right angles to the rear wall section 1. The rear wall section 1 is then raised into position substantially at right angles to the bottom wall section 3 and the side wall-forming flaps 5 positioned against the inside face of the bottom tab 8. The front wall section 2 is then raised into position substantially at right angles to the bottom wall section 3 and the side wall flaps 6 are then inturned substantially at right angles to the front wall section 2 so as to overlie the outside face of the bottom tabs 8 and the side wall flaps 5. The flaps 5 and 6 are then firmly pressed into contact so that the adhesive strips *x* and *y* retain the side wall flaps 5 and 6 firmly together to provide rigid side wall sections. If desired, adhesive may also be applied to the bottom tab 8 to secure these tabs to the side wall flaps 5 and 6. It will be noted that, as thus assembled, the bottom tabs 8 are positioned between the adjacent side wall flaps 5 and 6 and are preferably adhesively secured thereto so that the bottom wall section 3 is firmly and sturdily supported not only by the rear wall section 1 and front wall section 2 but also by the side wall flaps 5 and 6.

A sturdy container body is provided which is adapted to receive and support a plurality of stacked interleaved sheets comprising the product to be dispensed. The assembly of the container body as well as the packaging of the sheets therein can be performed substantially entirely by

automatic machinery. It will be appreciated that the stacked interleaved sheets *p* may be inserted into the container when the container body has been fully assembled in the manner above described, or the stacked interleaved sheets may be positioned upon the bottom wall section **3**, adjacent the rear wall section **1** when the container has only been partially assembled and before the front wall section **2** has been raised into position at right angles to the bottom section **3**.

After the sheet contents *p* have been positioned within the fully or partially assembled container body and the side wall flaps **5** and **6** firmly secured together, the upper end of the container is sealed by turning the end flaps **13** inwardly, as shown in Fig. 3, and then turning the closure flap **11** inwardly and inserting the tuck-in flap **15** downwardly into the container so as to extend along the inside face of the rear wall section **1**, as illustrated in Fig. 4. The hanger flap **23** is then folded downwardly over the hanger flap **21** and the tuck-in flap **25** inserted so as to lie between the inside face of the rear wall section **1** and the tuck-in flap **15**. Substantially simultaneously with the insertion of the tuck-in flap **25** into the container, the locking tab **28** is inserted into the slot **19** so as to overlie the lug portion **18** and the inside face of the tuck-in flap **15**, thus firmly locking the closure flap **11** in fixed closed position so that the contents of the container are firmly sealed therein and cannot be removed by shaking or handling the container in an upside-down position. The openings *o*, formed by the alined openings **29** and **30** in the hanger flaps **21** and **23**, provide a convenient means for hanging the container in suspended position where the sheets *p* can be easily and conveniently removed. It will be noted that the alined score lines **22** and **26** permit folding of the double ply hanger device comprising the hanger flaps **21** and **23** into position to overlie the outside face of the closure flaps **11**, as shown in dotted lines in Fig. 6, so that the hanger device does not appreciably project from the container when a plurality of the filled containers are packed for shipment.

The arrangement of the interleaved sheets *p* is well known in the art and need not here be particularly described. It will be noted, however, that the side wall flaps **5** and **6** are each provided with end slots *s'* which register with the end slots *s'* in the bottom tabs **8** when the container is fully assembled. The lowermost interleaved sheets *p* can be grasped by extending the fingers into the slot *s*, although usually removal of one sheet *p* will pull out the end of the next superimposed sheet in the position shown in Fig. 8, so that this sheet may be easily grasped. Should the interleaved sheets *p* become in any manner disarranged so that the withdrawal of the lowermost sheet will not pull out the end of the next superimposed sheet through the slot *s*, it will be appreciated that a finger or other instrument may be inserted through one of the end slots *s'* appearing in the side wall section of the assembled container to grasp and withdraw the lowermost sheet.

The improved container, as illustrated in Figs. 1 to 8 inclusive, is highly adapted for the packaging of lightweight sheets of paper tissue. The container may be economically formed from a single blank of paperboard material substantially rectangular in form, which is cut and scored from large sheets or rolls of paperboard on an automatic cutting and scoring machine substantially without waste. The container may be assembled and the stacked interleaved tissue sheets packed therein substantially automatically, producing a package which is neat in appearance and strong and sturdy in construction. When the container has been closed and the locking tab **28** inserted through the slot **19**, the closure **11** is locked in closed position and the container with its contents may be roughly handled and abused without danger that the closure flap will spring open. When the hanger flaps **21** and **23** are swung downwardly so as to overlie closure flap **11**, a rectangular package substantially free of projections is provided, so that a plurality of such filled containers can be economically packed in a minimum of space for shipment and storage. When the tissue is to be used, the packed container may be suspended from a pair of wall hooks by the hanger device **20**, so that the tissue sheets can be separately grasped and removed through the dispensing slot *s*. A highly satisfactory and economical dispensing container for paper tissue and like sheet material is thus provided.

The dispensing containers herein disclosed are economical in paperboard, can be formed, packed and assembled substantially entirely by automatic machinery at relatively low cost. The container lends itself readily to attractive decoration, and may be made of any desired size suitable to house and contain the stacked interleaved sheets.

While certain novel features of the invention have been disclosed herein and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. In combination with a paperboard box structure having a rear wall section, a front wall section, side wall sections connecting said front and rear wall sections, a closure flap hinged to said front wall section adapted to substantially cover the open end of said box structure, and a tuck-in flap hinged to said closure flap extending into said box structure, of a hanger and closure flap locking device formed integral with said box structure which includes, a hanger flap forming an extension of said rear wall section and extending beyond said closure flap when in closed position, a second hanger flap hinged to said first-named flap having a tuck-in portion extending into the box structure between said rear wall section and the tuck-in flap first mentioned, and means for locking said closure flap in closed position, said means including a downwardly extending locking tab struck out centrally from said second hanger flap, and a narrow slot in said closure flap adjacent said first-named tuck-in flap for frictionally receiving said tab.

2. A container formed from a single blank of paperboard material including, a body portion comprising an article-supporting bottom section, a rear wall section, a front wall section and side wall sections connecting said front and rear wall sections, a closure flap hinged to said front wall section adapted to substantially cover the open end of said container, a tuck-in flap hinged to said closure flap extending into said container, a hanger flap forming an extension of said rear wall section and extending beyond said closure flap when in closed position, a second hanger flap hinged to said first named hanger flap, said hanger flaps having alined openings therein through which container-supporting wall projec-

tions may extend, a tuck-in flap hinged to said second hanger flap extending into the container between said rear wall section and the tuck-in flap first mentioned, and means for locking said closure flap in closed position, said means including a locking tab hinged to said second named tuck-in flap, and a tab-receiving slot in said closure flap adjacent said first named tuck-in flap.

3. In combination with a paperboard box structure having a rear wall section, a front wall section, a closure flap hinged to said front wall section, and a tuck-in flap hinged to said closure flap extending inwardly adjacent said rear wall section, of a hanger and closure flap locking device which includes a hanger flap forming an extension of said rear wall section and extending beyond said closure flap when in closed position, a second hanger flap hinged to said first-named hanger flap, an upstanding lug portion cut out from said closure flap and defining a slotted opening in said closure flap, and a locking tab associated with said second hanger flap projecting downwardly through said slot to overlie said tuck-in flap and associated lug portion whereby to lock said closure flap in closed position.

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