

April 14, 1959

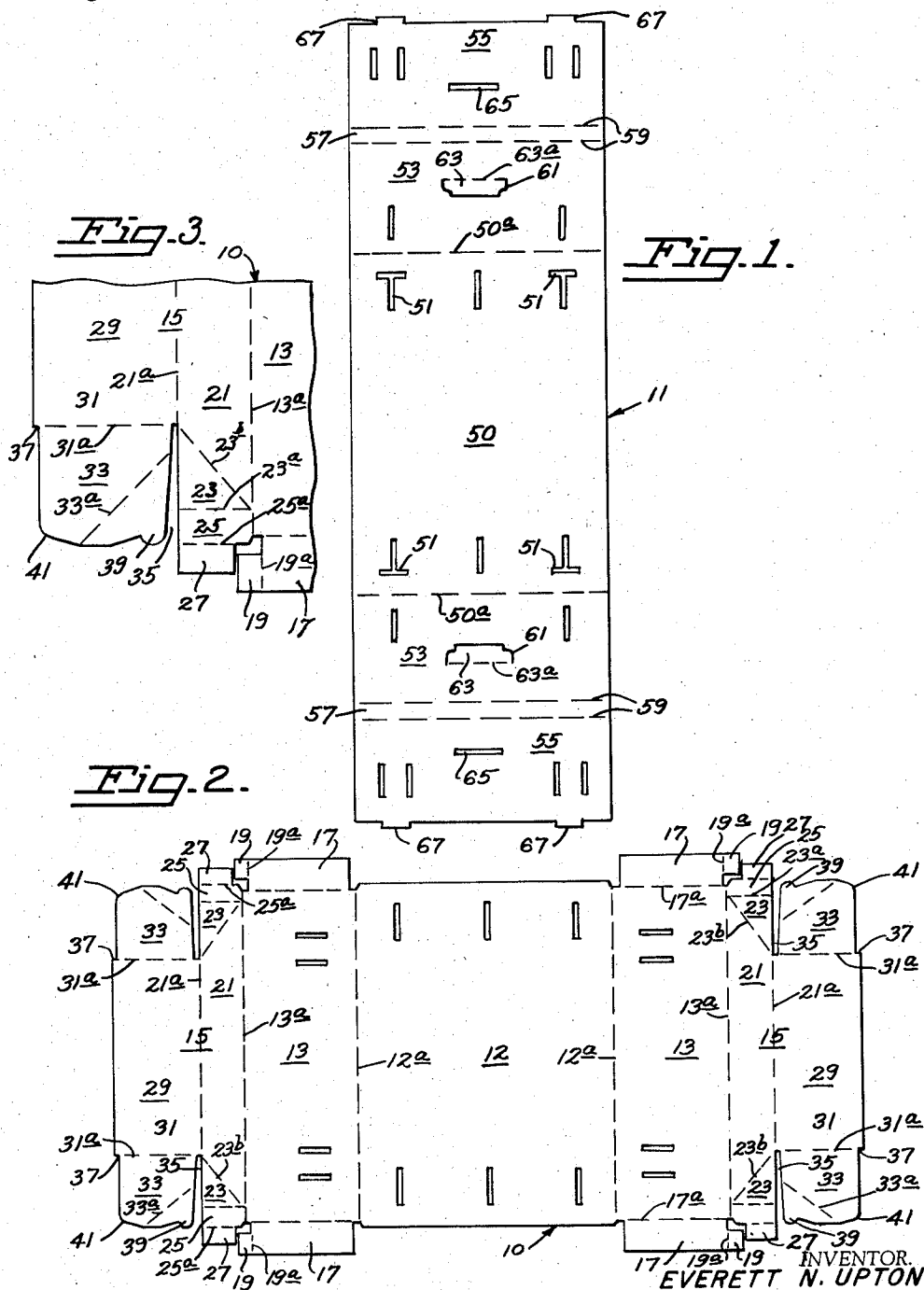
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2,881,969

INSPECTION COVER AND BULGE TOP PAPER BOX

Original Filed March 11, 1957

3 Sheets-Sheet 1



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Original Filed March 11, 1957

3 Sheets-Sheet 2

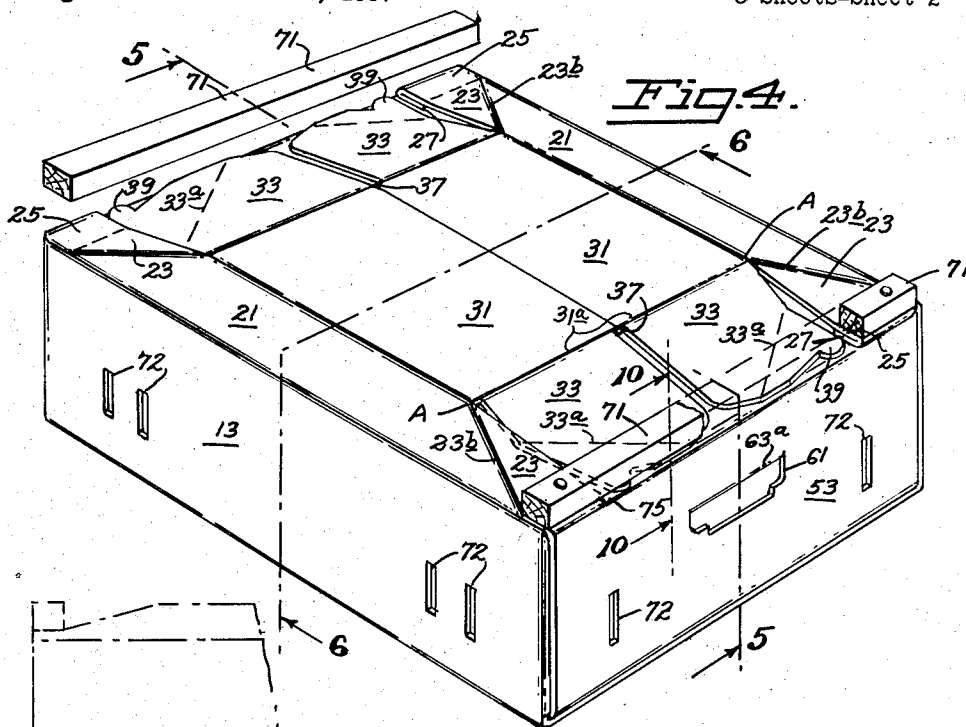


Fig. 4.

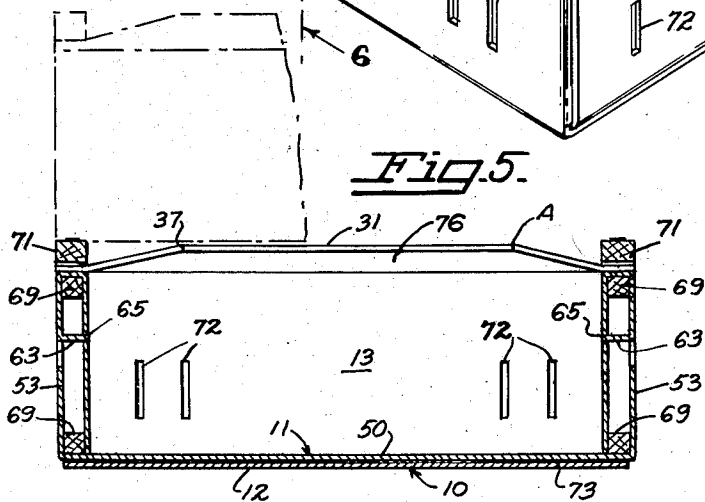


Fig. 5.

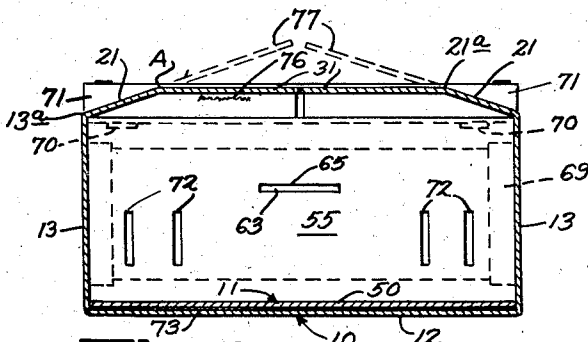


Fig. 6.

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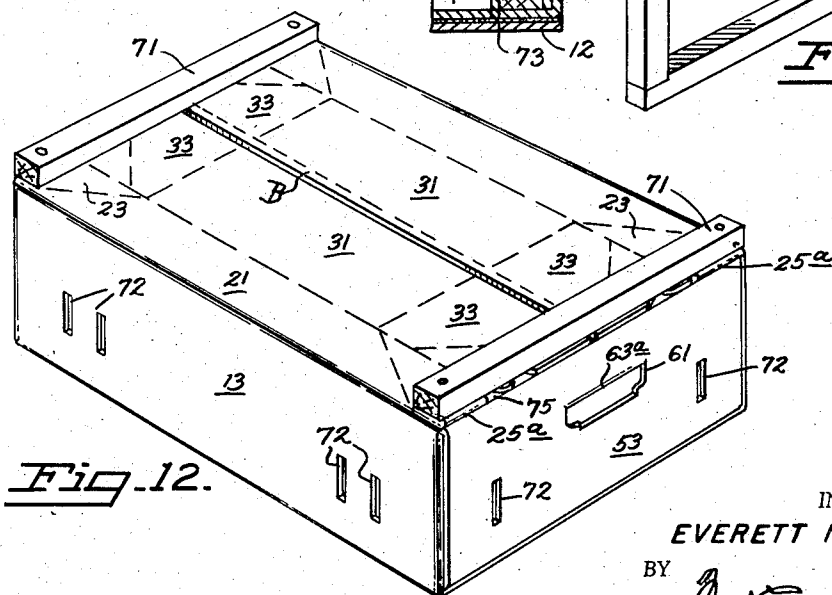
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3 Sheets-Sheet 3



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2,881,969

INSPECTION COVER AND BULGE TOP
PAPER BOX

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Continuation of application Serial No. 645,080, March 11, 1957. This application December 23, 1957, Serial No. 704,783

23 Claims. (Cl. 229—43)

This invention relates to paper board boxes with inspection cover and more particularly to such boxes adapted for selective use as a flat-top or bulge-pack, and is a continuation of my copending application Serial No. 645,080, filed March 11, 1957, entitled Inspection Cover and Bulge Top Paper Box, now abandoned. In the so-called bulge-pack the box is filled to an elevation above the height of the end walls and side walls, the invention herein having means to compensate for such additional height effected by the bulging top. This type of packing box may be made of double-ply kraft paper with a corrugated layer therebetween and generally referred to as corrugated paper board.

Basically the so-called bulge-pack lug or crate is well known, meaning thereby that the container is filled to a height above the side walls, and in which the cover, usually slatted, is fastened to the ends of the container and arched or bowed across the top of the contents. Such covers have usually been made of wooden slats nailed to the end walls of the box and cleats are then nailed transversely across the ends of the slats. Because of the pressure of the arched or bowed slats on the product, such boxes have not been acceptable for products which are more or less subject to damage by pressure, such as grapes, tomatoes, head lettuce, cauliflower, and the like. While cleats at the ends of such box covers may compensate for the height of the bulge of the top insofar as superimposed weight is concerned in stacking of such boxes, the cleats do not remove the pressure on the product which is inherent in the pressure of such arched or bowed slats. These and other difficulties have been present in endeavoring to make a satisfactory bulge-pack box of paper board, such as the difficulty of holding or locking the side walls against bulging, and also providing sufficient lateral strength to stand the stress of so-called humping, which is lateral pressure against stacked boxes to prevent looseness in the stack. Furthermore, in making shipments in boxes generally, the contents of random representative boxes are inspected by opening the box to view of an inspector, thus requiring either leaving the box open after inspection or renailing the cleats which hold the ends of the cover; also when the boxes finally reach the retail merchant he usually inspects each box which he purchases.

There are many highly desirable characteristics of such bulge type of packing, such as differential in freight rates and so-called bonus weights in buying and selling whereby a shipper pays freight or a wholesale jobber buys and pays for packed boxes on the basis of the rated size of the box, say 30 pounds, yet because of the bulge pack the carrier may transport, or the jobber may actually receive, 32 or 33 pounds of actual product. When the jobber sells to the retailer, he sells on the basis of actual poundage of contents, and if he has received two or three pounds of bonus weight in both freight and product, it frequently represents the entire profit in a transaction. The practical advantages of an inspection cover and a bulge-pack box is therefore apparent from the commercial

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angle, and the advantages of providing such features in a foldable paper board box are evidenced by the present trend toward use of paper board boxes generally.

Among the objects of the present invention are to provide a paper board box in which the contents may be readily inspected; to provide a paper board box having reinforced end frames longitudinally and laterally locked to the end walls and side walls; to provide a bulge-pack box in which the box including the bulged top or cover is made of paper board integral with side walls of the box and folded therefrom; to provide such a box having reinforced ends and bottom; to provide a paper board box which facilitates inspection of contents; to provide for supporting weight of superimposed stacked boxes free of pressure on a bulge-top cover, and to improve generally upon inspection-type and bulge-pack boxes of foldable paper board material.

With the foregoing and other objects in view as will more fully appear from the specification herein, a preferred form in which the invention may be exemplified is described herein and illustrated in the accompanying drawings which are made a part hereof.

In the drawings:

Fig. 1 is a plan view of an inner blank from which the box of the invention is formed;

Fig. 2 is a plan view of an outer blank from which the box of the invention is formed;

Fig. 3 is an enlarged fragmentary view of a portion of Fig. 2;

Fig. 4 is a perspective view of a formed box of the invention in bulge-pack form;

Fig. 5 is a longitudinal vertical section on line 5—5 of Fig. 4;

Fig. 6 is a transverse lateral vertical section on line 6—6 of Fig. 4;

Fig. 7 is an enlarged fragmentary perspective view of a portion of the box of Fig. 4;

Fig. 8 is an enlarged fragmentary perspective view of a portion of the box structure of Fig. 7 illustrating formative position of parts;

Fig. 9 is an enlarged fragmentary vertical section on line 9—9 of Fig. 7;

Fig. 10 is an enlarged fragmentary vertical section on line 10—10 of Fig. 4;

Fig. 11 is a perspective view of a frame member.

Fig. 12 is a perspective view of the box employed in a rectangular form, though having the same constructive elements as the box of Fig. 4.

Referring to the drawings in which like reference characters indicate corresponding parts in the several views, it will be observed that the box is comprised of a pair of substantially rectangular elongated blanks of suitable paper board sheet material, in which 10 indicates generally an integral box-forming blank designated as an outer blank, and 11 indicates a box-forming blank generally designated as an inner blank, such designation being relative to the bottom wall of the formed box, since each blank also provides outer side or end walls. Each blank is an integral series of panels. Though it would be practical to cut the area of the blanks from a single planar sheet of paper board material, the making of the body from a pair of panels has two advantages, firstly, it permits overlying bottom panels to provide rigidity and strength to the bottom where the box is subject to the greatest stresses and roughest treatment; secondly, it saves a large quantity of paper material, since if the panels were combined as a single unit and cut from a single sheet, there would be a very substantial loss of material of the four-corner portions of the material from which the blank is cut. Since the blanks are divided into panels by score lines, it may be here noted that reference herein to score-

line in the blanks means lines where the material has been weakened by indentation for bending.

The outer blank 10 has a preferably elongated bottom panel 12, the opposite two ends of which are free. Integrally connected to the opposite longitudinal side edges of the bottom panel, at the score lines 12a, are relatively similar units of panels, designated as the side wall panels 13, and the composite cover panels 15, the latter being integrally connected to the opposite side of the side wall panels 13 at respective score lines 13a. Each of the side wall panels 13 has a relatively small rectangular elongated transverse wing panel 17 at each of its ends, the wing panels being foldable perpendicularly on score lines 17a. At one end, which may be termed the upper end in the formed box, each of the end wing panels is provided with a locking ear or tab 19, bendable relative to the end wing on the score line 19a.

The cover panels 15, being relatively similar, each comprises a plurality of sub-panels one of which may be termed a marginal cover panel 21 in each cover panel. These marginal cover panels are substantially rectangular and elongated. They are next adjacent to the side wall panels 13 and have one longitudinal edge thereof connected to the side wall panels by the score lines 13a. These panels 21 may serve a double purpose, depending on the manner in which the box is used. When the box is employed for filling to the height of the side walls the entire cover panels 15 lie flatly across the top of the box in the plane of the upper edge of the side walls, in which event the marginal cover panels 21 are hinge-base panels for inspection panels to be described. But when the box is used for bulge-type packing, the box provides the additional elevation of an upward bulge generally indicated A at the top of the box. At each end of the marginal hinge panels there is a triangular truss panel 23, so designated because when the box is employed for a bulge pack, they truss the marginal hinge panel upwardly. The base of each truss panel is defined by the transverse score lines 23a which are perpendicular to the score line 13a, and the hypotenuse of the triangular truss panels comprise the diagonal score lines 23b. At the base ends of the triangle of each of the truss panels and connected transversely thereto at the score lines 23a, are cleat panels 25, so designated because they are received under a cleat member at the opposite ends of the box, as will be further described. These cleat panels are elongated and substantially rectangular and also have one end coinciding with and connected to the adjacent side wall panels at the score lines 13a so that they bend on the score line 13a simultaneously with the marginal panels 21.

In the formed box, spacer tabs 27 underlie the cleat panels, and are of substantially the same thickness as the paper board of which the cover panels are made. Though these spacer members may be a separate member, preferably they are an integral panel connected at the free elongated edge of each of the cleat panels and bendable at score lines 25a, being designated as spacer tabs or panels because they fold under the cleat panels to space the latter from the end walls of the formed box for purposes to be described.

At the longitudinal edge of each marginal hinge or bulge panel, being the edge thereof which is opposite to the connection of the side walls, said marginal hinge panels have connected thereto, by score lines 21a, elongated sight or inspection panels generally indicated 29, so designated because of their intended purpose. These inspection panels provide a planar portion of the cover which may be bent on score line 21a whereby such inspection panels may be opened to inspect the contents of the box, either when they lie in a flat plane or when at the elevated plane formed by the upward incline of the marginal hinge or bulge panels.

The inspection panels 29 are likewise subdivided into sub-panels. It will be noted that the connected score

lines 21a are of lesser length than the corresponding edge of the marginal hinge panels, providing an integral bendable connection for only the longitudinal central planar portions 31 of the inspection panels. Each of these central inspection panel portions 31 has at each of its opposite ends an inspection wing panel 33 bendably connected to the central panel portion of score lines 31a transversely of the central inspection panel, such end wing panels per se being separated from the marginal hinge panels by slots 35, whereby they are subject to independent bending on the score lines 31a.

The inspection wing panels have a transverse width substantially similar to the width of the central panel portion 31 though they may be slightly offset as at 37 as a minor convenience facilitating operation. The free end edge of each inspection wing panel is characterized by a shaping to facilitate employment of the inspection panel for its intended purpose of removability from and replacement under a cleat at the end of the box. Such characteristic shaping is exemplified herein by providing, at the end edges of each inspection wing, the stub fingers 39 preferably rounded at the outer end to avoid sharp angles, and a substantially arcuate edge 41 for the remainder of the edge at the end of the inspection wing, thereby providing an outward end edge of the wing which inclines from the base of the stub finger 39. For purposes to be described, each of these inspection wings has a score line 33a diagonally thereacross, which is to facilitate a temporary bending of the stub corner of the plane of said wing, its precise position being somewhat optional so long as it extends across the wing diagonally from the arcuate end edge 41 to the edge of slot 35.

It is here noted that when employed as a bulge-pack box the total transverse width of the two cover panels 15 may be made somewhat greater than the transverse width of the bottom panel 12, the additional width being desirable because of the upward bulge of the cover panels. When employed as a rectangular prism-type of box, but still maintaining the inspection feature of the described cover, the combined transverse width of the cover panels 15 may overlap slightly at their confronting edges when the box is closed as shown at B of Fig. 12, or the panels 29 may be slightly narrowed to equal the transverse width of the bottom panel 12.

The inner blank generally indicated 11 is an integral, elongated rectangular sheet of the paper board material and comprises an inner bottom panel 50 of a length and width substantially equal to the similar dimensions of the outer panel 12, since it lies substantially congruently thereover in the formed box. Adjacently spaced from its opposite ends, bottom panel 50 has lock slots 51 which are parallel with such ends of the panel.

Connected at each of its opposite ends at score lines 50a are relatively similar double end wall panels, herein described with relation to their position in the formed box, and comprising outer opposite end wall panels 53 and opposite inner end wall panels 55, said outer and inner wall panels being relatively spaced by relatively narrow spacer panels 57 defined by score lines 59 at each longitudinal side thereof. The outer end wall panels 53 each has substantially centrally of its plane a slit 61 through the panel providing finger grip walls 63, bendable on the score lines 63a, said finger grip wall having a locking tongue which, in the formed box, locks into a lock slot 65 which is centrally of the area of the inner end walls. Integral with the free terminal end edge of each inner end panel are locking tongues 67 relatively spaced to correspond with lock slots 51 and adapted to enter therewith in the formed box.

Since the formed box preferably may be provided with reinforced ends, rectangular supporting frames 69 are provided at each end of the box, to be enclosed between the relatively overlying end wall panels such as panels 53 and 55. Such supporting frames are best shown in Figs.

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8 and 11. The frames are rectangular and dimensioned to correspond with the dimensions of the inner end walls 55 since the frames are enclosed between the overlying panels of such end walls in the formed box. In the longitudinal face at the upper edge of the frames there are transverse recesses 70 adjacently spaced from each end of the upper longitudinal cross-bar, which as will be explained, receive therein the locking tabs 19.

A cleat member 71 may be employed for nailing transversely across each end portion of the cover panels to close the box and to provide spacing between superposed boxes to accommodate the elevation of the bulge of the cover in bulge-pack boxes. Various openings 72, preferably slotted, may be provided in the several panels for the well-known purpose of ventilation, and where such ventilating openings are positioned in overlying panels in the formed box, it seems manifest that such openings should register.

In forming a box from the blanks as described, the inner blank 11 is placed over the outer blank 10 at an angle of 90 degrees in a plane whereby the bottom panel 50 substantially congruently overlies in facial contact with the opposed face of the outer bottom panel 12, an intervening layer of adhesive 73 securely bonding such panels together to provide a strong reinforced bottom wall. The end frames 69 are then placed transversely within the inner ends of the box with the recesses 70 upwardly, whereupon the side wall panels 13 are bent upwardly on score lines 12a and simultaneously the wings of the side walls 17 are bent perpendicularly on score lines 17a and the locking ears or tabs 19 are bent inwardly at a normal angle on score lines 19a, such bending of panels providing a walled corner of the side wall into which the riser members of the frames seat snugly; and since the frame recesses 70 are adjacently spaced at the ends of the longitudinal cross-bars of the frame, the locking ears 19 are bent into these recesses and thereby lock the sidewalls at an upstanding position and against outward spread. The next succeeding step is to bend inwardly and lock the composite end panels 53, 55, 57. To accomplish this the outer end panels 53 are first bent upwardly upon the score lines 50a so that the plane of the outer end panels overlie the plane of the previously installed frames, whereupon the inner end wall panels 55 are bent inwardly and downwardly on the score lines 59 of spacer panels 57, said spacer panels overlying the upper longitudinal cross-bar of frame 69 and holding the locking ears 19 in the recesses of the frame. When the inner panels of the end walls 55 have thus been folded into the box, the locking tongues 67 may be inserted in the lock slots 51 to lock said end walls in position and enclose the frames therein.

The finger grip walls 63 may then be bent inwardly transversely of the plane of the frame and the double-layer end walls, and the locking tongues thereof may then be engaged in the lock slot 65 which not only reinforces the end walls in their central area, but also provide lifting surface for finger grip and a wall to prevent all the stress of lifting or pulling the boxes from being exerted on the single outer layer of the end wall material. At this point of fabrication, the box is ready for filling, the cover panels 15 not having been folded down over the box and therefore being vertical in the plane of the upstanding side walls 13.

Assuming the box to have been filled, the spacer panels or tabs 27 are folded inwardly on score lines 25a to underlie the cleat panels 25 at the opposite ends of the marginal hinge bulge panels, whereupon the composite cover panels 15 may be closed upon the end walls by bending upon the score lines 12a, the spacer tabs 27 intervening between the cover panels and the top of the end walls of the box and thus spacing the cleat panels 25 of the cover panels from the top of the end walls to the extent of the thickness of the spacer tabs 27.

If the box is being employed for what may be termed

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an ordinary pack which is not filled above the plane of the upper edge of the side and end walls as shown in Fig. 12, there may still be preserved the desirable feature of the facility and use of the sight or inspection panels for inspecting the contents, in which type of use the entire composite cover panel 15 may then lay flatly across the top of the box, and any suitable holding cleats placed transversely across the end portions of the cover panels overlying the cleat panels 25 and spacer panels 57 and the end walls of the box. The cleats are then nailed at their ends through the ends of the so-called marginal hinge panels, and specifically through the portions designated cleat panels 25 and the spacer tabs 27 thereunder, the underlying locking tabs 19, and into the recesses 70 of the cross-bar of the frame 69. In such use the same cleats as indicated 71 may be used, but the thickness of the cleats in such use is not critically material, so long as they have practical necessary strength, since in this manner of use the cleats need not serve the purpose of spacer members to compensate for any additional elevation at the top of the box, because the cover is not raised above the elevation of the upper edge of the sidewalls and end walls.

However, referring to the fact that the spacer tabs 27 are folded only under that portion of the ends of the cover panels which is represented by the cleat panels 25 of the marginal hinge panels, it follows that when the cleats 71 are nailed as aforesaid, there will be a slot or space 75 under each cleat between the opposed ends of the spacer tabs 27 at each end of the box. The free end edges of the wings 33 enter into this space 75 under the cleats and are frictionally held thereunder. In entering the end of the wings in the space 75 under the cleats, the stub fingers 39 are entered first. In doing this the adjacent corner portion of the wing panels is bent upon the diagonal score-lines 33a in order to insert the stub finger into the space under the edge of the cleats, whereupon the inclined edges of the arcs 41 of wings 33 engage the longitudinal edge of the cleats, at the space 75, and upon downward pressure centrally of the inspection panels the said inclined edges ride upon the edge of the cleats and snap the entire end edge portion of the wing panels 33 into the spaces 75 and underlying the cleats.

In order to inspect the contents, the inspection panels may be raised to pull the ends of the inspection panels free of the slots 75 whereupon the contents of the box are viewable, and after inspection the box may be closed again by inserting the wing ends under the cleats in the same manner as the above described closing operation.

The foregoing description of the closing operation is employed when the bulge-pack facility is not employed in filling the boxes. When the bulge-pack facility is utilized in filling the boxes, the panels are the same and the operation of closing is basically similar but, additional score lines are employed in the operation.

The upper line of the bulge-pack contents is illustrated in Fig. 6 at 71 from which it will be noted that the upper surface of the contents is elevated above the upper edge of the side walls and end walls of the box. Thus, if the cover panels 15 were in a straight unbendable plane they would, when bent inward on the score lines 13a extend along the dotted lines 77 of Fig. 6. But, by reason of the so-called composite inspection panels 29 being bendable on score lines 21a with relation to the so-called marginal hinge or bulge panels 21, the marginal hinge panels may incline upwardly to an elevation commensurate with the top level of the packed contents, and the inspection panels 29 being then bent on score lines 21a may extend in an elevated plane across the opening remaining between the opposed marginal hinge panels.

Were it not for additional scored bending lines in the cover panels 15 as will be further described, the upward incline of the marginal hinge panels would leave the opposite ends of the cover panels 21 and 29 projecting in spaced relation above the end walls, and further, there would be no means for maintaining the bulge panels in-

clined upwardly, other than the pressure thereof on the elevated top of the contents of the box, the prevention of which is one of the objects of the invention. Wherefore, there are provided the triangular truss panels 23 at the opposite ends of the marginal hinge panels, such truss panels being bendable at an incline downwardly on diagonal score lines 23b. At this point it is to be noted that the cleat panels 25 are at the base line of the triangular truss panels and are bendable on said base score lines 23a to a plane parallel and overlying the end walls of the box, and superficially contacting the spacer panels or tabs 27. Thus, a flat planar area is provided by the cleat panels overlying the end walls of the box for receiving thereupon the nailed cleats 71. When the cleat panels are nailed they furnish a rigid base line from which the triangular truss panels incline upwardly and support the marginal hinge panel at its elevated or bulged position. In such bulge-pack use of the box the elongated slots 75 underlying the cleats are open between the opposed ends of the spacer panels at the end of the box in the same manner as previously described. But as thus far described in the bulge-pack use of the box, the inspection panels 29, though bent at an angle on score lines 21a to parallel the plane of the bottom, are nevertheless elevated above the height of the end walls of the slots by the upward incline or the so-called bulge of the marginal hinge panels. Therefore, means are provided to lower the ends of the end wing portions 33 of the inspection panels so that the end edges thereof may be inserted into the slots 75 in the manner previously described. Since the slots 35 permit manipulation of the wing panels 33 independently of the marginal hinge or bulge panels, the score lines 31a provide for bending the wing panels 33 downwardly to the plane of the slots 75, whereupon the end edge portion comprising stub 39 and edge 41 may be selectively inserted into and removed from slot 75 in the same manner as previously described.

In employing the box as a bulge-pack box, the end cleats 71 should manifestly be of such thickness in height as to slightly more than compensate for the additional elevation of the cover panels into the upward incline of the marginal hinge or bulge-pack panels, in order that the cleats and end walls may support the load of superposed boxes without pressure on the planar central portion of the upwardly elevated or bulged cover, as shown in Fig. 5.

It has previously been stated that the spacer member 27 may be a separate member. Therefore, it will further be observed that the box may be employed as a bulge pack type of box without employing the feature or facility of the inspection cover. In such use, it would not be necessary to have the free end of the inspection wing panels readily removable and insertable under the cleats, nor for the cleats to be spaced above the end walls by a double thickness of the board material, such as is provided at space 75 formed by the thickness of the cleat panels 25 plus the thickness of the spacer members 27. In such use the spacer members 27 may, if desired, be eliminated entirely, in which event the cleats would be spaced from the top of the end walls solely by the single layer or thickness of the cleat panels 25, and the remaining panels of the bulge pack type of box employed in the same manner and with the same relationship as shown in Fig. 4, the cleats 71 being in direct tightly-secured pressure contact with the cleat panels 25 and the terminal free end portions of the wing panels 33, and being nailed therethrough.

Having thus described the invention what is claimed as new and patentable is:

1. A foldable paper box of relatively bendable panels comprising a bottom panel, oppositely disposed side walls, opposite end walls, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel next adjoining and bendable connected at one edge to a side wall, a spacer member

for underlying the ends of the marginal cover panels and spacing the ends of said panels from the upper face of the end walls whereby a cleat may be disposed across the top of each of the end walls and provide a space thereunder, an inspection cover panel bendably connected at the opposite edge of each of said marginal cover panels, inspection wing panels at the opposite ends of the inspection cover panels and independently bendable transversely of the inspection cover panels, whereby the free end edge of the inspection wing panels may slide under a cleat in the space provided by the spacer members.

2. A paper board box of the character described as set forth in claim 1, the spacer members being of a thickness substantially similar to the thickness of the cover panels.

3. A paper board box as set forth in claim 1 and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end wall panels.

4. A paper board box as set forth in claim 1, the bottom panel including a pair of overlying substantially congruent bottom panels securely connected relatively.

5. A paper board box of the character described as set forth in claim 1, and in which the side walls each has a wing at its opposite end bendable perpendicularly at the ends of the side walls, said end wings having locking tabs at one end foldable to parallel the bottom panels, and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end wall panels each support member having at its upper edge a transverse recess for receiving therein the locking tabs of the side wall wings.

6. A paper board box as set forth in claim 1, the inspection wing panels each having a lead corner portion provided with stub finger at a terminal corner for initially entering said space which overlies the end walls.

7. A box of relatively bendable paper board panels as set forth in claim 1, said box comprising a pair of box-forming substantially rectangular blank members each having a bottom panel, said bottom panels being adapted for overlying congruently, and in which the side walls are bendably connected to opposite edges of the bottom panel of one of said blank members, and in which the end walls are bendably connected to opposite edges of the bottom panel of the other of said blank members.

8. A box of relatively bendable paper board panels including bottom panel, oppositely disposed side walls, opposite end walls, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel next adjoining and bendably connected at one edge to a side wall, a cleat panel at each end of the marginal cover panels, said cleat panels overlying the end walls of the box when the cover panels are bent to close the box, a truss panel at each opposite end portion of the marginal cover panels, a spacer member for underlying the cleat panels at each end of the box spacing the cleat panels from the upper face of the end walls whereby a cleat may be nailed across the top of the end walls and provide a space thereunder, an inspection cover panel bendably connected at the opposite edge of said marginal cover panels, inspection wing panels at the opposite ends of the inspection cover panels and independently bendable transversely of the inspection cover panels whereby the free end edge of the inspection wing panels may slide under a cleat in the space provided by the spacer members.

9. A foldable paper box of relatively bendable panels as set forth in claim 8, the truss panels being a triangular portion adjacent the ends of the marginal cover panels, and the cleat panels being at the base of the triangular truss panels.

10. A paper board box of the character described as set forth in claim 8, the spacer members being of a thickness substantially similar to the thickness of the cover panels.

11. A box of relatively bendable paper board panels as set forth in claim 8, the bottom panel including a pair of overlying substantially congruent bottom panel members securely connected relatively.

12. A paper board box as set forth in claim 8, and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end wall panels.

13. A box of relatively bendable paper board panels as set forth in claim 8, and in which the side walls each have a wing at opposite ends thereof bendable perpendicularly at the ends of the side walls, said end wings having locking tabs at one end foldable to parallel the bottom, and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end walls each support member having at its upper edge a transverse recess for receiving therein the locking tabs of the side wall wings.

14. A paper board box of the character described as set forth in claim 8, the inspection wing panels each having a lead corner portion provided with a stub finger at a terminal corner for initially entering said space which overlies the end walls.

15. A box of relatively bendable paper board panels as set forth in claim 8, said box comprising a pair of box forming substantially rectangular blank members each having a bottom panel, said bottom panels being adapted for overlying congruently, and in which the side walls are bendably connected to opposite edges of the bottom panel of one of said blank members, and the end walls are bendably connected to opposite edges of the bottom panel of the other of said blank members.

16. A box of relatively bendable paper board panels including a bottom panel, oppositely disposed side walls, opposite end walls, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel portion next adjoining and bendably connected at one edge to a side wall, a cleat panel at each end of the marginal cover panel, said cleat panels overlying the end walls of the box when the cover panels are bent to close the box, a triangular truss panel at each opposite end portion of the marginal cover panels, the truss panels being between the marginal cover panels and the cleat panels whereby the marginal cover panels may be maintained at an upward-inward incline from the plane of the top of the side walls and the end walls, said marginal cover panels having at the opposite longitudinal edge thereof another integral cover panel portion which has at its opposite ends bendably connected wings separated from the marginal cover panel portion by a slit, said cover wing portions being bendable downwardly so that the free ends thereof contact the top of the end wall of the box, whereby a cleat may be nailed across the top of the end walls and secure the cleat panels and the terminal ends of the said cover wing panels securely to the top face of the end walls of the box.

17. A box of relatively bendable paper board panels as set forth in claim 16, the bottom panel including a pair of overlying substantially congruent bottom panel members securely connected relatively.

18. A paper board box as set forth in claim 16 and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end wall panels.

19. A box of relatively bendable paper board panels as set forth in claim 16 and in which the side walls each have a wing at opposite ends thereof bendable perpendicularly at the end of the side walls, said end wings having locking tabs at one end thereof foldable to parallel the bottom, and in which the opposite end walls each comprise spaced inner and outer panels having frame end support members between said end wall panels each support mem-

ber having at its upper edge a transverse recess for receiving therein the locking tabs of the side wall wings.

20. A box of relatively bendable paper board panels as set forth in claim 16, said box comprising a pair of box-forming substantially rectangular blank members each having a bottom panel, said bottom panels being adapted for overlying congruently, and in which the side walls are bendably connected to opposite edges of the bottom panel of one of said blank members and the end walls are bendably connected to opposite edges of the bottom panel of the other of said blank members.

21. A foldable paper box comprising a bottom panel, oppositely disposed side walls, opposite end walls each formed to provide a slot adjacent the upper edge thereof, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel next adjoining and bendably connected at one edge to a side wall, a truss panel at each opposite end portion of the marginal cover panel, means securing said truss panel to the adjacent side wall, an inspection cover panel bendably connected at the opposite edge of each of said marginal cover panels and inspection wing panels at the opposite ends of the inspection cover panels independently bendable transversely of the inspection cover panels, whereby the free end edge of the inspection wing panels may slide into the respective end wall slots.

22. A foldable paper box of relatively bendable panels comprising a bottom panel, oppositely disposed side walls, opposite end walls, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel next adjoining and bendably connected at one edge to a side wall, the ends of said marginal cover panels overlying the upper face of the end walls, a spacer member for underlying the ends of the marginal cover panels and spacing the ends of said panels from the upper face of the end walls whereby means may be disposed across the top of each of the end walls and provide a slot therethrough, an inspection cover panel bendably connected at the opposite edge of each of said marginal cover panels, inspection wing panels at the opposite ends of the inspection cover panels and independently bendable transversely of the inspection cover panels, whereby the free end edge of the inspection wing panels may slide into the respective end wall slots.

23. A foldable paper box comprising a bottom panel, oppositely disposed side walls, opposite end walls, a cover panel bendably connected to each of the side walls, said cover panels including a marginal cover panel next adjoining and bendably connected at one edge to a side wall, the ends of said marginal cover panels overlying the upper face of the end walls, cleat means securing said ends of the marginal cover panels to the end walls, said cleat means disposed across the top of each of the end walls whereby to provide a slot therethrough, an inspection cover panel bendably connected at the opposite edge of each of said marginal cover panels, and inspection wing panels at the opposite ends of the inspection cover panels independently bendable transversely of the inspection cover panels, whereby the free end edge of the inspection wing panels may slide into the respective end wall slots.

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