

May 23, 1939.

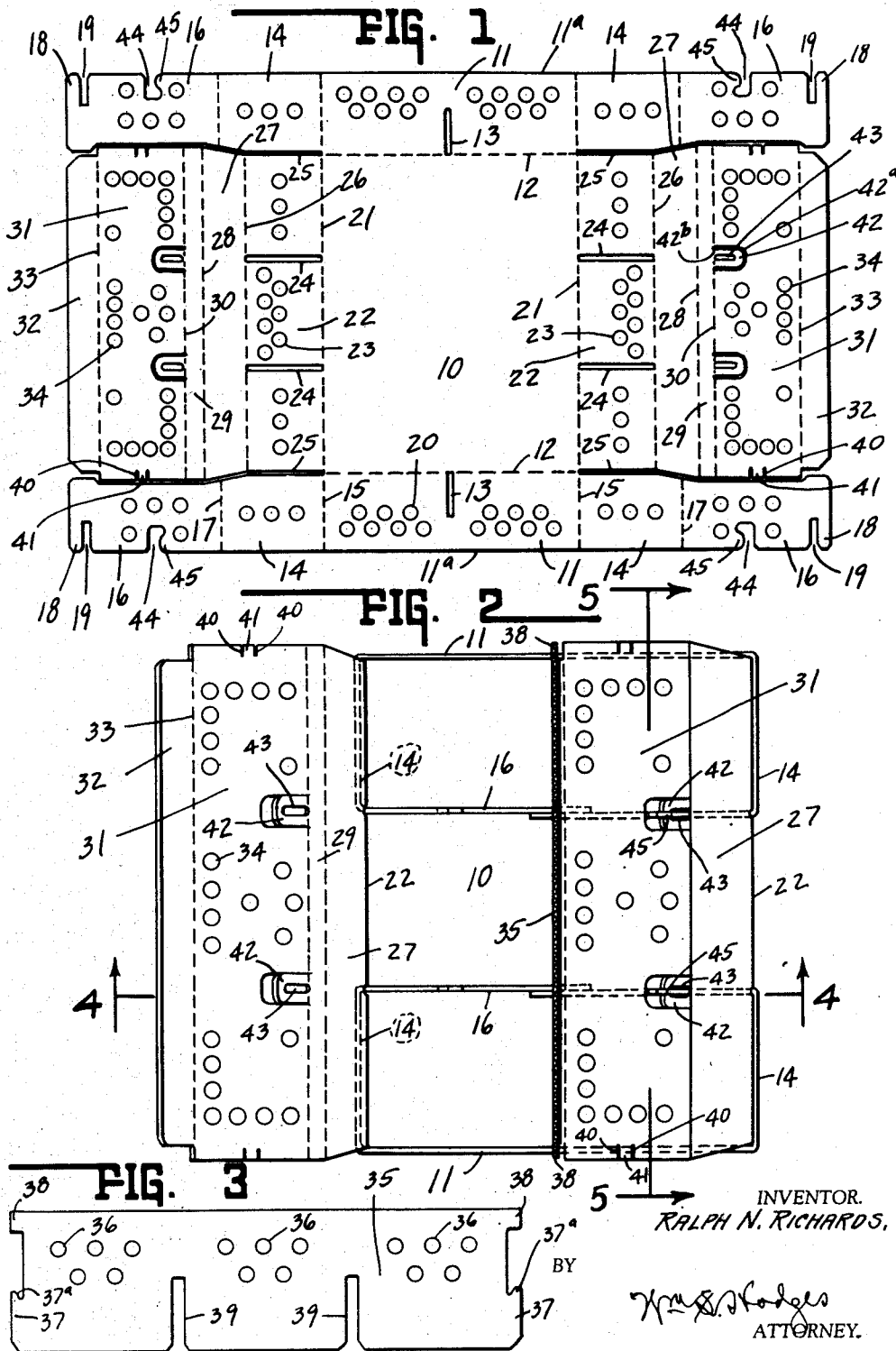
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2,159,451

CHICK BOX

Filed July 9, 1937

2 Sheets-Sheet 1



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CHICK BOX

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2 Sheets-Sheet 2

FIG. 4

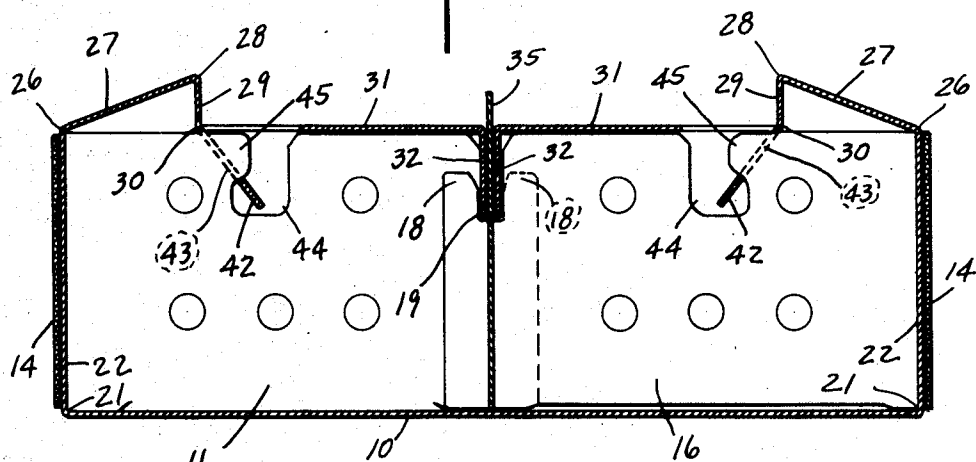
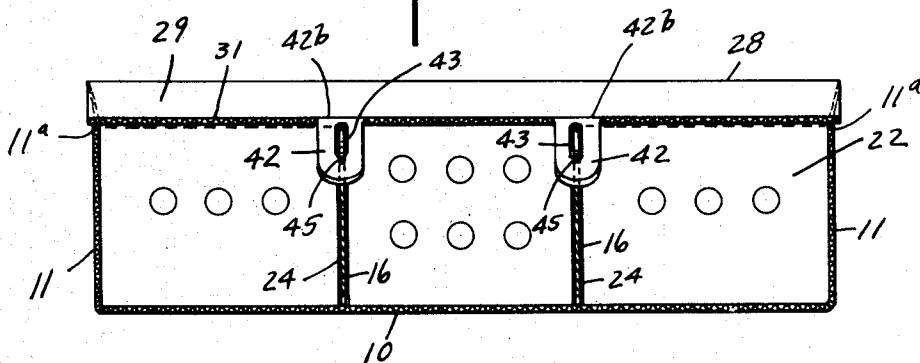


FIG. 5



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2,159,451

CHICK BOX

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12 Claims. (Cl. 229-27)

This invention relates to a chick box of paper board character.

The chief object of the invention is to provide a chick box having a plurality of compartments therein and in its simplest form being formed of a single blank and further being adapted to support a superposed box in relatively spaced relation to the cover portion of the supporting box to provide top ventilation to the compartments in the supporting box.

Another object of the invention is to provide a chick box of the aforesaid general character, wherein the cover portion is divided providing individual access to certain of the compartments without necessitating access to be had to other compartments, said divisible cover portions being yieldingly locked in closed position but permitting forcible disengagement for cover opening.

The chief feature of the invention consists in the formation of a chick box whereby the foregoing objects are accomplished.

Other features of the invention will be more fully pointed out hereinafter in the specific description of the chick box embodying the invention.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

In the drawings, Fig. 1 is a top plan view on a reduced scale, of the main blank from which the chick box embodying the invention is set up.

Fig. 2 is a top plan view of the invention, one of the half covers being shown in the open position.

Fig. 3 is a side elevational view of an interlocking partition which is utilized with the blank shown in Fig. 1 to form the chick box shown in Fig. 2.

Fig. 4 is a vertical sectional view on an enlarged scale taken on line 4-4 of Fig. 2 and in the direction of the arrows, both covers being shown in the closed and locked position.

Fig. 5 is a sectional view taken on line 5-5 of Fig. 2 and in the direction of the arrows and on a slightly smaller scale than Fig. 4, and at right angles to the section shown in Fig. 4.

In the drawings 10 indicates a box bottom, 11 a side wall hingedly connected thereto by the score or crease line connection 12 and this construction is duplicated upon the opposite side of the bottom. Herein each side wall 11 includes a vertical slot 13 position midway between the ends of the side wall and extending from the bottom toward the top edge of the side wall but terminating appreciably short thereof.

Each side wall includes an extension 14 hingedly connected to a side edge of the side wall by a score or crease line as at 15. The extension 14 includes a free end portion 16 hingedly or scoringly connected as at 17 to the opposite side edge of portion 14.

The immediate free end of portion 16 includes a tongue 18 and an adjacent slot 19. All of the portions hereinbefore mentioned, except the bottom, are provided with sections die cut or partially separated portions 20, as is well understood in the chick box art, more especially when applied to a box formed of double lined corrugated board.

Integral with the bottom at each opposite side edge and between the two first mentioned sides and connected to the bottom by the scored or creased line 21, is an end wall 22 provided with similar semi-perforated portions 23 and a pair of vertical slots 24 substantially the full depth or height of the end wall, the distance that each slot 24 is positioned from the edge 25 of the end wall substantially being equal to the width of the portion 14 before mentioned.

Integral with the top edge of the end wall and hingedly connected thereto as at 26 is a trapezoidal outlined cover forming portion 27 to which in turn as at 28, is connected a rectangular outlined portion 29 to which in turn is connected as at 30 another cover forming portion 31. Portions 29 and 30—see Fig. 1—are of a greater length than the length of the end portions to which the same are connected.

Each portion 31 has a flap extension 32 connected thereto as at 33 and the flap extension, as shown clearly in Figs. 1 and 2, is of less length than the length of the cover portion 31 and the end portion 22 so that the flap portion 32 may nest between the two side walls 11, as shown clearly in Fig. 2, and may, if desired, frictionally lock against the same. The cover portion 31 is also provided with semi-perforated die cut portions 34 which are readily removable.

Reference will now be had to Fig. 3 wherein 35 indicates a partition member provided with semi-perforated die cut portions 36 readily removable, as is well understood in the chick box art. The partition includes at each end a lower tongue portion 37 having a reentrant edge 37^a and an upper tongue portion 38. The partition is also provided with slots 39, the spacing between the slots 39 being substantially that of the spacing between the slots 24 in each end wall but the slots herein are shown as of double the width of the slots 24.

Reference will now be had more especially to Figs. 2, 4 and 5. In assembling the box, the two end walls are turned at right angles to the bottom into substantial parallelism, then the two side walls are similarly turned at right angles to the bottom and into substantial parallelism, then each extension 14 and 16 is turned angularly of the supporting wall along the line 15 and then has its two portions positioned angularly of each other, the vertex being coincident with the fold line 17. The extension portion 16 is then inserted in the adjacent slot 24 and passed entirely through the same until the portion 14 lies parallel to and overlaps the adjacent portion of the end wall 22. This forms a rectangular or square box depending upon the dimensions utilized. The partition 35 is then seated with its tongue 38 overlying the top edge 11a of the side wall and with its tongue portion 37 seated in and projecting through the slot 13. This holds down the partition against upward movement.

The double width slots 39 accommodate the two adjacent partition forming extension portions 16 which lie substantially in abutting parallel relation and the notch 19 of each extension portion interlocks with the body portion of the partition. This prevents longitudinal withdrawal or escapement of the partition forming portion of the extension of the side wall from the box and its subsequent outward opening in the blank formation or a formation other than that of a container.

Herein the designations "side" and "end" walls are purely arbitrary and their specific use has been intended merely to facilitate an understanding of the invention.

The box thus described is in substantial open position. Each cover portion is then turned inwardly and downwardly toward the other cover portion and each flap extension 32 is directed inwardly and downwardly immediately adjacent the partition 35. In this position the cover portion 31 bears on the upper edge 11a of the side walls 11. The width of the slot 19 is such that it not only accommodates the partition but also the two partition separated end flaps, these seating therein, as shown clearly in Fig. 4.

When thus associated together, it will be observed the partition 35 projects above the plane common to the cover portions 31. The portion 29 of the cover extends upwardly and substantially vertically, although it may be slightly inclined if desired. The cover portion 27 extends upwardly and at an angle forming the ridge portion 28 with portion 29, the two parallel ridge portions being coextensive with the supporting side and of substantially equal height above the plane common to the portions 31 and thus are adapted to support a superposed container such that there is a space between the bottom of the superposed container and the top portions 31.

It will be noted, as indicated at 34, the top may be of perforated character to provide for top ventilation to the interior of the container. It will also be noted—see Fig. 1—more especially that the end wall semi-perforations 23 register with the similar semi-perforations 20 in the portions 14 and also it will be observed the partition forming portions of the extension 14 include semi-perforations 20 which together with the semi-perforations 36 in the partition 35 provide air communication from compartment to compartment. Here also the side walls are similarly semi-perforated so that air circulation

therethrough may be obtained. The amount of circulation obtained is, of course, determinable by the number of semi-perforated portions which are removed by merely punching them from the main body of the board by a finger.

As shown clearly in Figs. 1 and 2, the portions 31 of the cover include relatively closely spaced slits 40. These slits define a portion 41 of the cover that overhangs the side wall 11 and a string or cord passed about the container would be located in this area by the depression of the portion 41 when the string is drawn taut and secured, in enveloping relation. The foregoing constitutes one of the simplest forms of the invention.

When a positive cover lock is desired and it is not desired to utilize a string or cord tie, these slits may be omitted and the following locking arrangement provided. Of course, if both types of cover locking are desired, the same may be utilized, since the slits 40 are readily formed in the formation of the blank by a slight modification of the die used in the blank formation. Also the positive interlock mentioned may be similarly formed at the time the partition was formed and the blank is formed. This interlock is a tongue and slot connection between the cover and the partition means. Preferably it is associated with the extension forming partition means and preferably the tongue and slot connection is of dual character, that is, the partition includes a tongue and a slot and the cover includes a tongue provided with a slot, the tongue of the cover seating in the slot of the partition and the tongue partition seating in the slot of the cover. Herein four such dual interlocks are illustrated—see more especially Fig. 2. Figs. 3 and 4 illustrate the same in slightly greater detail.

In these figures, 42 indicates a tongue formed in the cover by the die cut portion 42a. The tongue is anchored as indicated at 42b. This tongue includes a slot 43. The partition forming portion 16 includes the slot or notch 44, approximately L-shaped in outline, forming the adjacent tongue portion 45. As shown clearly in Figs. 4 and 5, the tongue 42 is seated in the notch or slot 44 and the tongue 45 is seated in the slot 43. This serves to positively lock the cover to the partition. With this type of lock structure, the cover is held against accidental upward displacement.

When it is desired to open the cover, a medianly positioned semi-die cut portion 34 therein is removed, the index or middle finger inserted therein and the cover elevated, tilting, as it were initially, about the hinge connection 30 as a pivot. In this initial upward movement, the cover is finally freed from the flap engaging the upward extending portion or exposed portion of the partition 35 and the side walls and when that occurs the natural spring or tension between the two angularly positioned portions 27 and 29 immediately project the latter toward the partition which automatically releases the cover tongues from the partition tongues so the half cover may be thereupon opened upwardly and outwardly providing complete access to the three compartments in the exposed half of the container.

While the invention has been described as embodying six compartments, it will be understood that by providing a single median slot in each end wall and elongating the portions 14 so each in length is substantially half the length of the end

5 wall, that a four compartment chick box will be
 obtained and in this instance naturally, partition
 35 will contain but a single median slot 39, and
 this will be of substantially double the width of
 the slot shown. Also the change required in the
 cover structure when a positive interlock is de-
 sired, will be such that the tongue 42 will be
 slightly wider than it is shown in the present
 illustration and the slot 43 will be substantially
 10 double the width of that shown herein so as to
 accommodate the two parallel abutting tongue
 portions 45 of the adjacent partition means.

While the invention has been described in great
 detail in the foregoing description, the same as
 15 well as the detailed illustration is to be considered
 as illustrative and not restrictive in character.
 Various modifications hereinbefore mentioned or
 illustrated as well as others which will readily
 suggest themselves to persons skilled in this art,
 20 are all considered to be within the broad scope
 of the invention, reference being had to the ap-
 pended claims.

The invention claimed is:

1. In a chick box, the combination of a bottom,
 25 a pair of side walls, a pair of end walls, one pair
 of said walls being vertically slotted intermediate
 its ends, extensions on each end of the other pair
 of walls, exteriorly lapping the slotted walls and
 having their end portions seated in the slots, the
 30 slots in the opposite walls being substantially
 aligned, the slot seated ends of extensions ex-
 tending toward the opposite wall and overlapping,
 and partition means associated at the ends with
 the extension supporting walls and having a co-
 operative interlocking connection with the box
 35 enclosed free ends of the extensions.

2. In a chick box the combination of a bottom,
 a pair of side walls, a pair of end walls, one pair
 of said walls being vertically slotted intermediate
 40 its ends, extensions on each end of the other pair
 of walls, exteriorly lapping the slotted walls and
 having their end portions seated in the slots, the
 slot seated ends of extensions extending toward
 the opposite wall, and partition means associated
 45 at the ends with the extension supporting walls
 and having a cooperative interlocking connection
 with the box enclosed free ends of the ex-
 tensions.

3. In a chick box the combination of a bottom,
 50 a pair of side walls, a pair of end walls, one pair
 of said walls being vertically slotted intermediate
 its ends, extensions on each end of the other pair
 of walls exteriorly lapping the slotted walls and
 having their end portions seated in the slots,
 55 the slots in the opposite walls being substantially
 aligned, the slot seated ends of extensions ex-
 tending toward the opposite wall, and partition
 means associated at the ends with the extension
 supporting walls and having a cooperative inter-
 locking connection with the box enclosed free
 60 ends of the extensions.

4. A device as defined by claim 2, characterized
 by the partition means including a pair of spaced
 slots, the vertically slotted walls having similarly
 spaced slots, and the free ends of the extensions
 65 on each wall interlocking in the same partition
 slot.

5. In a one-piece chick box the combination

of a bottom, a pair of side walls, a pair of end
 walls, half covers integral with the upper edge
 of one pair of walls, and a flap on each half cover
 for friction locking of the half covers in closed
 position, each half cover at each side edge over-
 5 lapping the intermediate wall, each half cover
 intermediate its flap and supporting wall con-
 nections including an upwardly offset portion
 fully coextensive with the connected wall, said
 half covers being arranged for top ventilation of
 10 the box.

6. A box as defined by claim 5, characterized
 by each offset portion including a portion in in-
 verted channel formation.

7. A box as defined by claim 5, characterized
 15 by each offset portion including a portion in in-
 verted channel formation, and meeting in a
 superposed box supporting ridge.

8. In a one-piece chick box the combination
 of a bottom, a pair of side walls, a pair of end
 20 walls, half covers integral with the upper edge
 of one pair of walls, each half cover at each side
 edge overlapping the intermediate wall, each half
 cover including an upwardly offset portion fully
 coextensive with the connected wall, said half
 25 covers being arranged for top ventilation of the
 box, partition means extending parallel to the
 intermediate walls, and a tongue and slot con-
 nection between each half cover and the partition
 means for cover locking. 30

9. A box as defined by claim 8, characterized
 by each tongue and slot connection being of
 multiple character, that is including a plurality of
 tongues and a corresponding number of slots, the
 35 tongues and slots being interrelated and juxta-
 positioned for simultaneous locking and release.

10. A box as defined by claim 8, characterized
 by each offset portion including the portion in in-
 verted channel formation.

11. A box as defined by claim 8, characterized
 40 by each offset portion including the portion in
 inverted channel formation, and meeting in a
 superposed box supporting ridge.

12. In a chick box, the combination of a bottom,
 a pair of side walls, a pair of end walls, one
 45 pair of said walls being vertically slotted inter-
 mediate its ends, extensions on each end of the
 other and intermediate pair of walls, lapping the
 slotted walls and having their end portions seated
 in the slots, the slot seated ends of the extensions
 50 extending toward the opposite wall, partition
 means operatively secured at the ends to the
 intermediate walls and having a cooperative inter-
 locking connection with the free ends of the ex-
 tensions, half covers, each integral with the upper
 55 edge of an intermediate wall, a flap at the op-
 posite end of each half cover adapted to fric-
 tionally engage the adjacent face of the partition
 means, each half cover having a portion at the
 side edges bearable upon and projecting beyond
 the intermediate walls, each half cover inter-
 mediate its flap and supporting wall connections
 including an upwardly offset portion substantially
 coextensive with the connected wall, said half
 60 covers being arranged for top ventilation of the
 box. 65

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