

Nov. 2, 1943.

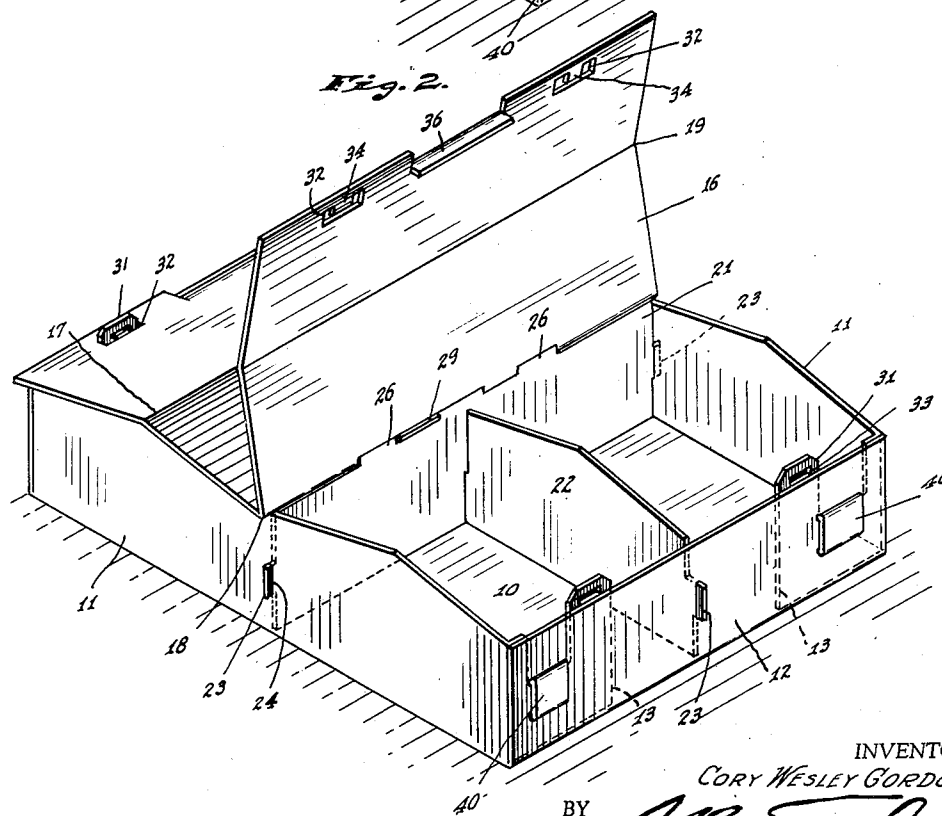
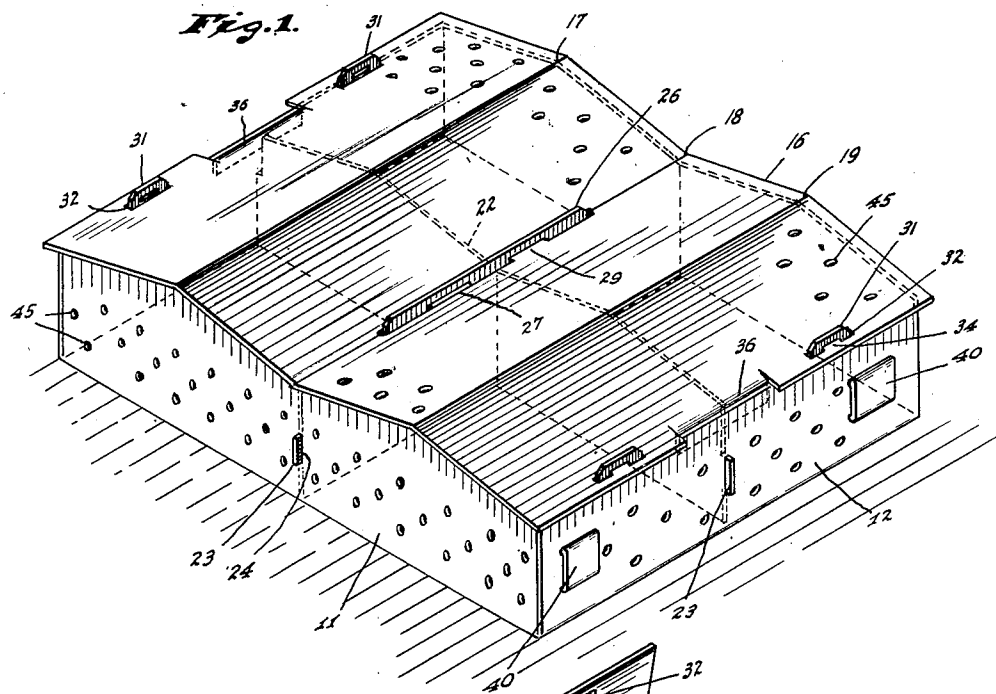
C. W. GORDON

2,333,244

BOX

Filed Aug. 6, 1941

2 Sheets-Sheet 1



INVENTOR.

CORY WESLEY GORDON,

BY

[Signature]

ATTORNEYS.

Nov. 2, 1943.

C. W. GORDON

2,333,244

BOX

Filed Aug. 6, 1941

2 Sheets-Sheet 2

Fig. 3.

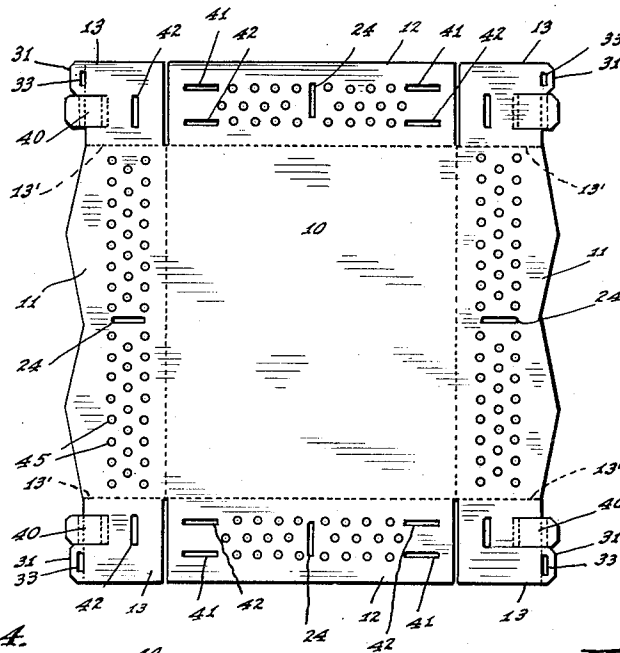


Fig. 4.

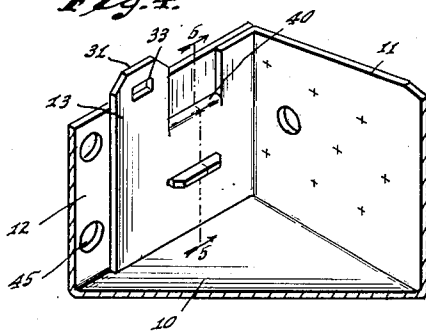


Fig. 5.

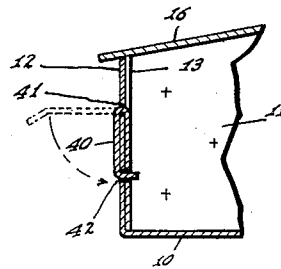
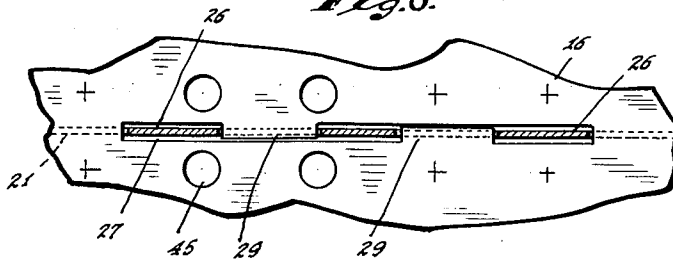


Fig. 6.



INVENTOR.
CORY WESLEY GORDON,
BY *Alley*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,333,244

BOX

Cory Wesley Gordon, Terre Haute, Ind., assignor
to The Wabash Fibre Box Company, Terre
Haute, Ind., a corporation of Indiana

Application August 6, 1941, Serial No. 405,577

10 Claims. (Cl. 229—6)

My invention relates to chick boxes made of corrugated board or other foldable material. It is the object of my invention to provide a chick box of novel and attractive appearance and of a shape such that air-flow through the ventilating openings customarily provided in such a box can not be completely shut off by a superposed box. Another object of my invention is to produce a box with a cover so arranged that only one-half the box need be opened at a time. Still another object of my invention is to produce a box which can be shipped or stored flat and erected without the need for any staples, glue, or other similar means.

In carrying out my invention I form the box body of a single blank of corrugated board or similar material, the blank including side and end flaps which may be folded into a vertical position to provide side and end walls for the box. In the preferred box, the side walls are provided with extension tabs folded inwardly to extend along the end wall and provided with tongues which can be interlaced through slots in the end wall to hold the box in erected condition. The outer edge of each of the flaps which form the side walls is not straight, but instead is ziz-zag in conformation so that, when the flaps are folded into vertical position the edge will be in the form of a shallow letter M. For the box, I provide a cover scored or otherwise weakened along transverse lines to permit it to conform to the shape of the upper edges of the side walls. At its center, the box-cover is provided with an elongated transversely extending slot adapted to receive an ear which projects upward from a central transverse partition in the box. To retain the cover in place, this ear is slotted for the reception of tongues projecting laterally from the side edges of the slot in the cover.

The accompanying drawings illustrate my invention: Fig. 1 is an isometric view of the complete box with the cover in closed position; Fig. 2 is a view similar to Fig. 1 but showing one-half of the cover raised to give access to one-half of the box; Fig. 3 is a plan view of the blank from which the body of the box is formed; Fig. 4 is an isometric view showing the interior of the box at one corner thereof; Fig. 5 is a vertical section on the line 5—5 of Fig. 4; and Fig. 6 is a fragmental plan view of the central portion of the box with parts of the transverse partition thereof broken away.

As will be clear from Fig. 3, the blank from which the body of the box is made comprises a rectangular central portion 10 having side flaps

11 and end flaps 12 the inner edges of which are defined by score lines permitting the flaps to be folded into a vertical position. At each of its ends, each of the side flaps 11 is provided with extension tabs 13 separated from the flap as by a score-line 13' and adapted to be folded inwardly to lie against the inner face of the adjacent end wall 12 when the box is erected, as is clear from Fig. 4. The side edges of the flaps 11 are given a ziz-zag conformation so that, when the sides are erected the upper edges will be in the form of a shallow letter M, as is clear from Figs. 1 and 2.

I provide for the box a cover 16, which may be a rectangular blank of corrugated board or other foldable material weakened along the transverse lines 17, 18, and 19 of Fig. 1 so that it may conform to the upper edges of the side walls 11. When the cover is in place, the box has the shape of a rectangular building provided with a double-gable or M-roof.

The interior of the erected box is divided into compartments by intersecting partitions 21 and 22, the former extending transversely of the box at the center thereof and the latter dividing the box longitudinally. In order to support the cover between its side edges, the upper edge of the longitudinal partition 22 may conform in shape to the side walls 11. To hold the partitions 21 and 22 in place, they may be provided at each of their ends with intermediately located, outwardly projecting tongues 23 received in slots 24 in the side and end walls of the box.

The transverse partition 21 may be employed to retain the cover 16 in association with the box. To this end, the partition is provided with an upwardly projecting elongated ear 26 which extends through an elongated slot 27 in the cover, as will be clear from Figs. 1 and 6. The ear 26 is provided in the plane of the adjacent portion of the cover 16 with one or more slots each adapted to receive a tongue 29 projecting inwardly of the slot 27 from one of the side edges thereof. Desirably, there are two of the tongues 29, and they project from opposite edges of the slot 27 as will be clear from Fig. 6. When the box is erected with the partitions 21 and 22 in place, the cover is positioned with the slot 27 above the ear 26, and the cover is forced downwardly until it is seated on the upper edges of the side and end walls and the partitions. As the ear 26 enters the slot 27, the tongues 29 are distorted; but when the cover is seated on the box, the tongues 29 resume their normal position by entering the slots in the ear 27, thus holding the cover in association with the box.

As will be clear from Fig. 2, either half of the cover 16 may be elevated to expose the compartments at either end of the box. To retain each half of the cover in closed position, I may provide at each end of the box, desirably upon the tabs 13, upwardly projecting ears 31 adapted to extend through slots 32 in the cover 16. Each of the ears 31 is provided with a horizontally extending slot 33 adapted to receive a tongue 34 projecting into the associated slot 32 from one side thereof. When the edge of the cover 16 is forced downwardly, the ears 31 enter the slots 32, displacing the tongues 34; but when the cover is completely closed the tongues 34 enter the slots 33 to hold the cover-edge in place. In order to promote firm engagement of the tongues 34 in the slots 33, each end edge of the cover 16 may be provided with a pair of slots defining a centrally located tongue 36 which is foldable downwardly to engage the inner surface of the end wall 12 of the box, as is clear from Fig. 1. Each end of the partition 22 may be relieved above the associated tongue 23 to provide for the reception of the tongue 36 on the cover.

Desirably, although not necessarily, the box is arranged to be held in erected condition without the aid of staples or glue. For this purpose, each of the tabs 13 is provided in its upper edge with a pair of downwardly extending cuts defining the sides of a tongue 40. At the base of this tongue, the adjacent end of the end wall 12 is provided with a slot 41; and below the slot 41, the tab 13 and the adjacent end of the end wall 12 are provided with aligned slots 42. Each tongue 40 is provided with transverse score lines or otherwise weakened so that it can be folded to extend outwardly through the slot 41 and inwardly through the slots 42 as indicated in Figs. 4 and 5. To facilitate insertion of the end of each tongue 40 through its associated slot, the corners of the tongues may be beveled off as shown in Figs. 3 and 4.

To erect the preferred form of box, the side and end flaps 11 and 12 are folded vertically, the tabs 13 being folded along the score lines 13' which separate them from the side wall 11 so that they may lie against the inner face of the adjacent end wall 12. By bending each tab 13 away from the adjacent end wall and by folding the tongues 30 downwardly, the tongues 40 may be passed through the adjacent slot 41, into the position indicated in dotted lines in Fig. 5. Upon inserting the outer end of the tongues 40 through the openings 42 into the full-line position shown in Fig. 5, each tab 13 is firmly secured to the adjacent end of the end wall 12, and the box held in erected condition. The partitions may be inserted as the side and end walls 11 and 12 are folded upwardly; and, when the cover 26 is in place, the reception of the tongues 31 within the slots 32 helps to stiffen the box.

The cover 26 and the side and end walls 11 and 12 of the box are provided with a multiplicity of ventilation openings 45 for the admission of air. Because of the M-shape of the cover, a superposed box will be supported on the ridges at the score lines 17 and 19 and will not prevent access of air to the ventilation openings 45 in the cover. The tongues 40 at the ends of the box and the tongues 23 at the sides and ends of the box tend to prevent an adjacent box or other object from preventing the passage of air through the openings in the side and end walls. To further this purpose, the cover 26 may project well beyond the side and end walls of the box.

In order to prevent injury to the ear 28 and tongues 31, they should preferably terminate below the plane through the ridges 17 and 19 of the cover.

I claim as my invention:

1. A chick box, comprising a box-body having a rectangular bottom and side and end walls, the upper edges of said side walls having the form of a letter M, and a cover for said box, said cover being provided with a multiplicity of ventilation openings and being bent on three spaced transverse lines to conform in vertical section to the upper edges of said side walls, some of said ventilation openings being located between each end of said cover and the adjacent one of said transverse lines.

2. A chick box as set forth in claim 1 with the addition of an intermediate partition disposed in said box-body parallel to said side walls, the upper edge of said partition conforming to the upper edges of said side walls to provide intermediate support for said cover.

3. A chick box as set forth in claim 1 with the addition of a central transverse partition secured in said box-body parallel to said end walls, said cover being formed of foldable material and secured to said transverse partition, said cover being provided with a transverse score line adjacent said partition whereby either half of the cover may be swung upwardly about said score line while leaving the cover secured to the partition.

4. In a chick box having a box-body comprising a bottom and side and end walls, a centrally located transverse partition secured in said box-body, and a cover for said box-body, said cover being formed of foldable material and secured to said transverse partition, said cover being provided with a transverse score line in the plane of said partition whereby either half of the cover may be swung upwardly about said score line while leaving the cover secured to the partition, said cover being provided with a slot at said score line, said partition having an ear projecting upwardly through said slot and being provided in the plane of the adjacent portion of the cover with an opening, said cover having a tongue projecting into said slot from one side thereof in position to enter the opening in said ear when the cover is in place on the box-body.

5. In a chick box having a box-body comprising a bottom and side and end walls, a centrally located transverse partition secured in said box-body, and a cover for said box-body, said cover being formed of foldable material and secured to said transverse partition, said cover being provided with a transverse score line in the plane of said partition whereby either half of the cover may be swung upwardly about said score line while leaving the cover secured to the partition, said cover being provided with a slot at said score line, said partition having an ear projecting upwardly through said slot and being provided in the plane of the adjacent portion of the cover with a plurality of openings, said cover having a plurality of tongues projecting into said slot from opposite sides thereof in position to enter respectively the openings in said ear when the cover is in place on the box-body.

6. A box, comprising a box-body of foldable material and having a rectangular bottom, side and end walls integral with said bottom and meeting in pairs at corners of the box-body, one of the walls meeting at each such corner being provided with a flap overlying the inner face of the other

wall, said flap being provided with two cuts extending downwardly from its upper edge and defining between them a foldable tongue, said other wall being provided with two vertically spaced tongue-receiving openings the upper one of which is adjacent the base of said tongue, said flap being provided with a tongue-receiving opening alined with the lower opening in said other wall, and said tongue being folded to extend outwardly through the upper opening in said other wall and inwardly through said alined openings.

7. The invention set forth in claim 6 with the addition of a cover for said box-body, said cover and said flaps having co-operating provisions for releasably holding the cover in place.

8. The invention set forth in claim 6 with the addition of a cover for said box-body, the flaps at each corner of the box-body having an ear which projects upwardly, said cover being provided with slots for the respective reception of said ears, each of said ears having an opening in the plane of the

cover, and said cover having a tongue projecting into each of said slots from a side thereof in position to enter the opening in the associated ear when the cover is in place.

9. In a box, a box-body having a rectangular bottom and side and end walls, a rectangular cover for said box-body provided near its corners with slots, said box-body having ears projecting upwardly through said slots when the cover is in place, each of said ears having an opening in the plane of the cover, and said cover having a tongue projecting into each of said slots from a side thereof in position to enter the opening in the associated ear when the cover is in place.

10. The invention set forth in claim 9 with the addition that said cover is formed with intermediate portions disposed higher than said ears to support a superposed box out of contact with said ears.

CORY WESLEY GORDON.