

May 8, 1928.

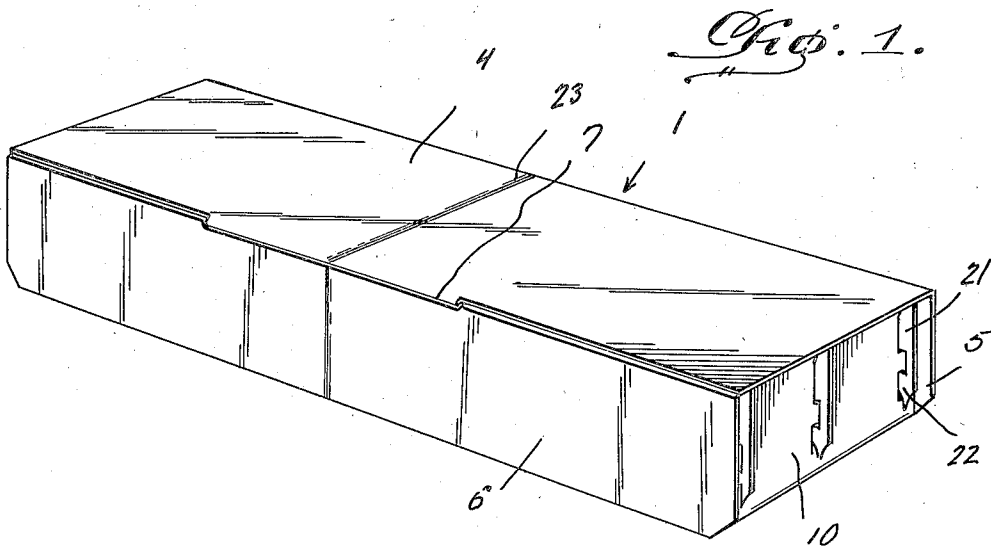
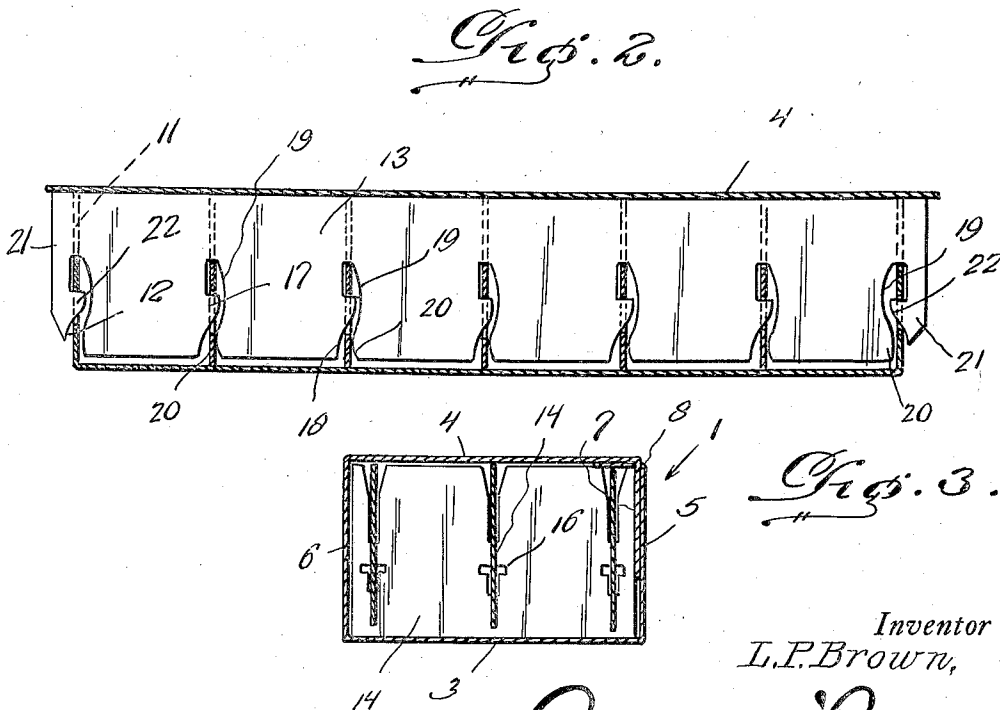
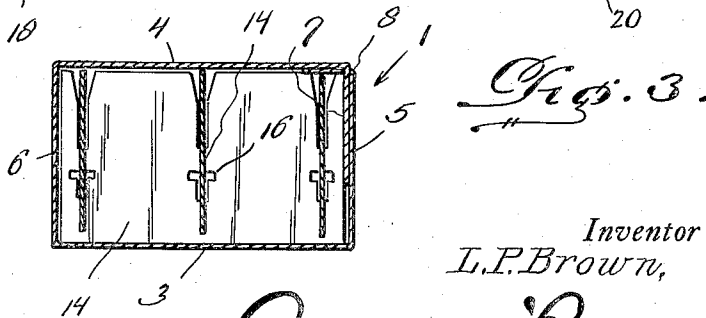
L. P. BROWN

1,668,549

FOLDING BOX

Filed Oct. 19, 1926

2 Sheets-Sheet 1



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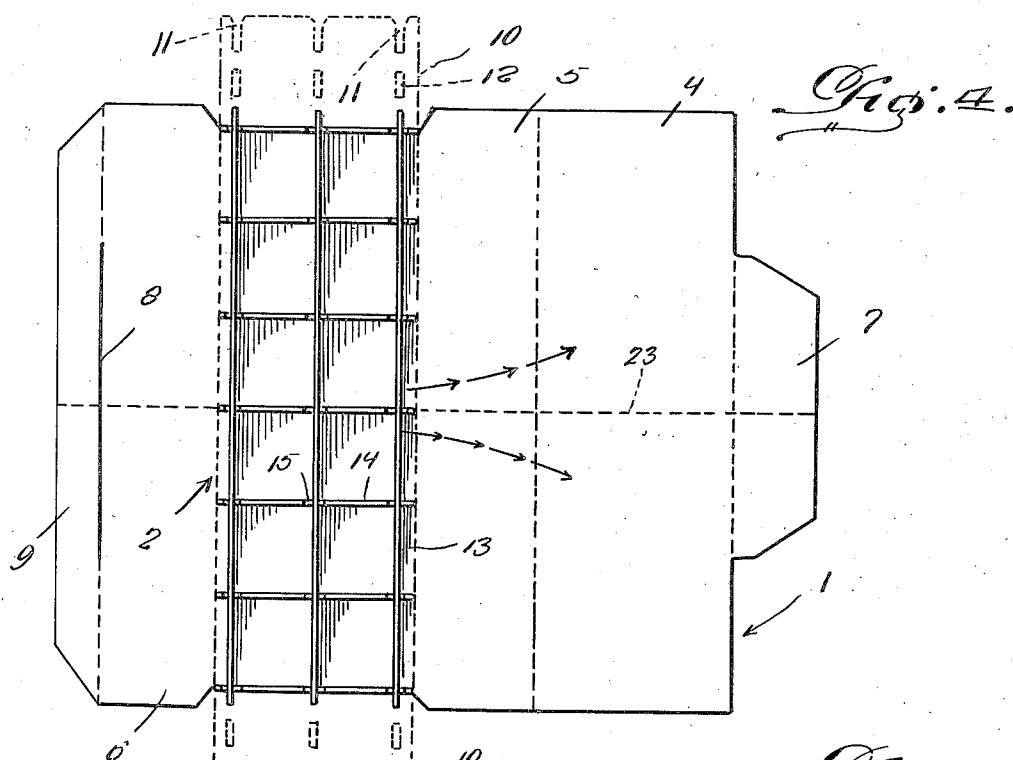
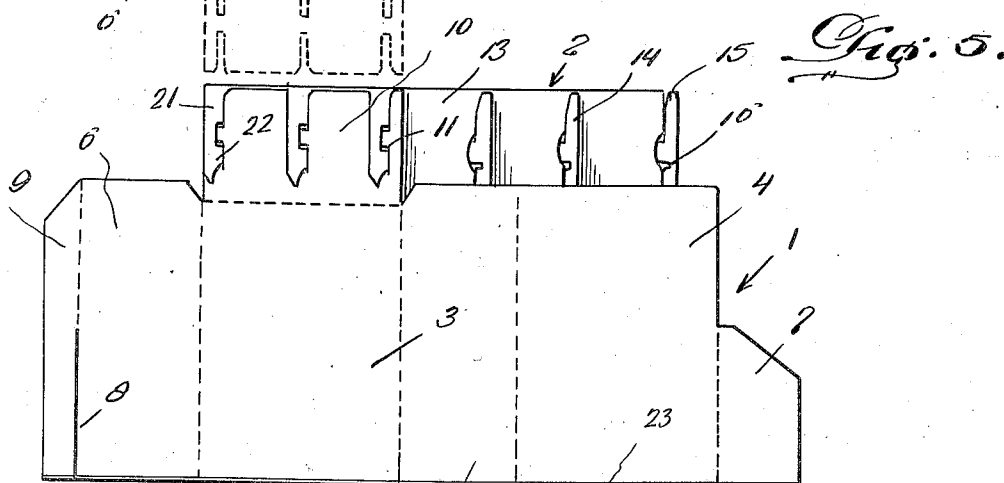
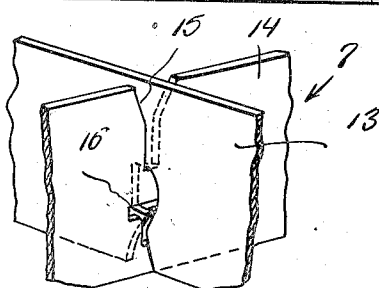
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L. P. BROWN

FOLDING BOX

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2 Sheets-Sheet 2



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Patented May 8, 1928.

1,668,549

UNITED STATES PATENT OFFICE.

LUTHER P. BROWN, OF NEW FREEDOM, PENNSYLVANIA, ASSIGNOR TO RED LION CARTON COMPANY, INC., OF RED LION, PENNSYLVANIA.

FOLDING BOX.

Application filed October 19, 1926. Serial No. 142,648.

This invention relates to an improved folding box of the multi-cell type which is especially, but not necessarily, adapted for containing eggs, individual articles of fruits, et cetera.

Briefly, the invention has reference to an improved foldable box made from a single blank of paper board or similar material, together with a cell unit, said unit being connected with said box in such a way as to move into cell forming position when the blank is spread out flat and ready to be folded up to make a complete box surrounding it.

It is my primary purpose, to generally improve upon structures of this class by providing one of comparative simplicity and durability wherein the details are novel and are associated in a novel manner forming an improved product of manufacture which is entirely satisfactory from a standpoint of use and also from a standpoint of handling and shipping due to the compactness and convenience of arrangement.

Other features and advantages of the invention will become apparent from the following description and drawings.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same:—

Fig. 1 is a perspective view of the structure ready for use.

Figure 2 is a longitudinal section through the same.

Fig. 3 is a central transverse section.

Fig. 4 is a view showing the cell unit in operative position with the portions of the box lying flat and ready to be folded up into forming relation.

Fig. 5 is a view showing the bottom half in the structure in Fig. 4 folded over onto the remaining or complementary half for convenience of packing and shipping.

Fig. 6 is a detail perspective view showing the association of the cell forming partition more plainly.

Referring to the drawings in detail it will be seen that the reference character 1 designates generally the box whereas the reference character 2 designates the cell unit. Considering first the box it will be seen that this is formed from a single blank of cardboard which has a plurality of spaced parallel fold lines dividing into a rectangular bottom sec-

tion 3, a correspondingly shaped top section 4, and side sections 5 and 6, respectively. The top section carries a central extension 7 forming a retainer which is adapted to be inserted through a slot 8 formed in the front side section 6, the last-named section is provided with a foldable flange 9 adapted to underlie the free edge of the top section 4. The blank also includes duplicate end walls 10 shown better in Figs. 1 and 5. At this time I would direct attention to the fact that the free edges of the end walls 10 are provided with notches 11 and inward of these notches with short slots or openings 12 which serve the purpose to be hereinafter described.

The cell unit 2 is made up of longitudinal and transverse partition pieces 13 and 14, respectively. Each transverse partition piece as better shown in Fig. 6 is provided with a plurality of elongated notches 15 having flared entrances and below these notches with substantially T-shaped openings 16. The complementary longitudinal partition pieces 13 are provided with intermediate slots of a peculiar formation as represented better in Fig. 2. Referring to this figure it will be seen that these slots open through the bottom edges and formed on one edge of the slot is an inwardly extending locking tongue 17 for cooperation with the T-shaped opening 16. The portion of this edge below the tongue is cut away to provide clearance as represented at 18. The opposite edge of the slot is formed with a longitudinally curved portion 19 and terminates in an abutment 20. With this arrangement it is obvious that the tongues 16 are permitted to extend into interlocking relation with the T-shaped slots thus connecting the partitions together as indicated in Fig. 2 and permitting them to be folded. The ends of each longitudinal partition are formed to provide depending extensions 21 carrying inwardly extending tongues 22 to fit into the aforesaid openings 12 in the end walls 10. The slots 19 which co-operate with these depending extensions 21, are of reverse formation when compared with the other slots 19; that is, they curve inwardly to provide clearance spaces for the projecting tongues 22.

In forming the improved product, the cell unit 2 is assembled upon the box 1 as shown more plainly in Fig. 4. As indicated in that figure, the tongues 22 on the ends of the longitudinal partitions 13 are engaged

with the slots or notches 11 and the openings 12, permitting the tongues 22 to project through the openings 12. The partitions and cells are connected together by inserting
 5 the solid web portion of the partition 13 into the flared notches 15 and then engaging the tongues 17 with the T-shaped openings 16. Assuming that the cell unit is attached to the bottom 3 of the box as explained, it
 10 is obvious that the side walls 5 and 6 are folded up against the longitudinal edge portion of the unit and that the flange 9 is folded over top of one edge portion, while the top section 4 is moved into overlapping
 15 relation with this flange as represented in Fig. 3. Then the extension 7 is inserted in the slot 8 and the box is maintained in closed position. Attention is now directed to a central longitudinal fold line 23 which intersects the first-named fold lines at about
 20 the centers of the same. This allows the blank to be folded into halves from the position shown in Fig. 4 to the position shown in Fig. 5. It is understood that during this
 25 folding the cell unit 2 is left in place and when the two half sections of the blank come together, this folds the cell unit substantially in halves which are shown projecting to the right of the end walls 10 in
 30 Fig. 5. This makes an exceptionally compact article and allows quick opening to the arrangement indicated in Fig. 4 for subsequent formation of the box.

It is believed that by considering the description in connection with the drawings a
 35 clear understanding of the invention will be had. Therefore, a more lengthy description is thought unnecessary.

Minor changes coming within the field of
 40 invention claimed may be resorted to if desired.

Having described the invention, what is claimed as new is:—

1. In a folding box of the type specified,
 45 a foldable blank for making a box embody-

ing a bottom, top, side, and end walls, formed by individual fold lines scored transversely on said blank, said end walls being formed with individual slots, and a foldable cellular filler including longitudinal
 50 partitions having tongues extending through said slots and forming hinge connections between said partitions and end walls, said blank and filler being foldable on additional
 55 fold lines into superposed halves in a direction at right angles to the transverse fold lines first named.

2. In a folding box of the class described, a foldable blank formed with a plurality of transversely extending longitudinally spaced
 60 fold lines scored for facilitating the formation of a box including bottom, side and top walls, said blank being provided with extensions projecting beyond the ends of the bottom wall and connected to said bottom
 65 wall by fold lines permitting said extensions to be bent upwardly to form end walls for the box, a cellular filler composed of interconnected longitudinal and transverse partitions connected in intersecting relation to
 70 provide a multiplicity of cells, the ends of the longitudinal partitions extending beyond the end-most transverse partitions, and tongue and slot connections between the ends
 75 of the longitudinal partitions and the end walls of said box for hingedly connecting said filler to said end walls, and for allowing right angular swinging movement of the longitudinal partitions with respect to
 80 said end walls, said blank being provided with a longitudinal fold line intersecting said transverse lines and said filler being foldable into half-sections at its center, whereby when said blank is folded on said
 85 longitudinal fold line into superposed halves, said filler is simultaneously folded into half sections between the longitudinal edge portions of said halves.

In testimony whereof I affix my signature.
 LUTHER P. BROWN.