

May 27, 1930.

E. E. HALE

1,760,132

EGG CARTON

Filed Dec. 6, 1927

2 Sheets-Sheet 1

FIG. 1.

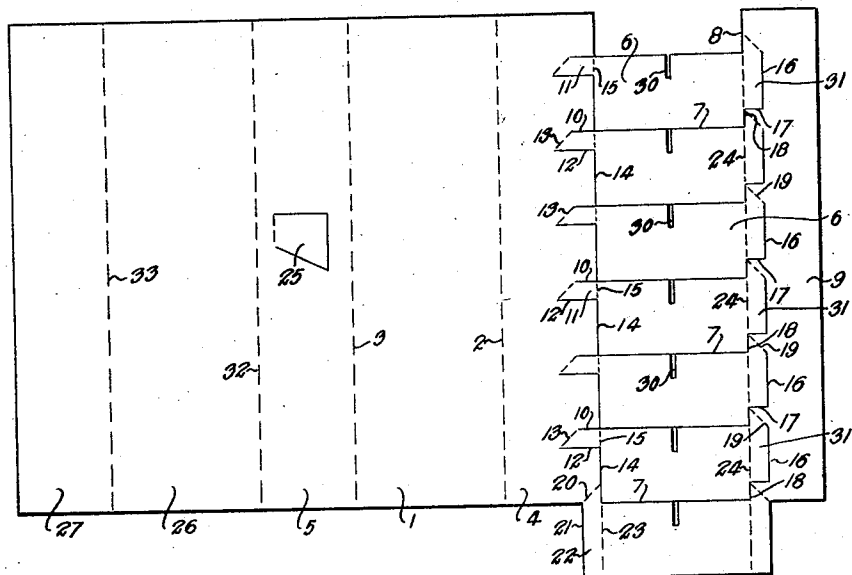
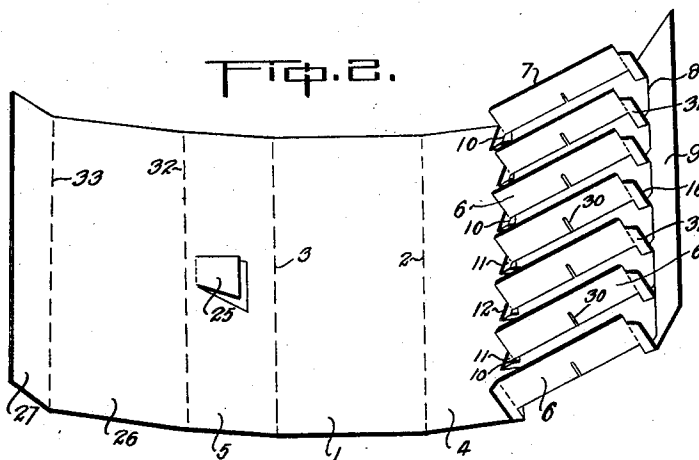


FIG. 2.



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FIG. 3.

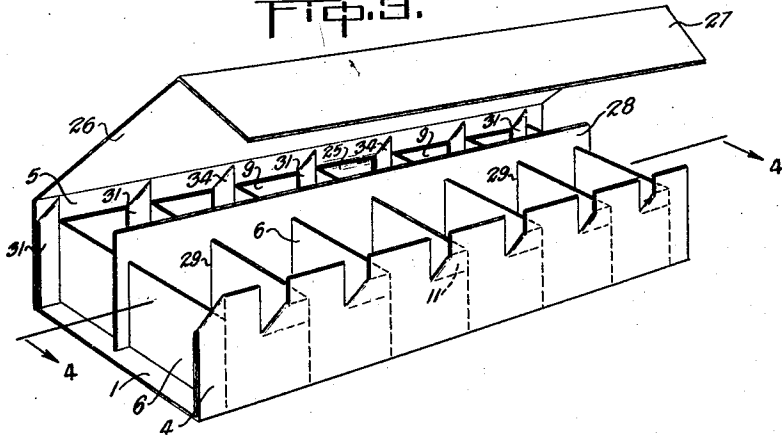


FIG. 4.

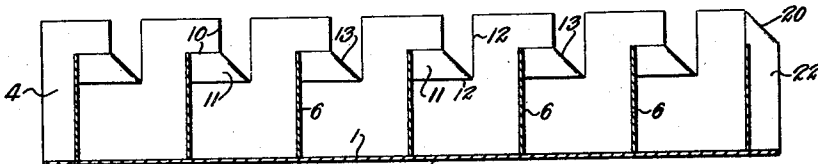


FIG. 5.

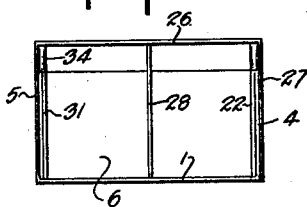


FIG. 6.

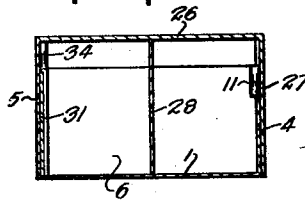
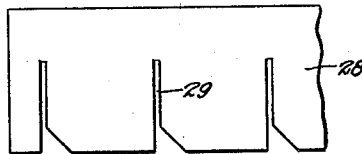


FIG. 7.



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EGG CARTON

Application filed December 6, 1927. Serial No. 238,153.

My invention relates to improvements in egg carton construction and the object of my invention is to construct a collapsible paste board carton in which the bottom, sidewalls, lid, and transverse partitions are formed from a unitary piece of material. Another object of my invention is to so form the transverse partitions in relation to the front and rear walls of the carton that they will of themselves swing into vertical alignment when the blank is being bent into carton form. A further object of my invention is to so form the front wall of my carton that it constitutes a rigid support for the front portion of the lid, thus reducing the possibility of egg breakage, and a still further object of my invention is to so construct my carton that it can be secured together in its assembled form by an integrally formed locking tongue, thus obviating the necessity of using any form of adhesives, wire staples, etc. as a locking means.

My invention consists of a carton constructed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawing in which:

Fig. 1 is a plan view of the cut blank from which my carton is formed.

Fig. 2 is a perspective view of such blank showing the sidewalls partially folded, where- by the transverse partitions are partially swung into their adjusted aligned positions.

Fig. 3 is a perspective view of the carton showing it adjusted for the reception of eggs, the lid being open.

Fig. 4 is a longitudinal vertical sectional view taken through the line 4-4 of Fig. 3.

Fig. 5 is an end view of the carton, the lid being closed.

Fig. 6 is a transverse cross-sectional view taken through the carton, the lid being closed.

Fig. 7 is a fragmentary view of the longitudinal partition which extends centrally through the carton.

Like characters of reference indicate corresponding parts in the different views.

1 is the bottom of the carton which is bent upwardly along its front and rear edges 2 and 3 to constitute the respective front and rear walls 4 and 5. The transverse partitions 6 which extend from the front wall 4 to the rear

wall 5 are integrally formed with the front wall and are cut in the following manner, as illustrated in Fig. 1. In this figure the full lines show where the partitions are cut and the dotted lines where they are bent.

The numerals 7 indicate a plurality of parallel transverse cuts of equal length which extend from the upper edge 8 of an inner rear wall strip 9 to the front wall 4, projecting thereinto to form the upper edges 10 of the transverse partition supporting pieces or brace tabs 11. 12 are a series of cuts extending inwardly from the upper edge of the front wall 4 in parallel relation to the portions of the cuts 7 which form the edges 10, the inner ends of each pair of cuts being connected by a diagonal folding line 13, such folding lines being directed at an angle of 45 degrees to the edge. 14 are the cuts which form the upper edge of the front wall 4 and extend downwardly from the outer ends of the cuts 12 to the cuts 7 as illustrated. 15 are folding lines lying in alignment with the cuts 14 and extending upwardly from the outer ends of the cuts 12 to the cuts 7. The inner ends of the transverse partitions 6 are secured to the strip 9 in the following manner. 16 are a series of aligned longitudinal cuts formed within such strip and lying in parallel relation to and spaced away from its inner or upper edge 8. These cuts each extend downwardly from points in alignment with the transverse cuts 7 and terminate at their juncture with transverse parallel cuts 17, which extend inwardly from the edge 8, and 18 are a further series of aligned longitudinal cuts forming part of the edge 8 and extending downwardly from the other ends of the cuts 17 to the respective transverse cuts 7. The slits 16, 17 and 18 as a whole, constitute a substantially Z-shaped slit. 19 are diagonal folding lines extending from the upper ends of the cuts 16 to the respective juncture points of the cuts 17 and 18, such folding lines being directed at an angle of 45 degrees to the edge 8. By this construction, brace-tabs 31 are provided, which, in the unfolded position of the box, overlie the rear wall 9 and their triangular-shaped upper portions ex-

tend above the top edge 8 of said wall to provide rear supports for the cover 26.

Upon further reference to Figure 1, it will be seen that the lowermost partition 6 is connected to the front 4 in a different manner to that before described. This partition extends downwardly below the end of the blank and is connected to the front 4 in a similar manner to its connection with the strip 9 wherein a diagonal bending line 20 is formed which extends upwardly from the juncture point of the end of the carton and the transverse edge 21 of the side member 22 to the lowermost cut 14. A bending line 23 of similar form to the bending lines 24 which form part of the edge 8 and the strip 9 is also formed in this lowermost partition.

25 is a tongue cut within the rear wall 5 and adapted to engage the strip 9 when carton is in the folded position as illustrated in Figure 3, the strip being inserted behind such tongue. 23 is the lid of the carton which is a continuation of wall 5, its outer edge being furnished with a portion 27 which is adapted to be bent at right angles therewith so that it lies against the front face of the carton when the lid is closed, each portion 27 being of the same depth as the depth of the front wall 4.

The central partition 28 is adapted to extend longitudinally of the carton and is provided with a plurality of flare-mouthed slots 29 into which are inserted the transverse partitions 6 when such longitudinal partition is positioned in place. The transverse partitions 6 are also provided with downwardly extending centrally disposed slots 30 adapted to receive the upper portion of the longitudinal partition when it is inserted.

When it is desired to fold a blank as illustrated in Figure 1 into its adjusted position the strip 9 is first bent upwardly as illustrated in Figure 2, and as the partitions 6 are attached to the strip by means of the portions through which the angularly extending folding lines 19 pass, and to the front wall 4 by means of the portions through which the angularly inclined bending lines 13 pass its upward movement will cause such transverse partitions to swing upwardly as illustrated in Figure 2, the strip portions 31 bending along the lines of the edge 8 and the front wall portions bending along the lines 15 until they assume a position at right angles to the partitions. The lower transverse partition will also swing upwardly, its portion 22 bending along the folding line 23 which in turn bends along the folding line 20. The strip 9 and partitions 6 are next swung in an anticlockwise direction so that the faces of the supporting pieces 11 lie along the inner face of the front wall 4, and the portions or brace tabs 31 come into contact with the inner face of the strip 9. The front wall 4 is in turn bent along the folding line 2 until it assumes a vertical position and the strip 9

which is also in a vertical position lies along the bending line 3 of the rear wall 5. Such rear wall 5 is then swung upwardly in a clockwise direction until it comes into contact with the strip 9, the tongue 25 engaging the strip which is inserted therebehind as illustrated in Figure 3. The top 26 is then bent downwardly along the folding line 32 and the portion 27 bent downwardly along the folding line 33.

Upon reference to Figure 3 which shows the carton in its adjusted position it will be observed that the transverse partition supporting members 11 lie in parallel relation to the top of the front wall 4 and at right angles to the partitions, and that the diagonal bending lines 19 in conjunction with the cuts 17 and 18 form vertically extending pairs of right angled triangular members 34, which protrude upwardly from the upper edge of the strip 9 so that their apexes reach the bending line 32. When the carton is folded in this position, the transverse partition 28 is next inserted in place as illustrated in Figure 3 and the carton is then ready for the reception of the eggs.

From the foregoing description, it will be seen that I have devised a very simple and easily adjusted collapsible egg carton in which I have obviated the use of adhesives or wire clips as a fastening means, my carton being so constructed that it is securely held in its assembled form by means of a self-contained locking tongue. Furthermore, I have constructed a carton in which the bending of the front wall and rear wall engaging strip causes the transverse partitions to swing into place, thus effecting a great saving of time which would otherwise be lost in individually swinging the transverse partitions into their adjusted positions. By removing the locking tongue 25 out of engagement with the strip 9, the transverse partitions will be permitted a swinging movement about the bending lines 15 and 24 which will allow them to lie flat against the inner face of the front wall 4 and thus permit the carton to be semi-folded in the factory before being shipped to the egg merchants. Although I have shown a particular construction of my invention, it is to be understood that I can resort to various changes in the proportion, form, and minor details without departing from my invention as set forth in the following claims.

What I claim as my invention is:

1. A collapsible carton, comprising a lid, bottom, sides and transverse partitions between the sides and integrally connected therewith, and brace members formed in the rear side by slitting the same to provide resulting tabs joined by folds to the rear wall and partitions, respectively, the upper ends of said tabs extending above the top edge of the rear side and partitions and disposed in horizontal alinement with the top edge of the

front side to form supports for the lid when closed.

slits and the other slit intersecting the adjoining longitudinal scoring between said front side and said partition portion and the scoring connecting the other ends of each pair of slits.

2. A collapsible carton, comprising a lid, bottom, sides, and transverse partitions between the sides and integrally connected therewith, and brace members formed in the front side by parallel upright slits of unequal length, the resulting tabs being disposed horizontally below the top edge of said front side and joined by folds to the latter and said partitions, the front and rear sides having portions projecting above the top edges of the partitions and the brace tabs to constitute supports for the lid when folded.

3. A collapsible egg carton formed from a blank which is cut and creased to provide a bottom, sides and transverse partitions between said sides, and brace tabs formed in said sides by slitting the same and connected thereto and to the partitions by folds, the tabs in one side extending horizontally in overlying relation thereto and disposed below its top edge, and the tabs in the other side being disposed vertically in overlying relation thereto and having their upper portions projecting above the top edge of such side and in horizontal alinement with the corresponding edge of the other side.

4. A blank for a foldable carton, comprising a sheet-like body scored longitudinally to provide a bottom, front and rear sides, and a cover, a partition-bearing portion adjoining said front side and including a strip constituting a supplemental rear side, longitudinal scorings between the partition-bearing portion, its strip and the front side, transverse slits in said portion forming a plurality of transverse partitions, said slits intersecting the last-named longitudinal scorings, substantially Z-shaped slits formed in said supplemental rear side and forming at one end continuations of the transverse slits, the other end of said Z-shaped slits terminating substantially opposite and in spaced relation to the next adjoining transverse slit, and scorings connecting the last-named ends of the Z-shaped slits with adjoining corresponding slits.

5. A blank for a foldable carton, comprising a sheet-like body scored longitudinally to provide a bottom, front and rear sides, and a cover, a partition-bearing portion adjoining said front side and including a strip constituting a supplemental rear side, longitudinal scorings between the partition-bearing portion, its strip and the front side, transverse slits in said portion forming a plurality of transverse partitions, said slits intersecting the last-named longitudinal scorings, a plurality of sets of parallel, transverse slits formed in the front side adjoining the partition portion, one slit of a pair being in line with and constituting a continuation of the corresponding transverse partition-forming

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