

Oct. 29, 1929.

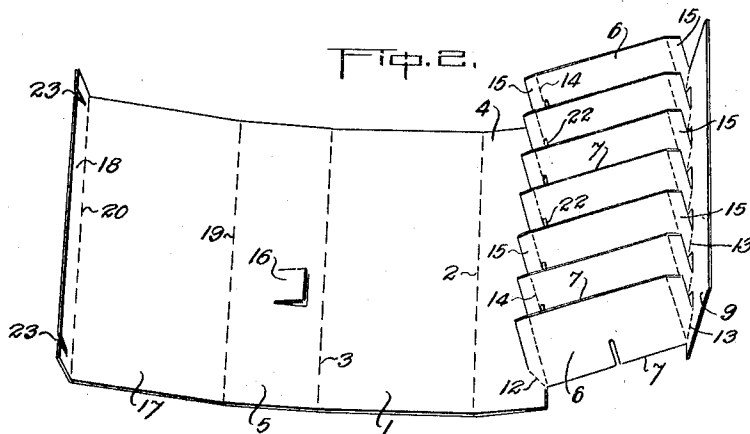
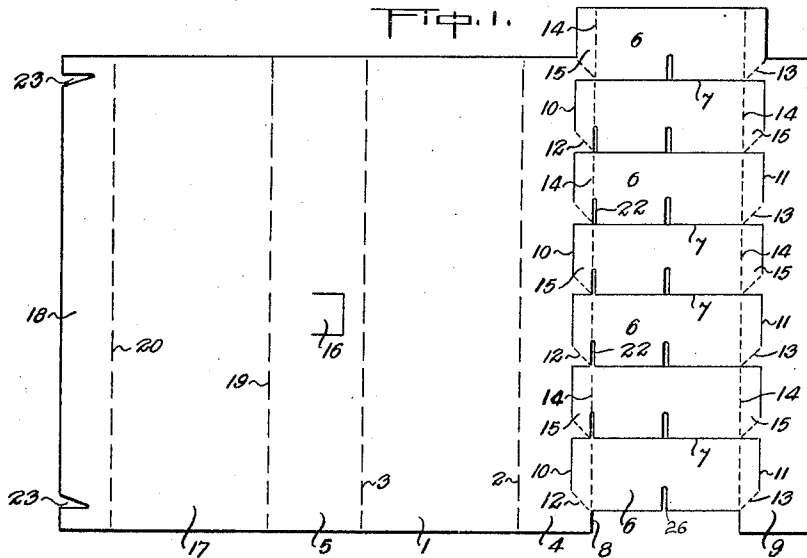
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1,733,663

EGG CARTON

Filed Oct. 1, 1926

2 Sheets-Sheet 1



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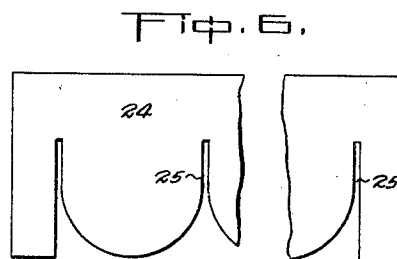
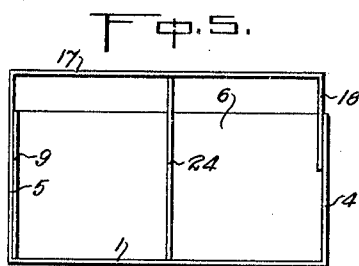
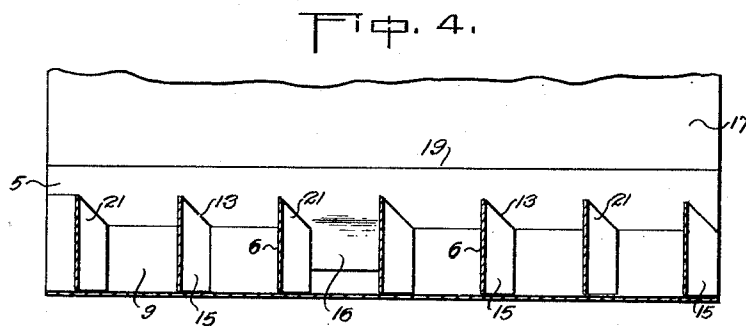
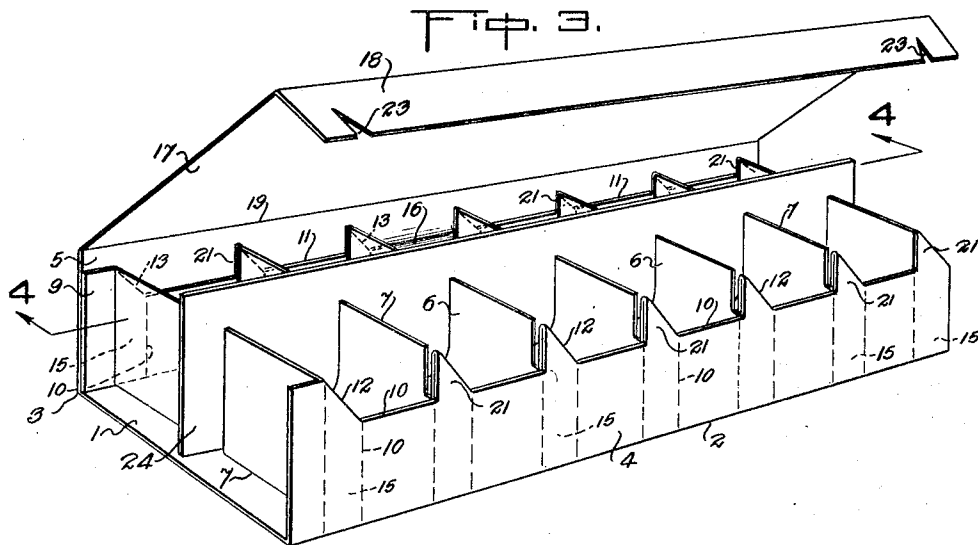
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EGG CARTON

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2 Sheets-Sheet 2



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EGG CARTON

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My invention relates to improvements in cartons and the object of my invention is to construct a collapsible egg carton formed of pasteboard or other suitable substance in which the bottom, side walls, lid and transverse partitions are formed from a unitary piece of material. Another object of the invention is to so construct my carton that it can be secured together in its assembled form by an integrally formed locking tongue and thus obviate the necessity of using any form of adhesives, wire staples, etc.

A further object of the invention is to so cut and fold the adjacent edges of my transverse partitions in relation to the front and rear walls of the carton that they will swing into their adjusted vertical alignment when such side walls are being bent into their adjusted positions. A still further object of my construction is to provide means for securing the free edge of the lid to the main portion of the carton so that it is locked against lateral movement through its transverse and longitudinal engagement with the transverse partition members.

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 side walls partially folded whereby 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 through the line 4-4 Figure 3.

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

Fig. 6 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. My transverse partitions 6 which are adapted to 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 Figure 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 extending from inside the outer or upper edge 8 of the front wall 4 and projecting into a rectangular strip 9 which is adapted to lie against the inner face of the rear wall 5 and constitute an inner wall when the carton is in its folded or adjusted position as will be hereinafter explained. 10 and 11 are two series of aligned longitudinal cuts formed within the front wall 4 and the strip 9 respectively. As illustrated in Figure 1 each pair of cuts 10 and 11 extend downwardly from the respective ends of one of the cuts 7 in parallel relation to the edges of the front wall 4 and strip 9 and terminate at the upper ends of diagonal folding lines 12 and 13 which extend from the intersecting points of the adjacent lower cut 7 and the edges of the front wall 8 and strip 9 respectively, such folding lines being directed at an angle of 45 degrees to the edges. It will be seen by this method of cutting that the partitions 6 are independent of each other and only secured to the wall 4 and strip 9 by means of the integral portions through which the folding lines 12 and 13 pass. 14 are folding lines extending in parallel relation to the cuts 10 and 11 from the intersecting points of the diagonal folding lines 12 and 13 and cuts 7 to the opposite edge of each partition, such folding lines permitting the partition portions 15 thus formed to bend in relation to the partitions when the carton is being folded into its adjusted position.

16 is a tongue cut within the rear wall 5 and adapted to engage the strip 9 when the carton is in the folded position as illustrated in Figure 3, the strip being inserted behind such tongue. 17 is the lid of the carton which is a continuation of the wall 5, its outer edge

being furnished with a portion 18 which is adapted to be bent at right angles thereto and to constitute a carton engaging portion when the lid is closed.

5 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 said strip and the front wall 4 by means of the portions through which the angularly inclined folding lines 12 and 13 pass its upward movement will cause such transverse partitions to swing upwardly as illustrated, the portions 15 bending along the folding lines 14 until they assume a position at right angles to the partitions, the strip 5 of course coming into contact with the faces of the adjacent bent portions 15. The strip 9 and partitions 6 are next swung in an anticlockwise direction so that the faces of the bent portions 15 adjacent to the wall 4 come into contact with its face, such wall in turn being swung upwardly along the bending 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 in contact with the strip 9, the tongue 16 engaging the strip which is inserted therebehind as illustrated in Figure 4. The top 17 is then bent downwardly along the folding line 19 and the portion 18 bent in relation to the top along the folding line 20.

35 Upon reference to Figure 3 which shows the carton in its adjusted position it will be observed that the diagonal bending lines 12 and 13 in conjunction with the cuts 7 and bending lines 14 form vertically extending pairs of right angle triangular members 21 which protrude upwardly beyond the upper edges of the front and rear walls, such pairs of triangular members being of course formed integrally one with the other, their hypotenuse being either the bending lines 12 or 13. As the inner triangular portions are the upper ends of the portions 15 which are formed integrally with the transverse partitions it will be readily appreciated that such partitions are rigidly held in their adjusted relation to the front wall 4 and strip 9.

For providing a locking means for the portion 18 with the carton when the lid is in the closed position I provide downwardly extending vertical cuts 22 in each of the inner partitions 6, such cuts extending downwardly from the point of intersection of the bending lines 12 and cuts 7, the portion 18 being adapted to enter such cuts when the lid is closed. In lieu of providing similar cuts in the two outer partitions I provide V-shaped cuts 23 in the portion 18 into which the upper edges of the outer partitions 6 enter so that whilst the cuts 22 in the inner partitions prevent an inward movement of the portion

18, the cuts 23 in such portion prevent a lateral movement of the lid.

24 is a central partition adapted to extend longitudinally of the carton and provided with a plurality of flare-mouthed slots 25 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 26 adapted to receive the upper portion of the longitudinal partition when it is inserted in position.

From the foregoing description it will be apparent that I have devised a simply and easily adjusted collapsible carton for the reception of eggs in which I have obviated the use of adhesives as a fastening means, the carton being securely held in its assembled form by means of a self-contained locking tongue. Furthermore I have constructed a carton in which each transverse partition is securely retained in its adjusted position when swinging movement thereof which might cause egg breakage being obviated through the provision of the triangular partition supporting members which will of course not readily permit of bending in a longitudinal direction and also by so dimensioning my locking tongue that it extends from the edge of one of the portions 15 to the face of the adjacent transverse partition I have prevented any possibility of the partitions having a swinging movement about the bending lines 14 at the juncture of such partitions and the portions 15 lying along the inner face of the front wall 4. By removing the locking tongue from out of engagement with the strip 9 the transverse partitions will be permitted a swinging movement about their respective bending lines 15 which will allow them to lie flat against the inner face of the front wall 4 and thus permit the carton to be folded for transit to the egg packers and thus permit them to save time in adjusting the carton to receive eggs.

What I claim as my invention is:

1. A carton, comprising a bottom and side walls and a swingable lid therefor connected to the upper edge of the rear side wall, a strip extending along the inner face of the rear wall and adapted to constitute an inner side wall, a plurality of integrally formed members projecting upwardly from the upper edges of the inner side wall and the front side wall, a plurality of transverse partitions each connected to and supported by the projecting members and having slots extending downwardly from their upper edges in proximity of the juncture of the front of the partitions and the projecting members on the front side wall, and a bent-over strip member upon the free edge of the lid adapted to enter the slots in the partitions when the lid is closed.

2. A carton, comprising a bottom and side walls and a swingable lid therefor connected

to the upper edge of the rear side wall, a strip extending along the inner face of the rear wall and adapted to constitute an inner side wall, a plurality of integrally formed members projecting upwardly from the upper edges of the inner side wall and the front side wall, a plurality of transverse partitions each connected to and supported by the projecting members, the two outer partitions constituting the two end walls of the carton, the inner partitions having slots extending downwardly from their upper edges in proximity to their juncture with the projecting members on the front side wall of the carton, and a bent-over strip member upon the free edge of the lid having a pair of slots therein each in the vicinity of one end thereof, the outer partitions being adapted to enter such slots, and a strip member to enter the slots in the transverse partitions when the lid is closed.

3. In a carton, the combination with the bottom and side walls thereof, of a plurality of transverse partitions in the carton, a plurality of integrally formed right angle triangular members projecting upwardly from the upper edges of the side walls, one side of each of the triangular members being at right angles to said upper edges, and a plurality of quadrilateral members lying along the inner face of one of the carton walls, each member being integrally connected to the hypotenuse side of one of the triangular projecting members and having its lower edge resting upon the bottom of the carton.

4. In a carton, the combination with the bottom and side walls thereof, of a plurality of transverse partitions in the carton, a strip extending along the inner face of one of the side walls and adapted to constitute an inner side wall, a plurality of integrally formed right angle triangular members projecting upwardly from the upper edges of the inner side wall and the opposite side wall of the carton, one side of each of the triangular members being at right angle to said upper edges, a plurality of quadrilateral members lying along the inner faces of the inner side wall and the opposite side wall of the carton, each member being integrally connected to the hypotenuse side of one of the triangular projecting members and having its lower edge resting upon the bottom of the carton.

EDWARD EVERETT HALE.