May 8, 1951 L. SCHWARTZBERG 2,551,854

EGG CARTON

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Fig. 1.

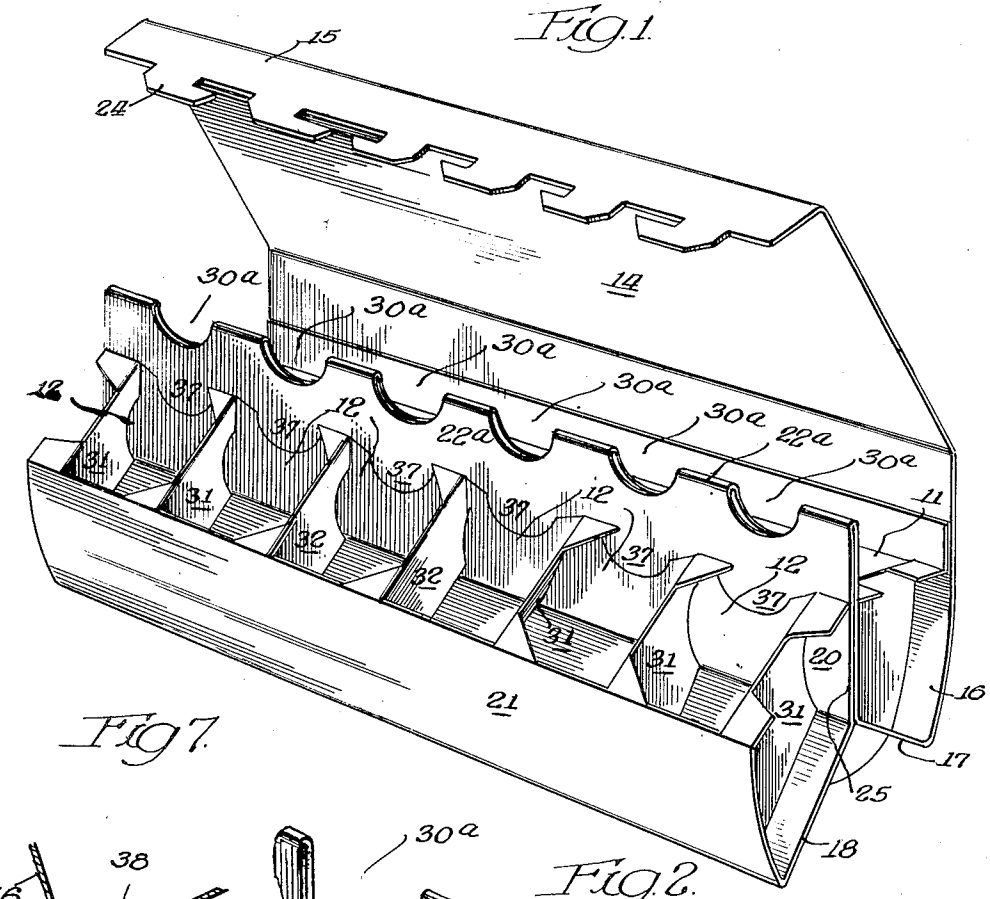


Fig 7.

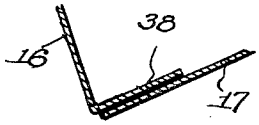


Fig 2.

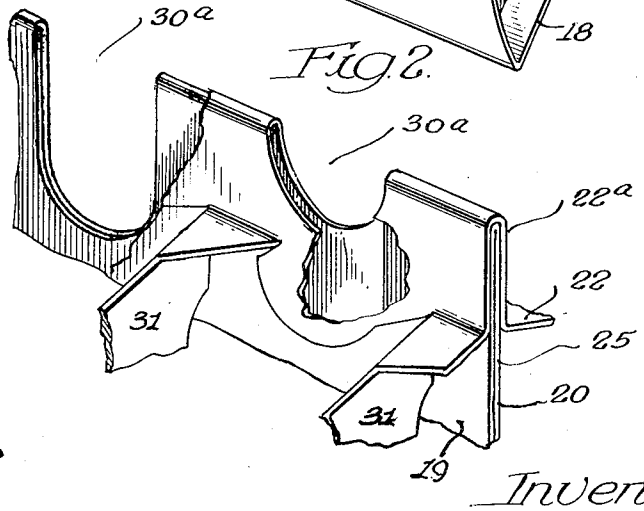
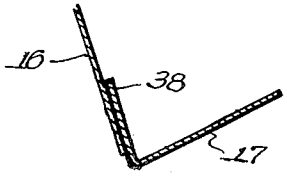


Fig. 8.



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Fig. 3

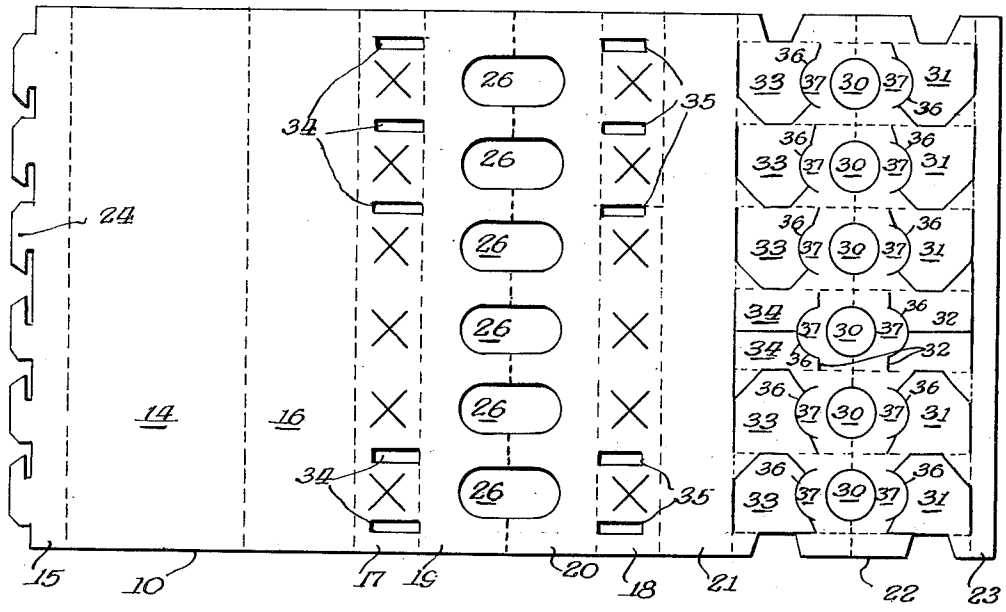


Fig. 4

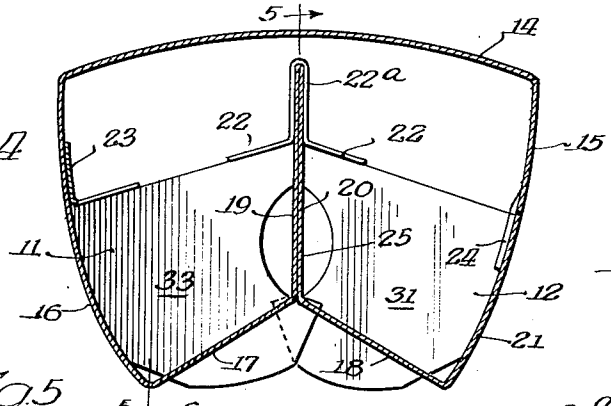


Fig. 5

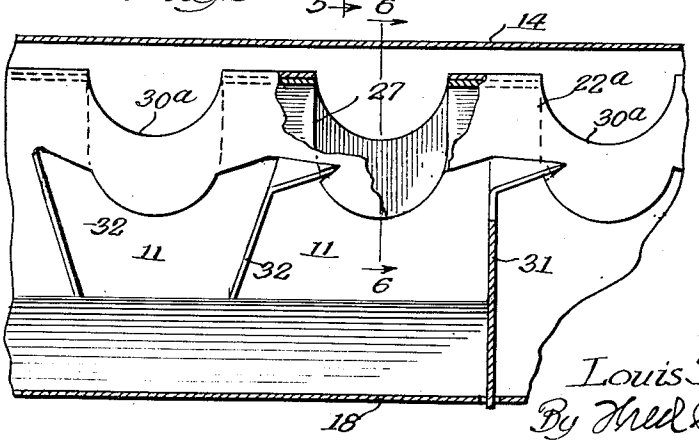
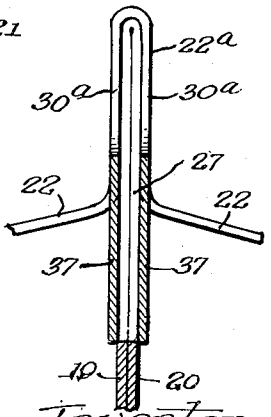


Fig. 6.



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EGG CARTON

Louis Schwartzberg, Chicago, Ill.

Application August 10, 1948, Serial No. 43,479

2 Claims. (Cl. 229—28)

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This invention has to do with an improved egg carton of the folded paperboard type.

One of my primary objects is to provide an egg carton of the above-indicated variety which will afford a high degree of protection against egg breakage while not entailing materially increased production cost.

Another object is to provide an egg carton construction which is exceptionally strong and rigid, even when made of relatively cheap paperboard.

A further object is to provide an egg carton possessing the above-specified characteristics and which can be shipped from the place of manufacture in flat form and thereafter quickly set up for use at any egg packing establishment.

The novel features of my invention will be pointed out and explained in conjunction with the ensuing detailed description, wherein reference is made to the accompanying drawings, in which:

Fig. 1 is an isometric view of a completed egg carton embodying the preferred form of the invention;

Fig. 2 is an enlarged fragmentary view of the lengthwise-extending middle partition of the carton, together with a portion of the overlying top section of the same, illustrating particularly a novel cushioning construction which is interposed between transversely contiguous egg-holding cavities;

Fig. 3 is a plan view of the paperboard blank from which the completed carton of Fig. 1 is formed;

Fig. 4 is a transverse sectional view of the carton;

Fig. 5 is a fragmentary longitudinal section taken along the line 5—5 of Fig. 4;

Fig. 6 is an enlarged section on the line 6—6 of Fig. 5;

Fig. 7 is a fragmentary transverse section illustrating a modified form of egg carton wherein the back wall is formed separately from the rearmost bottom section and is connected to the latter by a flap which is formed integrally with the back wall and is pasted to the upper surface of the rear margin of said rearmost bottom section; and

Fig. 8 is a fragmentary transverse section showing a second modified form wherein the back

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wall and rearmost bottom section are formed separately from one another and are connected together by way of a flap which is formed integrally with the rear margin of the rearmost bottom section and is pasted to the inner surface of the lower margin of the back wall.

The carton illustrated in the drawings is formed from a single paperboard blank 10, shown flat in Fig. 3; and said blank is shaped and die-cut as clearly depicted in that figure, and is scored for folding as indicated by the several dotted lines shown on the blank. Usually, as in the present instance, the carton is designed to receive one dozen eggs and, accordingly, is provided with twelve egg-receiving cavities arranged in two parallel rows of six each. The cavities of the rear row are each identified by reference numeral 11, while those of the front row are identified by reference numeral 12, as shown most clearly in Fig. 4.

The several distinct but integral parts of the carton illustrated comprise: a cover 14 with a front portion or flap 15, a back wall 16, two convergent bottom sections 17 and 18, respectively, two centerboard sections 19 and 20, a front wall 21, and a top section 22 having a gluing strip 23. The front portion 15 of the cover 14 is cut to form a series of locking hooks 24 along its lengthwise edge, which serve to secure the cover in closed position, as per Fig. 4.

The centerboard, identified as a whole by reference numeral 25, consists of the two aforementioned centerboard sections 19 and 20, glued together in face-to-face contact; and that portion of the blank which forms said centerboard is preferably provided with six oblong openings 26, Fig. 3, which, when the blank is folded result in a series of comparatively deep notches 27, each of which is so located as to register with an egg-receiving cavity in each of the two rows within the carton. One of the notches 27 is shown to best advantage at the left-hand end of Fig. 2, where a portion of the top section 22 is broken away in order to expose said notch.

The top section 22 is cut, as shown in Fig. 3, to form six circular openings 30 and two series of transverse partition members arranged in rows at either side of the openings 30. The principal transverse partition members of one row are five in number and identified each by reference nu-

meral 31; and in the same row are two adjacent cut-outs 32 which also serve as transverse partitions, but differ from the members 31 in that they are not long enough to be anchored at their lower ends.

The principal transverse partition members of the other row are identified each by reference numeral 33; and these are supplemented by two adjacent cut-outs 34 corresponding to the aforementioned cut-outs 32 and likewise serving as transverse partitions. All the partition members 31–34 inclusive are formed by die-cutting the blank; and they are designed to be turned at right angles to the blank along the dotted fold lines shown adjacent thereto in Fig. 3.

The top section 22 overlies the centerboard 25 and is folded thereover to form a crown or cap as at 22*a*—shown most clearly in Fig. 4—the gluing strip 23 of said top section being adhered to the back wall 16, as depicted in the same figure of the drawing.

The bottom sections 17 and 18 are each die-cut to provide five slot-like openings, which in the one case are numbered 34 and in the other case 35. These openings function to receive, in each instance, one of the hook-like lower ends of one of the principal transverse partitions 31 or 33—said hook-like lower ends being designed to underlap the bottom wall of the carton, as illustrated in Fig. 4. The cut-outs 32 and 34 do not include the aforementioned hook portions.

The apex of the crown portion 22*a* coincides with the common line of centers through the openings 30. Thus, when the top section 22 is folded over the centerboard, as illustrated in Fig. 4, one-half of each opening 30 is disposed at either side of the centerboard, thereby forming the semicircular notches 30*a*—see especially Fig. 1. The notches 30*a* are of materially less depth than the notches 27.

The top section 22, see Fig. 3, is also die-cut to form twelve semicircular incisions 36, thereby engendering twelve semicircular ears 37, each pair of which is aligned with one of the openings 30. The center-to-center distances between each pair of arcuate incisions 36 (on opposite sides of openings 30) preferably is equal to the distance between centers of the semicircular arcs forming the ends of any one of the oblong openings 26; and, consequently, when the top section 22 is folded over the centerboard 25, as at 22*a*, the semicircular edges of the ears 37 coincide with the semicircular outlines of the respectively associated notches 27. Thus, the ears 37 are each capable of being deflected into the adjacent associated notches 27.

Each of the ears 37 is so situated that the belly of an egg in the immediately adjacent cavity 11 or 12 will bear thereagainst; and said ears serve as resilient cushioning members to absorb the shock of impact between the bellies of the eggs and the center partition—which latter comprises the centerboard 25 and the crown 22*a*, which preferably is glued to the centerboard.

The above described egg cushioning means, comprising the ears 37 and the notches 27, providing clearance for the movement of said ears, constitutes one of the major improvements effected by my present invention.

As shown in the drawing the carton as a whole may be formed of a single or one-piece blank of any suitable paperboard. As an alternative the flap equipped cover 14 and the back wall 16 may be formed separately from the remaining parts of the carton. If the alternative construction is employed the back wall 16 is connected to the bottom section 17 by a flap 38. The latter may be either formed integrally with the lower margin of the back wall 16 and pasted to the upper surface of the adjoining margin of the bottom section 17, as shown in Fig. 7, or formed integrally with the rear margin of the bottom 17 and pasted or otherwise fixedly secured to the inner surface of the bottom margin of the back wall 16, as shown in Fig. 8. It is contemplated that if the alternative construction is employed the flap equipped cover 14 and the back wall 16 will be formed of coated paperboard and the remainder of the parts of the carton will be formed of uncoated paperboard in order appreciably to decrease the cost of producing the carton.

While I have illustrated, by way of example, but one embodiment of my invention, it will be apparent to those who are skilled in the art that various modifications may be made without departing from the scope and purview of my inventive concept.

Having described my invention, what I claim as new and wish to secure by Letters Patent is:

1. As a new article of manufacture, an egg carton formed from a blank of paper board and comprising a front, a cover-equipped back, a bottom extending between, and connected to, the bottom margins of the front and back and having the central portion thereof shaped to form an upstanding, longitudinally extending, two ply, partition-forming centerboard midway between said front and back, and a top section extending between, and connected to, the top margins of the front and back, having the central portion thereof shaped to form a longitudinally extending, two ply, inverted U-shaped crown in straddled and embracing relation with the upper portion of the centerboard, and having its portions at opposite sides of the crown cut out and bent downwards to form a plurality of spaced apart, transversely extending cross partitions which form with the centerboard and said front and back two adjacent rows of egg receiving cavities, the upper portions of the two plies of the centerboard having formed therein midway between the cross partitions comparatively deep openings, the portions of the two plies of the crown that are midway between said cross partitions extending across said openings and being shaped to form depending resilient ears which are yieldable in the direction of the openings and form cushioning means for engaging the bellies of the eggs in the cavities and protecting them against breakage.

2. As a new article of manufacture, an egg carton formed from a blank of paper board and comprising a front, a cover-equipped back, a bottom extending between, and connected to, the bottom margins of the front and back and having the central portion thereof shaped to form an upstanding, longitudinally extending, two ply, partition-forming centerboard midway between said front and back, and a top section extending between, and connected to, the top margins of the front and back, having the central portion thereof shaped to form a longitudinally extending, two ply, inverted U-shaped crown in straddled and embracing relation with the upper portion of the centerboard, and having its portions at opposite sides of the crown cut out and bent downwards to form a plurality of spaced apart, transversely extending, cross partitions which form with the centerboard and said front and back two adjacent rows of egg receiving

cavities, the upper portions of the two plies of the centerboard having formed therein midway between the cross partitions comparatively deep, open top, notch-like openings, the portions of the two plies of the crown that are midway between said cross partitions having their upper parts extending across the upper parts of the openings and having the bottom parts thereof shaped to form depending resilient ears which are shaped conformably to, and are yieldable into, the lower parts of said openings and form cushioning means for engaging the bellies of the eggs in the cavities and protecting them against breakage.

LOUIS SCHWARTZBERG.

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