March 5, 1935. C. S. ANTON 1,992,983

EGG CARTON

Filed April 28, 1933

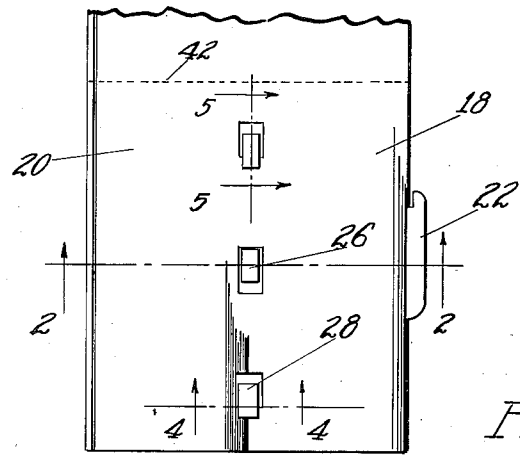


FIG. 1

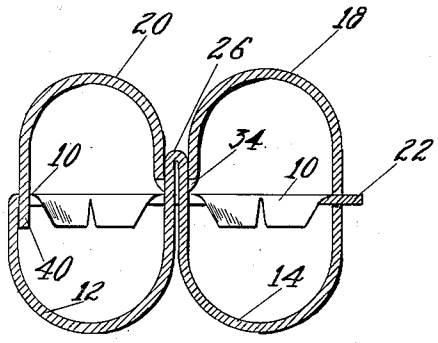


FIG. 2

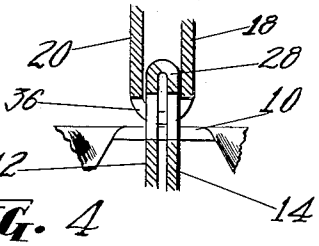


FIG. 4

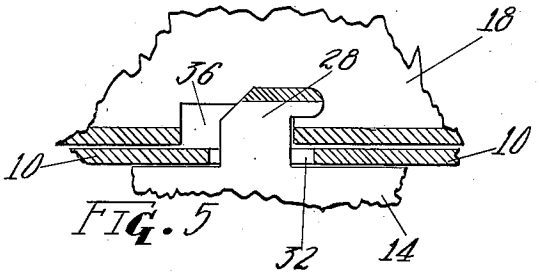


FIG. 5

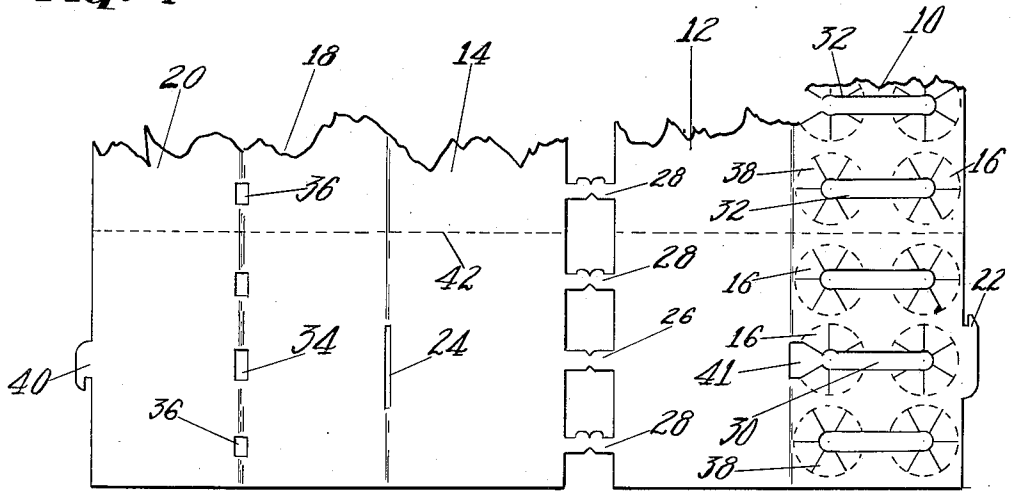


FIG. 3

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EGG CARTON

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16 Claims. (Cl. 229—29)

This invention relates to an improved egg carton, and has for one of its principal objects the provision of an egg carton which shall be composed of a minimum amount of material, while, at the same time, affording adequate and satisfactory support for the eggs.

One of the important objects of this invention is to provide an egg carton which is constructed from a single blank of cardboard or the like, and which can be readily filled and then locked into position about the eggs without the use of any additional appurtenances such as string, gummed flaps or other fastening appliances.

Another important object of the invention is to provide an egg carton which, on account of its minimum size can be placed in the ordinary wooden egg case, so that the usual number of eggs in a case can be conveniently and safely transported therein, and in which the eggs are immediately available for retail distribution when the case or crate arrives at its destination.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawing and following specification.

The invention, in a preferred form, is illustrated in the drawing and hereinafter more fully described.

In the drawing:

Figure 1 is a top plan view of a portion of the improved egg carton of this invention, showing certain of the locking details.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a plan view of the blank from which the carton is formed.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a sectional view taken on the line 5—5 of Figure 1, looking in the direction indicated by the arrows.

As shown in the drawing:

The reference numeral 10 indicates the main egg supporting section of the improved egg carton of this invention, which portion is flat as illustrated, and is integral with two adjacent curved sections 12 and 14 which are formed in such a shape as to snugly inclose eggs in the egg-retaining depressions 16 in the flat element 10. These egg retaining depressions 16 are formed in the usual manner by slits, preferably staggered with reference to each other, as best shown in Figure 3.

Also integral with the remainder of the carton are top elements 18 and 20 which are likewise curved to correspond in shape to the portions 12 and 14.

It will be noted that the package is characterized by the absence of binding twine, gummed tape or other fastening means, and is further characterized by the presence of only a single egg supporting element 10. This construction is possible on account of the integral interlocking arrangements of the carton and the positive means whereby the top and bottom sections are held in close conformity to the flat egg-supporting section.

These interlocking arrangements include a series of tabs integral with the material of the carton and adapted to project into cooperating slots formed therein. For example, tabs 22 are formed integral with the main egg-supporting element 10 and extend outwardly therefrom through slots 24 formed in that portion of the carton which is in juxtaposed relation with the tabs or projections 22, when the carton is assembled into egg-containing shape.

Upon insertion of the tabs 22 into the slots 24, the projecting noses of the tabs will interfit with corresponding ends of the slots, and, on account of the resiliency of the cardboard and the relationship of the tabs and slots, will remain in such locked or interfitting relationship. At the same time, projections 26 and 28 are fitted into corresponding slots 30 and 32 respectively in the element 10, which slots are formed by cutting away portions of the egg-supporting depressions 16 as best shown in Figure 3. The tabs or projections 26 and 28 are formed integral with the material of the carton by cutting away certain parts of the adjacent portions of the bottom elements 12 and 14 as best shown in Figure 3, leaving the links to join these portions which, when doubled over into proper relationship form locking tabs of double thickness. These tabs, after passing through the flat egg-supporting element 10, cooperate with suitable corresponding slots 34 and 36 respectively formed in the line of juncture of the top elements 18 and 20. The last top flap 20 is locked in position with respect to the egg-supporting element 10 and the bottom shell member 12 by means of integral tabs 40 which extend into suitable corresponding slots 42 formed in the edges of the juxtaposed egg-receiving depressions 16 as best shown in Figure 3. In this manner, the entire carton can be interlocked and securely fastened by means of integral interfitting elements in a snug carrying relationship with the contained eggs, and, on account of the relative positioning and opposed action of the

locking noses or extensions of the tabs, cannot accidentally become loose or unfastened. Furthermore, the fact that the egg-containing depressions 16 can be set so closely adjacent each other on account of the staggered relationship of the slits 38 enables the provision of a carton which is shorter than ordinary and which, therefore, will conveniently fit into the ordinary wooden egg case, which is not true of previous cartons heretofore on the market.

Additionally, the absence of a tying string and appurtenances or of gummed tape and the like is a distinct advantage, inasmuch as, on account of the integral locking tabs, the carton is always ready for use and cannot be rendered valueless by the loss of a length of tying string or the like.

Additionally, a line of perforations 42 extends transversely of the carton, whereby the same may be conveniently broken in two for the retail sale of half a dozen eggs, if desired.

It will be further evident that on account of the double thickness of the locking tabs 26 and 28, an actual cushioning effect is obtained between adjacent eggs at these points, whereby breakage is eliminated, and this same action takes place at the points where the tabs 40 are joined with the flat element 10 and the bottom element 12. Obviously, any number of tabs 40 may be provided from two to six, and a corresponding variation in the number of the locking tabs 22 may be provided. The locking tabs 26 and 28 are preferably six all told, as the corresponding locking slots 32 can be very conveniently incorporated into the blank when die-cut, but this number may also be varied, if desired. Additionally, it will be noted that the locking tabs 26 have straight sides, while the locking tabs 28 are so formed with under-cut sides as to include fastening noses or projections which fit over the edges of the slots 32 and 36, whereby a suitable locking relationship results as best shown in Figures 3, 4 and 5. The straight-sided tabs 26 are provided for a convenient guiding of the corresponding portions together and are offset with relation to the corresponding slots 34, so that a longitudinal shift of the respective portions of the cartons immediately results, thereby providing the desired locking relationship.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and I, therefore, do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention:

1. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs.

2. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton and cooperating with the cuts.

3. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton, said locking means comprising tabs on the bottom shell portions and corresponding slots in the upper shell portions.

4. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton, said locking means comprising tabs on the bottom shell portions and corresponding slots in the upper shell portions, said tabs passing through the cuts for locking cooperation with the slots.

5. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton, said locking means comprising tabs on the bottom shell portions and corresponding slots in the upper shell portions, said tabs comprising doubled over links joining adjacent separated portions of the lower shell members.

6. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton, said locking means comprising tabs on the bottom shell portions and corresponding slots in the upper shell portions, said tabs comprising doubled over links joining adjacent separated portions of the lower shell members, certain of said tabs having locking noses.

7. An egg carton, comprising an unitary inner support and outer shell, the inner support consisting of a single layer, having depressions therein for the cushioning reception of eggs, and open cuts joining the depressions in juxtaposed pairs, and locking means integral with the outer shell portions of the carton, said locking means comprising tabs on the bottom shell portions and corresponding slots in the upper shell portions, said tabs comprising doubled over links joining adjacent separated portions of the lower shell members, certain of said tabs having locking noses, and other of said tabs provided with straight sides.

8. An egg carton, comprising an unitary inner support and outer shell integral therewith, the unitary inner support comprising a single layer of material having a plurality of depressions formed therein for the reception of eggs, and combined egg cushioning and locking means formed integral with the shell members for cooperation with said support element, the egg-supporting depressions being circular in form and defined by central cut-away portions, the central cut-away portions of adjacent depressions being joined by open cuts.

9. An egg carton, comprising an unitary inner support and outer shells integral therewith, the unitary inner support comprising a single layer of material having a plurality of depressions formed therein for the reception of eggs, combined egg cushioning and locking means formed integral with the shell members for cooperation with said support element and spaced integral links connecting the shell members, the egg-supporting depressions being circular in form and defined by central cut-away portions, the

central cut-away portions of adjacent depressions being joined by longitudinal open cuts, together with a line of perforations extending transversely of the carton for breaking the same into equal halves, those pairs of egg receiving depressions adjacent said perforated line being separated by a transverse space substantially twice the width of the corresponding spaces between the remaining depressions.

10. An egg carton composed of a single blank comprising two portions, integral links connecting the portions and means integral with the blank for assembling the same into a complete unit for containing a desired number of eggs for transportation and handling purposes, said means comprising a plurality of struck-up and struck-out locking tabs formed from certain of said links adapted to cooperate with corresponding locking slots formed in cooperating portions of the blank, certain of said locking tabs provided with integral noses extending in one direction, and other locking tabs having noses extending in the other direction, whereby advantage is taken of the natural resiliency of the material of the carton for a secure interlocking relationship of the parts about the eggs.

11. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues, said locking tongues comprising integral portions of the blank.

12. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues, said locking tongues comprising integral portions of the blank, and egg-surrounding elements adjacent the supporting element, said egg-surrounding elements comprising paired top and bottom members.

13. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues, said locking tongues comprising integral portions of the blank, and egg-surrounding elements adjacent the supporting element, said egg-surrounding elements comprising paired top and bottom members, the paired bottom members being joined by said locking tongues.

14. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues, said locking tongues comprising integral portions of the blank, and egg-surrounding elements adjacent the supporting element, said egg-surrounding elements comprising paired top and bottom members, the paired bottom members being joined by said locking tongues, and the paired top members having slots therein for the reception of said locking tongues.

15. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues, said locking tongues comprising integral portions of the blank, and egg-surrounding elements adjacent the supporting element, said egg-surrounding elements comprising paired top and bottom members, the paired bottom members being joined by said locking tongues, and the paired top members having slots therein for the reception of said locking tongues after same have been fitted into the depression cuts in the egg-supporting element.

16. An egg carton, comprising a single piece of material and including an egg-supporting element having slitted depressions therein, portions of said depressions being cut away for the reception of locking tongues for both preliminarily setting up the carton and finally closing the same, said locking tongues comprising integral portions of the blank at the middle and one end of same respectively.

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