

June 28, 1966

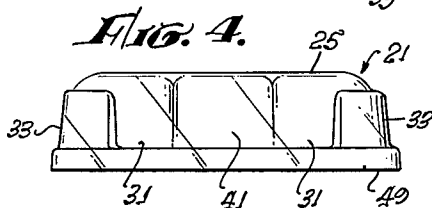
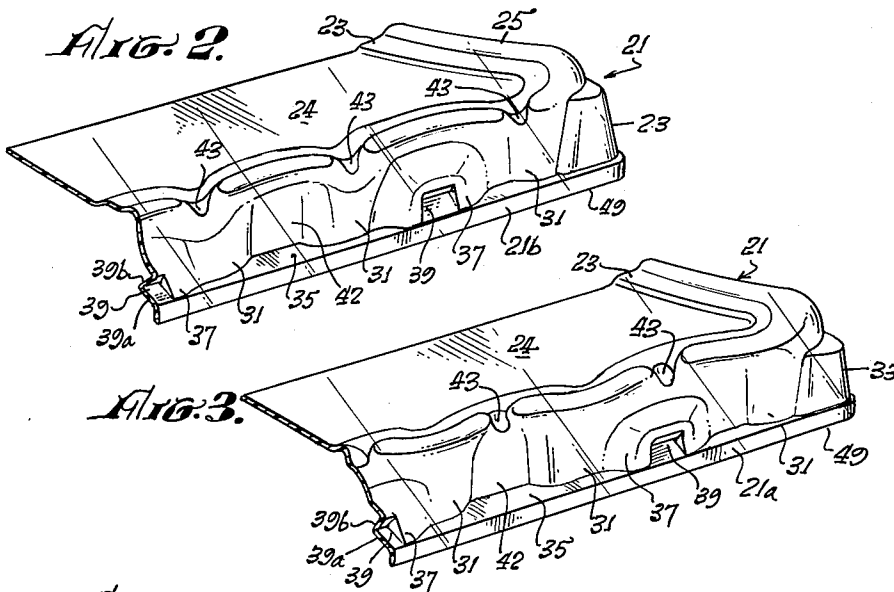
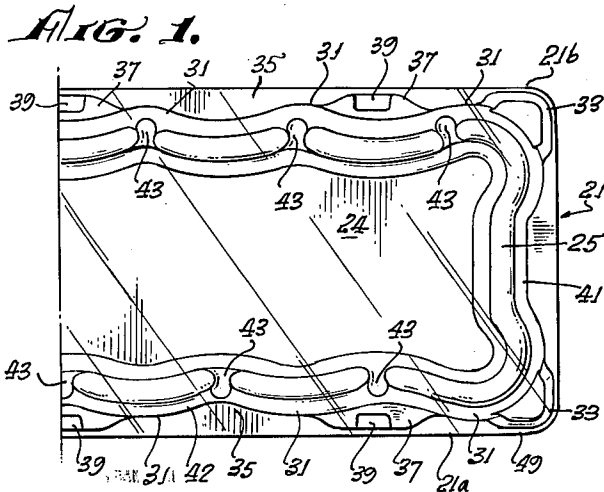
S. GREATMAN

3,258,187

CARTON WITH CAM-LATCHING LID

Filed March 29, 1965

2 Sheets-Sheet 1



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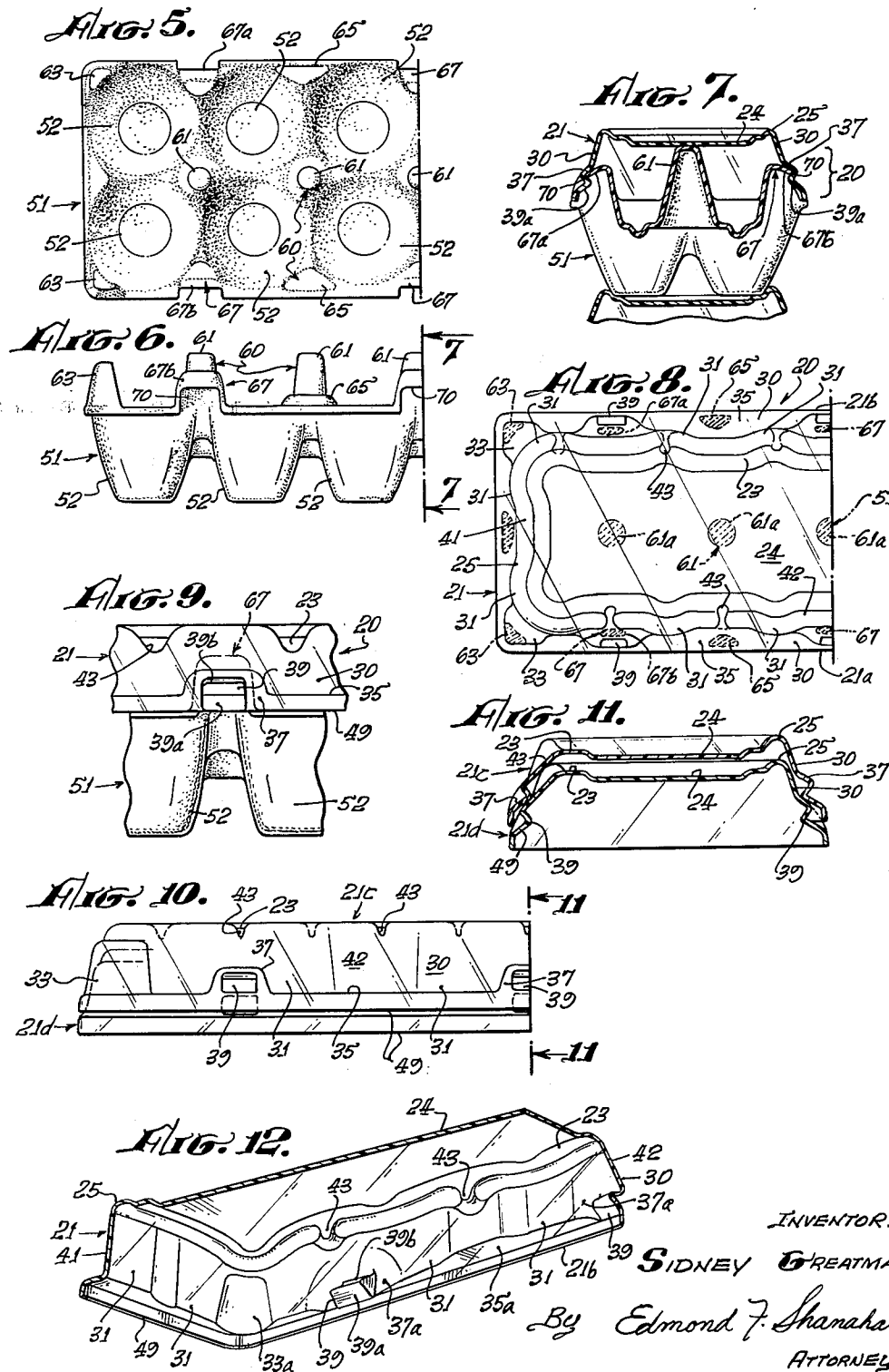
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CARTON WITH CAM-LATCHING LID

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Filed Mar. 29, 1965, Ser. No. 443,715

13 Claims. (Cl. 229-2.5)

This application is a continuation-in-part of my co-pending application, Serial No. 359,184, filed April 13, 1964, for a "Container with Cam-Latching Top."

This invention relates generally to display cartons for a plurality of fragile packaged objects, such as a dozen eggs, packed in a carton comprised of mating bottom and lid halves, each formed to provide separate cellular compartments for the packaged objects. The invention is particularly concerned with such a carton in which the bottom is made of a relatively thick-walled and rigid material such as molded paper pulp or plastic foam, usually having a varied wall thickness; while the top is made of a relatively thin-walled, resilient and transparent material, usually formed from a plastic sheet of uniform thickness.

More particularly, the invention relates to such a carton in which the lid and bottom are elongated and are formed with mating structural and latching parts along the opposite long sides, so that the resilience of the entire lid and the rigidity of the bottom co-act to produce a resilient latching action without resort to holes in either lid or bottom, and without resort to fragile deflectable projection. Preferably, said lids are formed to nest with one another without unwanted locking, prior to assembly with the bottoms, and to feed readily from a nested assembly of lids through a lidding machine on to successive bottoms.

A multi-celled egg carton is the most common application for such a design, but the utility of the invention is not restricted to eggs or to food, since it may be useful in the selling, transport, or storage, of a plurality of packaged objects of any kind, within a carton providing a cellular compartment for each object.

Heretofore, the mass production packaging of eggs has utilized a carton made entirely of molded paper pulp, the top and bottom being formed to provide two rows of six cells each to accommodate a dozen eggs. Such egg trays have proven themselves to be better protection for the eggs than the various cellular egg cartons constructed of cut and folded cardboard, and the like, and have practically displaced the non-molded types. However, like its predecessor, the all-pulp carton entirely conceals the packaged eggs from the view of the prospective purchaser. The purchaser cannot tell, from a mere visual inspection of the egg carton, or of a display of many such egg cartons, whether any of the eggs are broken, whether any are missing, whether they are large or small, and whether or not they are of a color and appearance which appear appetizing to him.

In this respect, the egg carton has not kept pace with many other food cartons employed in self-service grocery retailing. The display requirements of self-service grocery retailers, through whom most food is sold, has caused the development in recent years of many food cartons and containers employing transparent plastic tops, through which the customer may appraise for himself the size, color, and condition of the contained food, as well as making it possible to determine readily whether or not the carton contains a full count.

It has been proposed to package eggs in such a carton, combining a molded paper bottom with a transparent plastic lid, which mate with each other at an equatorial mating plane. In such a carton, the entire upper half of the egg may be inspected, not only from above but

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from the sides, when many such cartons are stacked in a filled condition.

Unfortunately, there are a number of points of conflict in design requirements for a carton for eggs or the like, constructed for housing the bottom half of the packaged objects in a molded paper pulp bottom, having substantial thickness and rigidity, while housing their upper half in a transparent plastic cover, which provides good visibility of the packaged objects. As a result, none of the designs of this type, heretofore proposed, has found wide market acceptance.

For example, in the all-pulp carton presently in general use, both lid and bottom could be formed in a single operation as a single unit, and joined entirely along one side with a paper pulp hinge. Closure means was provided by any of a variety of paper cover retainer constructions well known to those familiar with the design of paper cartons, and a paper seal was usually applied. However, when a transparent plastic lid is used, top and bottom must be formed entirely separately, and subsequently assembled one to the other.

The molded paper pulp bottom material and the transparent formed plastic lid material have radically different material properties. The molded pulp can be formed with many variations in thickness, so as to provide reinforcement in zones of stress. It is suited to the formation of cones, hollow posts, or columns, doubled-walled partitions, etc., but it is not well adapted to thin walls which are subjected to repeated flexing. Indeed, the molded paper carton functions best as a soft surfaced but rigid unit in which no part is intended to be deflected in normal use, since deflection will normally result in tearing of the fibers, weakening of the pulp structure, and deterioration of the piece. On the other hand, a molded pulp bottom employing double walls throughout most of its construction and designed for use in which no part undergoes any substantial bending or deflection, exhibits amazing strength and durability during repeated handling, and provides excellent protection for lightweight fragile objects such as eggs.

The transparent plastic is elastically resilient. It may be manually deformed with ease, but is toughly resistant to tearing (if not perforated) and will snap back into its original shape when a deforming force is removed. The plastic lid can be scalloped or corrugated around the side walls to provide it with a certain amount of crushing resistance to forces imposed from the top, but, in general, it is the molded paper bottom which must be relied on for protection of the eggs.

A combination of paper pulp bottom and transparent plastic top has presented an entirely new set of attachment problems. At first, the two components were formed with mating hinge means along one side and were then manually assembled. Since such cartons must be fabricated in the millions and at a cost of only a few pennies per carton, at most, even a small amount of manual labor on each carton makes its cost prohibitive. In addition, none of the hinge means found in the prior art have proven satisfactory in use.

A variety of other attachment means have been attempted. Most of these have involved an evolutionary development of the attachment means used in paper cartons or in all-plastic cartons. For example, units have been made with small molded plastic hooks adapted to project through holes in the molded paper carton. The difficulty with this type of construction has been that the molded paper pulp material does not wear well when subjected to the abrasive action of a hook on the side walls of a hole through the molded paper material. After only a relatively few uses, sometimes only one or two, the pulp material around the hole is so damaged that secure attachment is no longer possible.

Moreover, the plastic hooks formed in the lid material are inevitably fragile, since they must be long enough and thin enough to pass through a hole in the bottom. The most practical way of fabricating the transparent plastic lid is to blow-mold it from a thin sheet of plastic; any projecting hook or tube of thin diameter formed from such material is necessarily too weak to stand deflection more than once or twice.

A reversal in construction, using holes in the plastic lid, and upwardly projecting paper pulp hooks has proven equally unsatisfactory. The introduction of any holes into the plastic lid makes it vulnerable to tearing. Any design which relies on some deflection of the upwardly projecting pulp hook is unreliable because the paper pulp lacks any tolerance for resilient deflection.

A similar difficulty has been encountered by those who attempted to simply snap a lid flange over the edges of the pulp carton at the plane of mating between bottom and cover. The mating flange edges have merely disintegrated after a few uses, leaving the cover substantially unattached.

Naturally, the presence of any moisture substantially weakens the pulp, although it has no substantial effect on the plastic. Many designs of the prior art have attempted a variety of means of attachment by holes in the plastic, or by metal attachment means, or by adhesive. All have proven unsatisfactory for use in display cartons such as the egg carton described. Holes in the plastic, or use of metal attaching means, result in tearing of the plastic, despite its toughness, and the loosening of the attachment. Adhesives lose their adhesive quality after two or three uses.

Indeed, no satisfactory carton has been produced in which both top and bottom were complete upon being formed, did not require any further assembly, were readily snapped into attachment with each other without the use of any holes in either top or bottom, and which could be opened and closed repeatedly without destructive wear and tear, and without losing the security of attachment upon closure.

In my parent patent application, Ser. No. 359,184, all of the foregoing problems were solved, but an entirely new set of problems arose when it was attempted to develop automatic machinery for filling and closing the new carton. In order to be of maximum commercial utility, the bottom and lid design must be such that the lids, following fabrication, can be nested with each other, prior to use, without becoming so interlocked that denesting is difficult.

For example, where the plastic lids are blow-molded from bi-oriented polystyrene sheet, by far the most practical method of forming inexpensive lids, the cost per lid at the point of emergence from the blow-molding machine can be kept at a competitive value. However, as these fragile lids are stacked, they tend, in previous designs, to nest with irregular spacing, and to interlock with each other, in some instances, and to become damaged, bent, and torn, in being transported from the molding machine, stored, and then used at some distant egg-packing plant to cover cartons. Actual tests indicated that the cost of bringing a certain number of lids from molding machine to position on top of a bottom filled with a frozen eggs cost more than the cost of making the lids themselves.

Moreover, extensive testing has revealed that no plastic lid heretofore known could be handled by any reasonably practical form of automatic lidding machinery. Lidding machinery in the past has proven incapable of handling a delicate and resiliently deflectable plastic lid of the type herein described. It was found to be an essential requirement of newly invented lidding machinery, that the plastic lids be supplied from a stack retained in a supply magazine, with the stack of lids nested in precise spacing with respect to each other, so that simple and reliable mechanical devices could separate one lid at a

time from the magazine stack. It is essential to the reliable operation of the lidding machine that each single lid can be denested, usually from the bottom of the stack, without any unwanted snagging of the fixed lid above it.

Previously known designs, using holes or minute projecting hooks, have presented almost hopeless snarling problems for the lidding machine. Even the design of my parent application, Ser. No. 359,184, exhibited a tendency towards unwanted interlocking if pushed too tightly into nesting relationship. If sufficient pressure is applied, the identical inwardly-projecting latch hooks tend to slide over each other producing an interlock between one lid inside the other, which a lidding machine cannot handle by any practical means.

One of the major objects of the present invention, like that of the invention of my parent application, Ser. No. 359,184, is to provide a carton for eggs or the like, which is constructed of a molded bottom, utilizing such material as paper pulp, foam plastic, or the like; and a plastic lid, preferably blow-molded from a thin sheet of uniform thickness, in which combination great security of attachment between bottom and lid is achieved without resort to holes in either top or bottom and without resort to any fragile small protrusions from either lid or bottom.

However, a second and equally important major object of this continuation-in-part application is to provide such a lid which naturally falls into precisely spaced nesting, and reliably denests from a nested stack within the magazine of an automatic lidding machine.

It is a further object of the invention to achieve a security of attachment and a precise nesting without employing any structurally weak projections, without resort to any hinges, and without dependence on any manual operations in handling the lid from molding machine to final assembly with a bottom filled with eggs.

It is another object of the invention to provide the foregoing advantages in a cover and bottom combination which may be repeatedly opened and closed by unskilled and careless persons without delay or difficulty, and without deterioration in the attachment structure. A related object is to provide a carton in which the attachment parts of the paper pulp bottom are shielded from contact with the hands of the person who is removing or replacing the cover. Thus, the paper pulp structure, which is extremely vulnerable to moisture is not weakened in those parts upon which the carton relies for security of attachment.

Still another object of the invention is to provide a combination as described in which the protective strength of the transparent plastic top, which is necessarily somewhat inferior to the molded pulp bottom in compression strength, is reinforced by supporting columns included in the bottom structure, and by strengthening ridges in the plastic itself.

The carton of the new invention achieves the foregoing and many other objects and advantages by making use of the peculiar properties of both the non-resilient bottom, and the resiliently deformable lid. The bottom is formed with substantially rigid, double-walled partitions providing individual cellular compartments for the eggs, and upwardly projecting conical columns for internal support of the resilient lid. Some of these upwardly projecting columns are formed to function as latch hooks, but they are not required to undergo any deformation whatever during latching and unlatching operations. Instead, deformation, for latching and unlatching is achieved by lateral flexure of the long sides of the resilient lid.

The latch catches carried on the plastic lids of the invention are utterly unlike the fragile projections heretofore employed, since they do not need to be resiliently deflected; instead, the present invention employs relatively strong and rigid shoulders, which serve as catches under the upwardly projecting latch hook columns of the bottom.

The latch hooks are formed as upwardly converging

conical tubular members, which are disposed along the long sides of the bottom in outwardly facing pairs. In the preferred embodiment, firm locking engagement of the latch hooks with the catch shoulders on the interior of the lid is assured by adjacent seating shoulders on top and bottom, which face oppositely to the corresponding surfaces at which the latch engagement occurs, and which are vertically spaced from the latch-engaging plane, to assure security of attachment of the lid to bottom.

The introduction of the egg carton of the invention into egg packing plants has resulted in a major simplification and economy in the stocking of cartons and labels. Most egg packing plants must provide packaged eggs bearing house-brand labels for several different chain store customers. Heretofore, labeling was by printing on the top surface of the carton lid. Consequently, the egg packing plant had to store huge inventories comprised of many cartons, identical in every respect, except that they were printed with different brand names. Likewise different printed cartons have usually been employed for different sizes and qualities of eggs. Workers tending egg packing machines have usually worked with huge tiers of cartons, one tier for each retailing customer, immediately adjacent the egg-packing machine. The machine operator had to be ready to switch armloads of printed cartons, from hour to hour, as packing was carried out for different customers or different quantities. All this complexity is eliminated by the present invention. Nothing is printed on the lid or bottom of the carton of the present invention, to indicate brand name or quality. Instead, all this information is printed paper labels which are stored in convenient small stacks.

An automatic labeling machine, invented and designed especially for use with the carton of the present invention, is supplied as an accessory to the egg packaging machine. After the eggs are packed into the carton bottom, the bottom passes under the automatic labeling machine, which contains a stack of paper labels, and which automatically removes one paper label and places it on top of the eggs, prior to application of the transparent carton lid. The label is usually large enough to be clearly read through the lid, but small enough so as not to interfere with adequate inspection of the eggs through the transparent lid. Switching labels is easily accomplished by simply removing one small packet of labels from the labeling machine's supply magazine and replacing it with another small packet.

The present invention provides certain advantages in the application of the lid to the egg carton. A precisely spaced nested stack of lids are deposited in the magazine of an automatic lidding machine, which can be mounted as an auxiliary on the existing automatic egg-packaging machines used in the mass packing industry. As each bottom, having been filled with eggs, passes through the egg packaging machine, it first receives a label from the automatic labeling machine, and then passes to the automatic lidding machine, and is covered with a transparent lid.

The covered and labeled carton of eggs may be conveniently inspected by visual inspection at any time following lidding. This represents a vast improvement in quality of inspection over that which is presently possible with opaque lids. In these presently used all-pulp cartons, the carton must remain open in order that the contained eggs be inspected, but the lid must be handled by the inspector in order for him to glimpse the brand and quality labeling on its top, while the carton is still open. Of course, if inspection of the brand and quality on the top of the pulp lid is postponed until the carton is closed, the inspection can be done visually, but this second inspection gives no assurance that the eggs inside the carton (invisible now that the carton is closed) actually are as represented on the label.

After the cartons of eggs are removed from the egg packing machine, or automatically as they are discharged

from the egg packaging machine, the cartons are stacked, usually in stacks several wide, and with alternate layers of cartons disposed at ninety degrees with respect to each other, in stacks several feet high. The carton of the present invention has exhibited many superiorities over any previously known egg carton. Inspection of the condition of the contained eggs is possible through the transparent sides and ends of the lids, without disturbing or removing any individual egg carton from a stack or series of stacks which may contain hundreds of filled egg cartons. Inspection can be conveniently repeated at the point of delivery after truck transport, so that misunderstandings between the egg packager and the retail store about the condition or specification of delivered goods can be avoided.

It will be noted that the lids in the preferred form of the invention have a top contour which is specially formed to closely accommodate the base of the next pulp bottom above the lid in the stack of cartons. The cellular compartments of the pulp bottoms present twelve cell bases, which seat, around their outer edges, on a flat shoulder, provided for this purpose in the top of the lid, the bases being retained around their outer side walls by the closely fitting contours of the lids upwardly projecting peripheral shoulder.

In the event that broken eggs or rainwater produce unwanted liquid in a stack of cartons of the present invention, penetration of this liquid is limited, since each layer of cartons is given some moisture protection by the moisture-resistant plastic lids; this contrasts to the all-pulp carton, in which moisture is likely to be carried from carton to carton, by the contacting pulp surfaces.

An important advantage of the present invention is that it provides a method of sealing far superior to any of those heretofore known in egg packaging. In the past, seals have usually been in the form of glued paper seals applied at one or both sides of the lid. The contents of the carton could not be inspected without breaking the seal or ungluing it. On the other hand, unauthorized opening of the carton could often be concealed by moistening and resealing the unglued paper seal.

In the present invention, the preferred mode of sealing is applied by a sealing means mounted in the egg packaging machine between the filling of the bottom with eggs and the application of the transparent lid; the application of the sealing material may either precede, follow, or occur simultaneously with the placement of the label on the eggs by the automatic labeling machine.

A sealing material is in the form of a liquid adhesive which is applied to the tops of the central columns of the bottom (or to areas on the underside of the lid which will be contacted by these columns after lidding). While the sealing material is still moist, the lid is applied, and as drying occurs, an adhesive seal forms between the top of one or more columns and the underside of the lid. Since the lid is transparent, it is unnecessary to break the seal in order to inspect the contents of the carton. Also, the condition of the seal can be inspected from outside the carton. The lid cannot be removed without breaking all the seals on all of the bottom columns which contact the lid. Moreover, once the seal is broken, it is almost impossible to counterfeit the original seal; the second sealing will be revealed as an easily visible repair of the original seal.

The foregoing and many other advantages of the invention will be understood from the following description of one specific embodiment of the invention, when it is read in connection with the accompanying drawings, in which:

FIGURE 1 is a plan view, in approximately two-thirds of full scale, of the right half of a lid constructed according to the invention;

FIGURE 2 is a perspective view of one quarter of the lid of the invention, being that quarter which appears in the lower part of the illustration of FIGURE 1;

FIGURE 3 is a perspective view of one-quarter of a lid constructed according to the invention, being the quar-

ter seen in plan view in the upper half of the illustration of FIGURE 1;

FIGURE 4 is an end view of the lid of FIGURES 1 to 3;

FIGURE 5 is a plan view of the left half of a carton bottom designed to mate with the lid of FIGURES 1 to 4;

FIGURE 6 is a front elevational view of the carton bottom half illustrated in FIGURE 5;

FIGURE 7 is a sectional view of a bottom like FIGURE 5 and lid like FIGURE 1, viewed at a transverse central section indicated by the numeral 7—7 in FIGURE 5, and shown stacked on top of a fragmentarily illustrated lid;

FIGURE 8 is a plan view of the left half of a lid like that of FIGURES 1 to 4, but with most details removed in order to illustrate the locations at which the bottom of FIGURES 5 and 6 make contact with the undersides of the lid;

FIGURE 9 is a front elevational view of a small section of the egg carton of the invention, showing the lid latched to one of the latch columns of the bottom;

FIGURE 10 is a front elevational view of the left halves of two lids, showing the manner in which they nest one upon the other, prior to being combined with a carton bottom in a lidding machine;

FIGURE 11 is a transverse sectional view at the vertical plane indicated by the arrows 11—11 in FIGURE 10; and,

FIGURE 12 is a perspective view looking upwardly into the interior of one quarter of the lid, showing the nest-spacing shoulders which project downwardly into the interior of the lid.

The illustrated embodiment of an egg carton constructed in accordance with the invention is seen in sectional view in FIGURE 7, in which it is indicated by the numeral 20. However, the carton is best illustrated by illustrations of its two separate and only components, the resilient sheet plastic lid 21 (see the right-half plan view of FIGURE 1, and the end elevational view of FIGURE 4); and the substantially rigid molded bottom 51 (see the plan and front elevational left-half views of FIGURES 5 and 6, respectively). Only half views are used in the illustrations of FIGURES 1, 5, and 6 since the opposite half is an identical mirror image; illustration of the entire lid or bottom would add nothing to the disclosure and would unnecessarily increase the drawing area required. Also, illustrations of the assembled carton, with the lid snapped into position on the bottom, tend to conceal more than they reveal. FIGURES 7, 8, and 9 show the assembled lid and bottom in transverse cross section, plan view, and fragmentary front elevation, respectively. The important features of the lid and bottom are best understood by a description of them as separate components, followed by a description of their utility when filled with eggs, assembled, and stacked.

The right half plan view of FIGURE 1, and the one-quarter perspective views of FIGURES 2 and 3, reveal that the principal features of the top of the lid are a horizontal stacking ledge 23, a downwardly dished-plate structure 24, and a raised peripheral reinforcing shoulder 25.

It will be noted that all three of these features, ledge 23, dished-plate 24, and raised shoulder 25 follow the undulating outline of downwardly depending and outwardly flaring side walls 30. In the illustrated embodiment, these undulations perform several functions, but principally they follow the surface defined by the upper halves of twelve separate cellular compartments 52 (see FIGURES 5 and 6) into which the molded bottoms 51 are divided in order to accommodate twelve eggs.

However, cellular compartmentation to accommodate the eggs or other packaged objects is only one of several considerations accounting for the complex struc-

ture of side walls 30. The plan, front elevation and transverse sectional views of the bottom 51, seen in FIGURES 5, 6, and 7, respectively, show that the bottom is prominently featured by a plurality of upstanding vertical columns, formed of the molded bottom material in hollow cones or protuberances. The numeral 60 is used to designate these columns collectively, but it is important to distinguish between the four different types of columns which are actually employed:

Lid-support columns 61 are disposed in a row of five (in the particular embodiment) down the center of bottom 51. These columns push against the underside of the downwardly dished-plate 24 of lid 21, when the latter has been assembled to the bottom 51 as illustrated in the transverse sectional view of FIGURE 7.

Corner columns 63 are usually, but not necessarily, somewhat rectangular in cross-section downward, and project upwardly to provide some corner reinforcements. However, it will be appreciated that the height of these columns may vary all the way from mere protuberant stumps to the maximum height illustrated, depending on forming properties of the molded materials used in bottom 51, and also on adaptation to a particular package design.

Lid-seating columns 65 are mere low-elevation stumps in the preferred embodiment, and are distributed two on each of the long sides, and one on each end of the bottom 51, in order to positively locate against mating surfaces, to be described hereinafter, of the lid 21. Here again, it will be appreciated that the lid-seating columns might shrink to a mere flat plateau at the edge of the bottom 51, or be raised somewhat higher than the elevation illustrated, but preferably they establish a seating elevation, mating with the lid 21, which is lower than the elevation of the latching plane to be described hereinafter.

Latch columns 67 are disposed three on each long side of bottom 51, in three pairs which co-act in the manner to be described hereinafter. It will be seen that the two latch columns in a single pair, as for example, latch columns 67a and 67b are directly opposite each other transversely of the bottom 51, and have outwardly facing latch openings 70.

The side walls 30 are formed with alternate outwardly and inwardly displaced wall portions which provide housing shells closely accommodating the packaged objects and in addition are formed with shells to accommodate the corner columns 63 and latch columns 67. The outwardly displaced wall structures may be described for the purposes of this specification and claims as shells (31, 33, and 37), and the inwardly displaced walls between shells may be described as compartment partitions 32.

Corner column shells 33 provide internal recesses 33a (see FIGURE 12) which closely accommodate the corner columns 63.

Compartment shells 31 and partitions 32 mate with bottom compartments 52 to provide close protective accommodation for the eggs.

Latch column shells 37 provide an internal recess 37a (see FIGURE 12) which closely accommodate a latch column 67.

The lid-seating shoulders 35 form a flat undersurface 35a (see FIGURE 12) which seats directly on the tops of the low elevation lid-seating columns 65.

Latching of the lid 21 to the bottom 51 is accomplished by engagement between catches 39, one of which projects inwardly from the interior of each of the latch column shells 37, as seen in FIGURE 12. FIGURES 7 and 9 illustrate how the catch 39 locks under the lips 68 of the column 67.

It will be noted from the front elevational fragmentary view of FIGURE 9, that the catch 37 is closely received within a latch column 67, which is seen in FIGURE 9 in dashed outline. Important features of catch 39 are its upwardly and inwardly inclined lower surface 39a, which

serves as a camming surface during the operation of lidding; and its upper catch surface 39b, which curves downwardly to a horizontal tangent in the preferred embodiment.

It will also be noted that neither the latch column 67 nor the catch 37 need have any resilience whatever. Neither is intended to be deflected during latching and unlatching of the lid 21 to the bottom 51. It is the entire long sides 21a and 21b (see FIGURE 1) which are resiliently deformably outwardly to permit latching and unlatching.

FIGURE 11 is a transverse sectional view of two lids 21c and 21d, identical to the lid 31 of FIGURE 1, and to each other, but illustrated as they appear in nested position. The importance of lid nesting, with precise positioning, and precise nest spacing, has already been emphasized; the lids must be nested for compact storage and transportation; they must nest at a precise spacing in order to denest properly in an automatic lidding machine. Although only two nested lids 21c and 21d are illustrated, it will be appreciated that the usual nested stack will extend vertically for dozens of lids.

Since all the lids are identical, being formed in an identical mold, and since they are resilient and flexible, they could be deformed into nesting surface to surface, with substantially no spacing between them, if all the lids are oriented in the same direction. In order to achieve the precisely spaced nesting illustrated in FIGURE 11, the lids must be formed with nest-locating and nest-spacing construction to be described hereinafter, and each alternate lid must be oppositely oriented from its neighbors.

The sliding of one lid into precise nesting position on another, so far as longitudinal and transverse locations are concerned, is accomplished by means of inclined nesting planes 41 at the ends, and 42 at the sides. In the particular embodiment illustrated, there are two inclined planes 42 on each side of the lid 21, and one inclined nesting plane 41 on each end.

Precise nest spacing is achieved by means of nest-spacing shoulders 43 formed in the lids 21 and projecting inwardly as seen in the interior perspective view of FIGURE 12. The nest-spacing shoulders 43 are distributed along the long sides 21a and 21b of the lid, and intersect peripheral reinforcing shoulder 25.

It is important that the nest-spacing shoulders be disposed asymmetrically along the long sides of lid 21 so that when one lid is switched end for end with respect to the other, the nest-spacing shoulders seat on the peripheral reinforcing shoulder 25 of the next lower lid as illustrated in FIGURE 11. In the preferred embodiment illustrated, it will be seen from FIGURES 1, 2, and 3 that one side of the lid 21 has six nest-spacing shoulders 43 (one in the side of each of the compartment shells 31 as illustrated in FIGURE 2), and the other side has only five nest-spacing shoulders (one centered over each of the inwardly displaced partitions 32, as illustrated in FIGURE 3).

It is a preferred form of the invention to employ nest-spacing shoulders which are substantially transverse, and which seat on substantially longitudinal shoulders upwardly projecting from the next lid beneath. However, it will be appreciated that a great variety of asymmetrical arrangements of nest-spacing shoulders could be employed in conjunction with the alternate opposite orientation of nested lids. Furthermore, where alternate opposite orientation is undesirable for some reason, and there is little or no danger of the nested lids being subjected to sufficient stacking pressure so as to produce unwanted interlocking, a more approximate nest spacing might be accomplished simply by relying on projections such as the nesting shoulders 43 or the catches 39, which offer some resistance to excessive nesting.

A slightly flaring skirt 49 downwardly depends around the lower periphery of lid 21. This skirt is not so long

as to interference with lid nesting; indeed, as may be observed from FIGURE 11, the skirt height corresponds very nearly to the nest-spacing distance. Nevertheless, when the lid 21 is actually in place on bottom 51, the skirt 49 produces substantial closure, as seen in FIGURES 7 and 9.

An inspection of the details of the bottom 51, illustrated in FIGURES 5, 6, 7, and 9 reveal that the various columns 60 are formed substantially as inverted hollow cones. This type of construction provides the greatest structural strength in a bottom molded out of paper pulp, stiff plastic foam, or similar material. Also, the compartments 52 are separated by partitions 55, which are seen to be double-walled in FIGURES 6, 7 and 9.

FIGURE 8 represents a plan view of one-half, the left half, of an assembled carton 20. It will be seen through the transparent lid 21 that the corner columns 63, the lid support column 61, the latching columns 67, and the lid-seating column 65, all make contact with the under-surface of lid 21. These points of contact make convenient locations for the application of an adhesive or sealing compound. For example, such a compound may be applied to the tops of lid support column 61 just before the lid 21 is applied to the bottom 51. Such a sealing contact may be designated in FIGURE 8 by the numeral 61a. Any compound which will reveal subsequent unsealing may be employed. For example, an adhesive material which dries into a hard seal within a few minutes will be seen through the transparent lid 21; if it is intact, it is an assurance that the carton has not been opened since the eggs were originally packed. However, if someone has attempted to interchange eggs, or otherwise tamper with the contents of the carton, a broken seal will be visible through the transparent seal 21.

The design of the preferred embodiment illustrated adapts very well to the stacking of full cartons, as may be seen from FIGURE 1. The bottoms of the compartments 52 seat on the stacking ledge 23 and are firmly held in place around their edges by the shoulder 25.

The lid-support columns 61 co-operate with the downwardly dished-plate structure 24 to urge the sides 21a and 21b into latching engagement, particularly, when there is a downward pressure on the sides of the lid 21, either from parts of a lidding machine which press on the reinforcing shoulder 25, or from the weight of egg cartons 20 stacked above the lid 21.

It is an important preferred feature of the invention to insure security of latching by spacing the elevation of the latching plane at lips 68 above the elevation of the tops of the lid-seating column 65, a distance which closely corresponds to the distance between the catch 39 and the seating shoulder 35a. There must be just enough tolerance to permit latching and unlatching, but the fit should be tight enough so that unlatching will not occur unless someone uses his fingers to laterally deform lid sides 21a and 21b outwardly.

It will be noted that the latching arrangements are distributed along the two long sides of an elongated carton, and that the latch columns 67 are alternated with the lid-seating column 65.

Also, a peripheral skirt 49 receives substantial support at closely spaced intervals along its entire length, because of bearing points against the sides of the various side columns 63, 65, and 67.

The cam-contoured shape of the catches 39 greatly facilitates latching. As the lid 21 is pressed down onto the bottom 51, the bearing of the upper ends of the latching columns 67 against the camming surfaces 39a cause a smooth outward deformation of the sides 21a and 21b, until latching position is reached, until the catches 39 suddenly spring into the latch openings 70.

While I have described one preferred specific embodiment in great detail including its best presently known application in the packaging of exactly one dozen eggs,

it will be understood that the foregoing description, so far as its details are concerned is for the purpose of explaining the invention only, and not for the purpose of restricting the invention to the preferred embodiment illustrated. On the contrary, it is intended to claim as my invention all those variations, simplifications and modifications which fall within the scope of the appended claims.

I claim:

1. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating zone intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 - an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 - walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 - a plurality of hollow vertical columns upwardly projecting above said mating zone from said side walls of said compartments, and including lid-support columns for bearing against the underside of said lid, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook structures;
 - and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 - a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;
 - downwardly extending side walls permitting the resilient flexing of the long side walls of said lid in a laterally outward direction;
 - catch shoulders formed in said long side walls of said lid, and inwardly projecting in pairs to make locking engagement with said hook structures, whereby said lid can be snapped into tightly latched closed position by resilient outward deflection of its side walls by engagement with said latch columns as said lid is moved toward closure.
2. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating zone intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 - an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 - walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 - a plurality of hollow vertical columns upwardly projecting above said mating zone from said side walls of said compartments, and including lid-support columns for bearing against the underside of said lid, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook structures;
 - and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 - a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;
 - a plurality of downwardly projecting interior nesting shoulders;
 - downwardly extending side walls permitting the resilient flexing of the long side walls of said lid in a laterally outward direction;
 - catch shoulders formed in said long side walls of

said lid, and inwardly projecting in pairs to make locking engagement with said hook structures, whereby said lid can be snapped into tightly latched closed position by resilient outward deflection of its side walls by engagement with said latch columns as said lid is moved toward closure.

3. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 - an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 - walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 - a plurality of hollow vertical columns upwardly projecting above said mating plane from said side walls of said compartments, and including lid-support columns for bearing against the underside of said lid, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hooks;
 - and an elongated lid formed of relatively thin, transparent, and resilient flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 - a top formed with a downwardly dished plate on the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;
 - downwardly extending side walls permitting the resilient flexing of the long side walls of said lid in a laterally outward direction;
 - catch shoulders formed in said long side walls of said lid, and inwardly projecting in pairs to make locking engagement with said hook structures, whereby said lid can be snapped into tightly latched closed position by resilient outward deflection of its side walls by engagement with said latch columns as said lid is moved toward closure.
4. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 - an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 - walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 - a plurality of hollow vertical columns upstanding from said walls above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being oppositely paired with outwardly facing openings;
 - and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 - a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;
 - a raised peripheral reinforcing shoulder around the periphery of said top, said shoulder following an undulating outline;
 - undulating side walls depending and downwardly diverging from said reinforcing shoulder, outward undulations of said side walls forming interior recesses to mate with said bottom com-

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partments in the accommodation of packaged objects;

a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a nested assembly of said lids, said shoulders being asymmetrically arranged in opposite disposition;

and inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, the upper sides of said catches being formed to spring into catchment within said latch columns when said lid seats on said bottom.

5. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:

an elongated bottom formed of relatively thick and rigid material, which bottom comprises:

walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;

a plurality of hollow vertical columns upstanding from said walls above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being oppositely paired with outwardly facing openings;

and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:

a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;

a raised peripheral reinforcing shoulder around the periphery of said top, said shoulder following an undulating outline;

undulating side walls depending and downwardly diverging from said reinforcing shoulder, outward undulations of said side walls forming interior recesses to mate with said bottom compartments in the accommodation of packaged objects;

a plurality of downwardly diverging inclined planes in said walls, said planes being disposed in pairs on opposite sides of said lid and providing guide planes for sliding said lids into nesting position with each other;

a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a nested assembly of said lids, said shoulders being asymmetrically arranged in opposite disposition;

a downwardly depending flange skirt around the lower peripheral edge of said lid, for mating closure with said bottom at said mating plane;

a plurality of inwardly projecting seating shoulders formed in the sides of said lid around the lower periphery thereof, above said skirt, for seating on said bottom;

and inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is

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pressed on to said bottom, the upper sides of said catches being formed to spring into catchment within said latch columns when said lid seats on said bottom, and the tops of at least some of said lid-support columns press against the underside of said dished plate, to exert a resilient latching force on said lid.

6. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:

an elongated bottom formed of relatively thick and rigid material which bottom comprises:

walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;

a plurality of hollow vertical columns upstanding from said walls above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom, and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being oppositely paired with outwardly facing openings;

and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:

a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of at least some of said lid-support columns;

a stacking ledge around said downwardly dished plate for support of the adjacent bottom of a like carton above said lid, when a plurality of said cartons are vertically stacked;

a raised peripheral reinforcing shoulder around the periphery of said top, said shoulder following an undulating outline to accommodate the cellular constructions of an adjacent bottom on said stacking ledge;

undulating side walls depending and downwardly diverging from said reinforcing shoulder, outward undulations of said side walls forming interior recesses to mate with said bottom compartments in the accommodation of packaged objects;

a plurality of downwardly diverging inclined planes in said walls, said planes being disposed in pairs on opposite sides of said lid and providing guide planes for sliding said lids into nesting position with each other;

a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a nested assembly of said lids, said shoulders being asymmetrically arranged in opposite disposition;

a downwardly depending flange skirt around the lower peripheral edge of said lid, for mating closure with said bottom at said mating plane;

a plurality of inwardly projecting seating shoulders formed in the sides of said lid around the lower periphery thereof, above said skirt, for seating on said bottom;

and inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is pressed on to said bottom, the upper sides of said catches

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being formed to spring into catchment within said latch columns when said lid seats on said bottom, and the tops of at least some of said lid-support columns being adapted to press against the underside of said dished plate, to exert a resilient latching force on said lid.

7. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, and thereby form a plurality of cellular compartments for closely accommodating packaged objects, which carton is comprised of:

- an elongated bottom formed of relatively thick rigid material and including:
 - upwardly extending side walls comprising partitions forming a plurality of compartments, upstanding hollow columns for providing internal support to a lid, at least some of said columns providing central support to a lid;
 - upstanding hollow latch columns located in opposing pairs on opposite long sides of said elongated bottom, said latch columns being formed to provide outwardly overhanging hook means at a latching plane spaced above said mating plane,
 - and an elongated lid fitting over said bottom and mating for closure with it at said mating plane, said lid being formed of a sheet of relatively thin and resiliently flexible material, and including:
 - a substantially horizontal top disposed over the packaged objects, said top being formed with a downwardly dished plate along its central portion for bearing on the upper ends of said central support columns when said lid is in position on said bottom,
 - enclosing walls downwardly diverging from said top, said side walls being corrugated into alternate ridges and grooves, the ridges forming interior recesses mating with said bottom compartments and adapted to accommodate packaged objects,
 - a skirt on the lower periphery of said lid downwardly depending from said lid-seating plane, to provide substantial closure with said bottom;
 - an upwardly projecting reinforcing shoulder formed around the periphery of said substantially horizontal top, said upwardly projecting shoulder following an undulating path corresponding to said corrugated side walls;
 - catch shoulders formed in the long side walls of said lid and inwardly projecting in pairs at said latching plane to make locking engagement with said latch columns, whereby said top can be snapped into a tightly latched closed position by resilient outward deflection of its side walls;
 - nesting planes formed in side walls and downwardly diverging in pairs on opposite sides of said lid at at least some of said grooved parts of said side walls, said stacking planes being adapted to smoothly receive in nesting contact a similar lid;
 - and nest-spacing shoulders formed in the top portions of said lid, and forming interior downwardly projecting abutments disposed substantially transversely to said reinforcing shoulder, and adapted to seat, on the reinforcing shoulder of an adjacent nested lid.

8. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, and thereby form a plurality of cellular compartments for closely accommodating packaged objects, which carton is comprised of:

- an elongated bottom formed of relatively thick rigid material and including:
 - upwardly extending side walls comprising partitions forming a plurality of compartments, upstanding hollow columns for providing internal

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support to a lid, at least some of said columns providing central support to a lid;

upstanding hollow latch columns located in opposing pairs on opposite long sides of said elongated bottom, said latch columns being formed to provide outwardly overhanging hook means at a latching plane spaced above said mating plane,

lid-seating structures disposed along the upper periphery of said bottom between said latch columns said seating structures having substantially horizontal seating surfaces located at a lid-seating plane above said mating plane, but below said latching plane;

and an elongated lid fitting over said bottom and mating for closure with it at said mating plane, said lid being formed of a sheet of relatively thin and resiliently flexible material, and including:

- a substantially horizontal top disposed over the packaged objects, said top being formed with a downwardly dished plate along its central portion for bearing on the upper ends of said central support columns when said lid is in position on said bottom,

- enclosing walls downwardly diverging from said top, said side walls being corrugated into alternate ridges and grooves, the ridges forming interior recesses mating with said bottom compartments and adapted to accommodate packaged objects,

- a skirt on the lower periphery of said lid downwardly depending from said lid-seating plane, to provide substantial closure with said bottom;

- a seating shoulder formed in said lid near said skirt for seating on said lid-seating structures, an upwardly projecting reinforcing shoulder formed around the periphery of said substantially horizontal top, said upwardly projecting shoulder following an undulating path corresponding to said corrugated side walls;

- catch shoulder formed in the long side walls of said lid and inwardly projecting in pairs at said latching plane to make locking engagement with said latch columns, whereby said top can be snapped into a tightly latched closed position by resilient outward deflection of its side walls;

- nesting planes formed in said side walls and downwardly diverging in pairs on opposite sides of said lid at at least some of said grooved parts of said side walls, said stacking planes being adapted to smoothly receive in nesting contact a similar lid;

- and nest-spacing shoulders formed in the top portions of said lid and forming interior downwardly projecting abutments disposed substantially transversely to said reinforcing shoulder, and adapted to seat, on the reinforcing shoulder of an adjacent nested lid.

9. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, and thereby form a plurality of cellular compartments for closely accommodating packaged objects, which carton is comprised of:

- an elongated bottom formed of relatively thick rigid material and including:

- upwardly extending side walls comprising partitions forming a plurality of compartments, upstanding hollow columns for providing internal support to said lid;

- upstanding hollow latch columns located in opposing pairs on opposite long sides of said elongated bottom, said latch columns being formed

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to provide outwardly overhanging hook means at a latching plane spaced above said mating plane,
 and an elongated lid fitting over said bottom and mating for closure with it at said mating plane, said lid being formed of a sheet of relatively thin, and resiliently flexible material, and including:
 a substantially horizontal top disposed over the packaged objects, said top being formed with a downwardly dished plate along its central portion for bearing on the upper ends of said central support columns when said lid is in position on said bottom,
 enclosing walls downwardly diverging from said top, said walls being corrugated into alternate ridges and grooves, the ridges forming interior recesses mating with said bottom compartments and adapted to accommodate packaged objects,
 an upwardly projecting reenforcing shoulder formed around the periphery of said substantially horizontal top, said upwardly projecting shoulder following an undulating path corresponding to said corrugated side walls;
 catch shoulders formed in the long side walls of said lid and inwardly projecting in pairs at said latch plane to make locking engagement with said latch columns, whereby said top can be snapped into a tightly latched closed position by resilient outward deflection of its side walls;
 nesting planes formed in said side walls and downwardly diverging in pairs on opposite sides of said lid at at least some of said grooved parts of said side walls not occupied by said latch means, said stacking planes being adapted to smoothly receive in nesting contact a similar lid;
 and nest-spacing shoulders formed in the top portions of said lid, and forming interior downwardly projecting abutments adapted to seat on the reenforcing shoulder of an adjacent nested lid, said nest-spacing abutments being disposed in the grooves above one side of said lid, and above the ridges on the other side, to effect spaced nesting when said lids are nested in alternately opposite longitudinal disposition.

10. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 a plurality of hollow vertical columns disposed around each of said compartments, and upstanding from the side walls thereof above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom,
 and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook openings, and being disposed in opposite facing pairs;
 and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 a raised peripheral reenforcing shoulder around the periphery of said top, said shoulder following an undulating outline to accommodate the stacking of an adjacent bottom on said stacking ledge;
 undulating side walls depending and downwardly diverging from said reenforcing shoulder,

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a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a series of said lids in nested assembly, said shoulders being asymmetrically arranged on the opposite long sides of said lid so as to be non-coincidental with each other when said lids are nested in alternate opposite disposition;
 inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is pressed on to said bottom, and the upper sides of said catches being formed to spring into catchment within the hook openings of said latch columns, when said lid seats on said bottom, and the tops of said lid-support columns press against the underside of said dished plate, to exert a resilient latching action on said lid structure.

11. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:
 an elongated bottom formed of relatively thick and rigid material, which bottom comprises:
 walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;
 a plurality of hollow vertical columns disposed around each of said compartments, and upstanding from the side walls thereof above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom,
 lid-seating columns disposed along the side walls of said bottom for seating against the lower side walls of said lid;
 and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook openings, and being disposed in opposite facing pairs;
 and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:
 a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of said lid-support columns;
 a raised peripheral reenforcing shoulder around the periphery of said top, said shoulder following an undulating outline to accommodate the stacking of an adjacent bottom on said stacking ledge;
 undulating side walls depending and downwardly diverging from said reenforcing shoulder;
 a plurality of downwardly diverging inclined planes formed in said walls and disposed in pairs on opposite sides of said lid and providing guide planes for sliding said lids into nesting assembly with each other;
 a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a series of said lids in nested assembly, said shoulders being asymmetrically arranged on the opposite long sides of said lid so as to be non-coincidental with each other when said lids are nested in alternate opposite disposition;

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a plurality of inwardly projecting seating shoulders formed in the sides of said lid around the lower periphery thereof for seating on said lid-seating columns;

inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is pressed on to said bottom, and the upper sides of said catches being formed to spring into catchment within the hook openings of said latch columns, when said lid seats on said bottom, and the tops of said lid-support columns press against the underside of said dished plate, to exert a resilient latching action on said lid structure.

12. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:

an elongated bottom formed of relatively thick and rigid material, which bottom comprises:

walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;

a plurality of hollow vertical columns disposed around each of said compartments, and upstanding from the side walls thereof above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom,

lid-seating columns disposed along the side walls of said bottom for seating against the lower side walls of said lid;

and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook openings, and being disposed in opposite facing pairs;

and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:

a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of said lid-support columns;

a raised peripheral reenforcing shoulder around the periphery of said top, said shoulder following an undulating outline to accommodate the stacking of an adjacent bottom on said stacking ledge; undulating side walls depending and downwardly diverging from said reenforcing shoulder,

a plurality of downwardly diverging inclined planes formed in said walls and disposed in pairs on opposite sides of said lid and providing guide planes for sliding said lids into nesting assembly with each other;

a plurality of nest-spacing shoulders formed on each of two opposite long sides of the said elongated lid, to project downwardly from the interior of the top of said lid, to establish nest-spacing of a series of said lids in nested assembly, said shoulders being asymmetrically arranged on the opposite long sides of said lid so as to be non-coincidental with each other when said lids are nested in alternate opposite disposition;

a downwardly depending flange skirt around the lower peripheral edge of said lid, for mating with said bottom at said mating plane;

a plurality of inwardly projecting sealing shoulders formed in the sides of said lid around the

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lower periphery thereof for seating on said lid-seating columns;

inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is pressed on to said bottom, and the upper sides of said catches being formed to spring into catchment within the hook openings of said latch columns, when said lid seats on said bottom, and the tops of said lid-support columns press against the underside of said dished plate, to exert a resilient latching action on said lid structure.

13. A display carton for eggs and like objects, wherein lid and bottom parts mate for closure at a mating plane intermediate between the top and bottom of the packaged objects, which carton is comprised of:

an elongated bottom formed of relatively thick and rigid material, which bottom comprises:

walls forming a plurality of cellular compartments for accommodating the lower parts of packaged objects;

a plurality of hollow vertical columns disposed around each of said compartments, and upstanding from the side walls thereof above said mating plane, and including lid-support columns for bearing against the underside of the central area of a lid over said bottom,

corner columns for projecting upwardly into the interior of the corners of said lid;

lid-seating columns disposed along the side walls of said bottom for seating against the lower side walls of said lid;

and a plurality of latch columns on each of the long side walls of said bottom, said latch columns being formed with outwardly facing hook openings, and being disposed in opposite facing pairs;

and an elongated lid formed of relatively thin and resiliently flexible material, and mating for closure with said bottom at said mating plane, said lid including:

a top formed with a downwardly dished plate in the central portion, said plate being adapted to rest on the upper ends of said lid-support columns, and a stacking ledge around said downwardly dished plate for support of the adjacent surfaces of the bottom of a like carton above said lid; when a plurality of said cartons are vertically stacked;

a raised peripheral reenforcing shoulder around the periphery of said top, said shoulder following an undulating outline to accommodate the stacking of an adjacent bottom on said stacking ledge;

undulating side walls depending and downwardly diverging from said reenforcing shoulder, outward undulations of said side walls forming interior recesses to mate with said bottom compartments in the accommodation of packaged objects, and other outward undulations of said side walls forming interior recesses for the accommodation of said corner columns and said latching columns;

a plurality of downwardly diverging inclined planes formed in said walls and disposed in pairs on opposite sides of said lid and providing guide planes for sliding said lids into nesting assembly with each other;

a plurality of nest-spacing shoulders formed on each of two opposite long sides of said elongated lid, to project downwardly from the in-

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terior of the top of said lid, to establish nest-spacing of a series of said lids in nested assembly, said shoulders being asymmetrically arranged on the opposite long sides of said lid so as to be non-coincidental with each other when said lids are nested in alternate opposite disposition;

- a downwardly depending flange skirt around the lower peripheral edge of said lid, for mating with said bottom at said mating plane;
- a plurality of inwardly projecting seating shoulders formed in the sides of said lid around the lower periphery thereof for seating on said lid-seating columns;
- inwardly projecting catch members formed in the side walls of said lid and mating with each of said latch columns, each of said catch members having a downwardly and outwardly inclined plane undersurface to function as a cam surface and resiliently deform the long sides of said lid outwardly when said lid is pressed on to said

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bottom, and the upper sides of said catches being formed to spring into catchment within the hook openings of said latch columns, when said lid seats on said bottom, and the tops of said lid-support columns press against the underside of said dished plate, to exert a resilient latching action on said lid structure.

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