

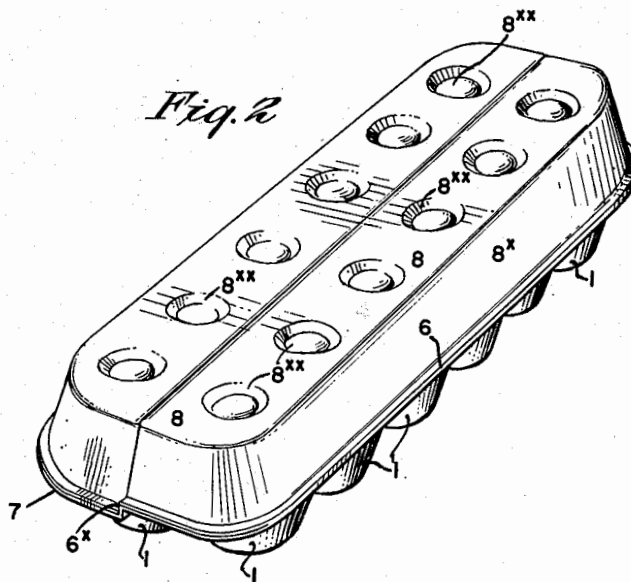
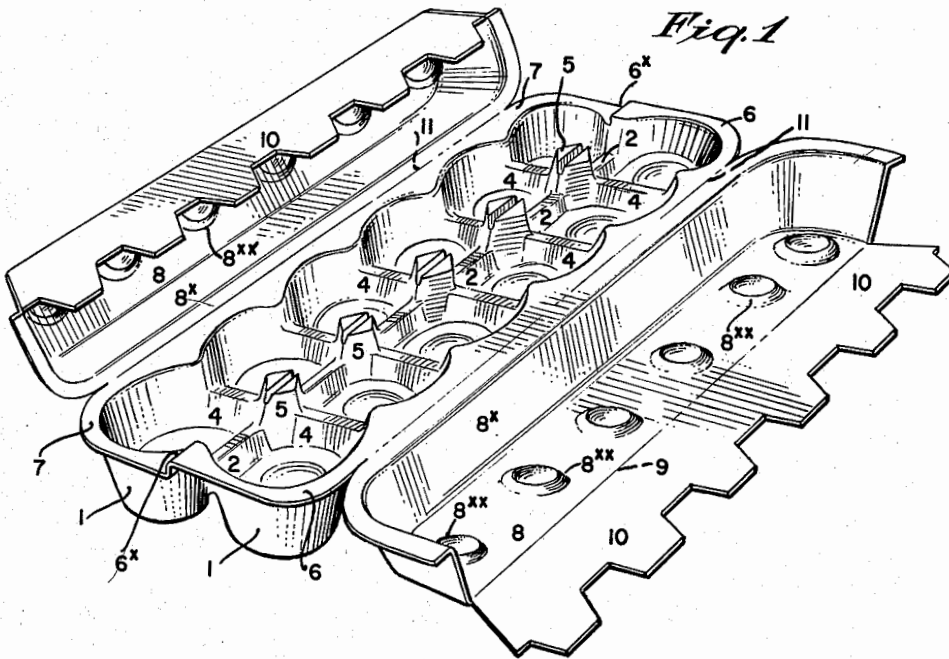
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MOLDED PULP ARTICLE

2,634,039

Filed June 10, 1947

2 SHEETS—SHEET 1



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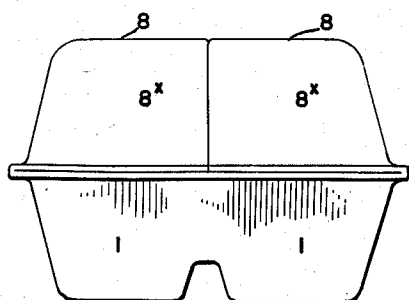
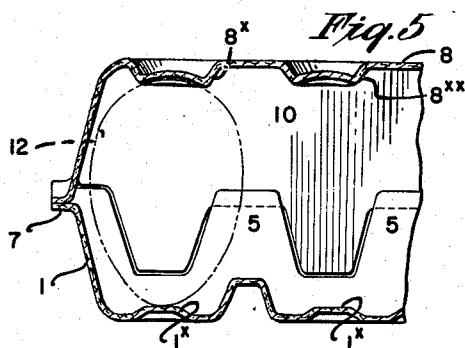
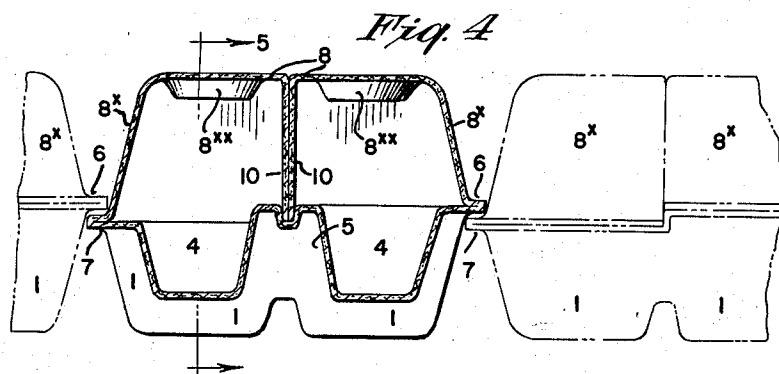
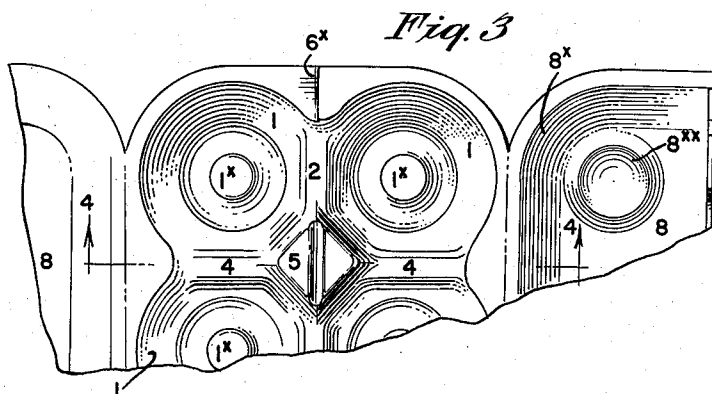
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MOLDED PULP ARTICLE

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2 SHEETS—SHEET 2



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MOLDED PULP ARTICLE

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6 Claims. (Cl. 229—15)

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This invention relates to molded pulp containers adapted to protect fragile articles, particularly eggs, both in the shipping thereof, particularly in standard egg cases, and in the retail packaging of such articles.

In the shipping or storage of eggs it has been customary to pack them in crates, each crate holding 30 dozen eggs. The case has a vertical division wall and hence has two compartments, each containing 15 dozen eggs, arranged in 5 tiers or layers, 3 dozen in each layer of each compartment. It has heretofore been customary to support each layer by means of a sheet known as an "egg flat," and to separate the 36 eggs in each layer by inter-fitted strips of paper board commercially known as "fillers."

With this method of packing, it has been customary for the retailer to unpack the eggs from a crate and re-pack them in retail cartons, each carton customarily holding one dozen eggs. These retail cartons do not have the strength and crushing resistance to withstand normal handling in shipment, and involve an added cost to the retailer.

It is an important object of the present invention to provide a molded pulp carrier or carton for eggs and other fragile articles, which will be simple in construction, which is adapted as the retail carton itself, and which may be assembled in multiple within the standard crate to hold the usual number of 30 dozen eggs, when eggs are held by the cartons. The carton will give superior protection to the eggs in shipment, and at the same time will serve as the retail container, so that the retailer is saved the cost of the usual retail container, as well as the labor of re-packing.

The invention will be described with reference to the accompanying drawings, in which:

Figure 1 is a perspective view showing an embodiment of the invention with the left hand cover member raised and folded, ready for final placement, the right hand cover member occupying its normal position, preliminary to the insertion of eggs or other fragile articles;

Figure 2 is a perspective view showing the container closed;

Figure 3 is an enlarged fragmentary view showing one end of the container;

Figure 4 is a vertical section on the line 4—4 of Figure 3;

Figure 5 is a fragmentary vertical section on the line 5—5 of Figure 4;

Figure 6 is an end elevation of the closed container.

Referring to the drawings, it will be contemplated that the complete structure will be unitary and made of paper pulp in accordance with well known practice. It consists of a body member which is formed, in the present embodiment, with

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two rows of cups, six in number as to each longitudinal row, the cups being indicated at 1. Each pair of opposed transversely extending cups is separated by a hollow division wall 2 and the cups of each longitudinally extending row are separated by transverse hollow walls 4.

Extending longitudinally are five posts 5, the latter rising above the division walls 2 and 4, and each post merges into four of said division walls to form a jointure therefor.

Each cup is preferably rounded except at the areas of the division walls. These walls are preferably tapered from the base upwardly so as to have a minor cross-section at their tops.

Each post is formed with a slot-like depression which extends longitudinally of the container for a purpose hereinafter to be set forth. It also will be noted that the body member is provided with an outwardly projected rim comprising two sections, rim section 6 being at a greater height than rim section 7, so that the two rim sections are joined at the ends of the container by a vertical shoulder indicated at 8x.

Preferably formed integrally with the body member are two cover members 8 of identical construction. Each cover member is formed with side wall 8x curved at its ends, and also is formed with a series of frusto-conical members 8xx, one for each of the pockets of a row thereof in the body member, the inner wall of each member 8xx being cupped as indicated more particularly in Figure 5 of the drawings. Each cover member is formed with a fold line at 9 so that the lip extension 10 of each cover member may be folded approximately 90°, as shown at the left hand portion of Figure 1.

The wall 8x of each cover member is joined to the adjacent rim section of the body member through a rim formation of said wall 8x which has a fold line at 11.

It is preferred that at the base of each cup 1, the pulp board be raised to form a cushion member as indicated at 1x of Figure 5. It further will be noted that the lip extension 10 of each cover member is formed with spaced projections which are adapted to lie between the posts and to rest on the longitudinal division walls 2, the outermost lip extensions bridging the spaces between the outermost posts and the vertical wall 6x of the body member.

The container is well adapted for the packing of eggs or other fragile articles therein by automatic machinery of a known type by means of which containers in succession, each with its two cover members outspread, as at the right hand of Figure 1, will be fed, as by an endless belt, successively under a "loader," which will drop one dozen eggs or other fragile articles simultaneously into the pockets of the body member. By a succeeding operation the lips 10 of the covers will

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be folded upwardly approximately 90° and will be swung inwardly until the areas of the lips 10, between the lip extensions will enter the slots of the posts, so that the cover members will be frictionally held firmly in closed position. Usually a label applied to the closed cover members will seal the container, although this is not essential.

I have shown in dotted lines, Figure 4, the manner in which the stepped rim sections of the body member enable adjacent containers to be so packed in a standard crate that the latter may hold its customary 30 dozen eggs, notwithstanding the fact that the eggs are packed in individual cartons or containers, each holding one dozen eggs, and that the containers are of such nature as to protect the eggs to an extent greater than the customary flats and fillers. It will be seen by reference to said figure that the high rim 6 of the container shown in full lines may lie over the low rim 7 of an adjacent container, which is shown in dotted lines at the left. By dotted lines at 12 in Figure 5 I have shown an egg in position within the closed container.

It will be understood that various modifications may be made in the form and arrangement of the elements illustrated in the drawings without departing from the spirit of the invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is as follows:

1. A container for fragile articles comprising a body member formed with a plurality of rows of cups separated by division walls extending longitudinally and transversely of the body member, a row of spaced posts extending longitudinally of the body member between longitudinal rows of said cups and said posts being formed with recesses, opposed cover members hinged to the sides of the body member, and each cover member having a normal top wall formed with a foldable extension having spaced projections adapted to enter the recesses of the posts when the cover members are closed to bring their extensions into mutual abutment, the body member having a rim consisting of two sections meeting substantially at the transverse center of the container, and at the ends thereof, one rim section being lower than the other rim section, the hinge connection of one cover member being on the higher rim section and that of the second cover member being on the lower rim section, as and for the purpose described.

2. A container for fragile articles comprising a body member formed with a plurality of rows of cups, a row of spaced posts extending longitudinally of the body member, said posts being formed with recesses, and opposed cover members integral with the body member and hinged to its opposite sides, the body member being formed with reinforcing rim sections, for abutment with corresponding rim sections of the cover members, one rim section of the body member being disposed lower than a companion rim section, and the rim section of one cover being correspondingly lower than that of the second cover member, each cover member having a wall with areas adapted to enter the recesses of the posts, and the two walls lying in mutual abutment when the cover members are in closed position.

3. A container for fragile articles comprising a body member formed with a plurality of rows of cups separated by division walls extending longitudinally and transversely of the body member, a row of spaced posts extending longi-

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tudinally of the body member between longitudinal rows of cups, opposed cover members hinged to the sides of the body member, and each cover member having a normal top wall formed with a foldable extension having spaced projections adapted to enter the spaces between the posts when the cover members are closed to bring their extensions into mutual abutment, the body member having a rim consisting of two sections meeting substantially at the transverse center of the container, and at the ends thereof, one rim section being lower than the other rim section, the hinge connection of one cover member being on the higher rim section and that of the second cover member being on the lower rim section.

4. A container for fragile articles comprising a body member formed with a plurality of rows of cups, a row of spaced posts extending longitudinally of the body member, and opposed cover members integral with the body member and hinged to its opposite sides, the body member being formed with reinforcing rim sections, for abutment with corresponding rim sections of the cover members, one rim section of the body member being disposed lower than a companion rim section, and the rim section of one cover being correspondingly lower than that of the second cover member, each cover member having a wall with ears adapted to enter the spaces between the posts, and the two walls lying in mutual abutment when the cover members are in closed position.

5. A container for fragile articles comprising a body member formed with a plurality of rows of cups separated by division walls extending longitudinally and transversely of the body member, and opposed cover members hinged to the sides of the body member, and each cover member having a normal top wall formed with a foldable extension, the body member having a rim consisting of two sections meeting substantially at the transverse center of the container, and at the ends thereof, one rim section being lower than the other rim section, the hinge connection of one cover member being on the higher rim section and that of the second cover member being on the lower rim section.

6. A carton for fragile articles including two elongated sections, said sections comprising a tray shaped body having a flanged encircling edge, the longitudinal edge of one section being connected hingedly to the longitudinal edge of the other section, the end portions of said flanged edge being offset intermediate said longitudinal edges, so that the flanged longitudinal edge on one side of said section is above the level of the flanged longitudinal edge on the other side of said section, said offset portions being in contacting relation when said sections are folded into superimposed relation.

WALTER J. SCHWERTFEGER.

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