

May 23, 1933.

L. SCHWARTZBERG

1,910,409

COMBINED CELL STRUCTURE AND INCLOSING ELEMENT

Original Filed July 3, 1930

Fig. 1.

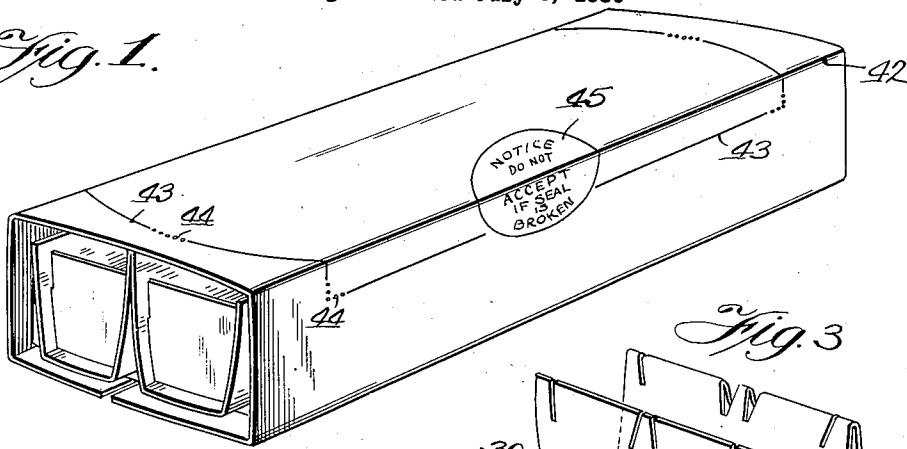


Fig. 3

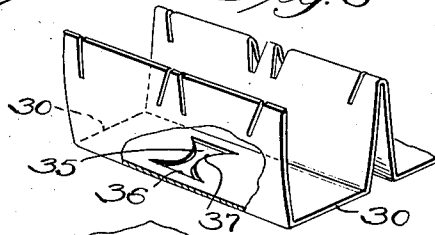


Fig. 5

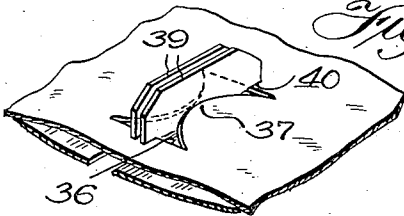


Fig. 4

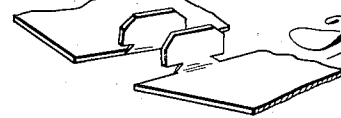
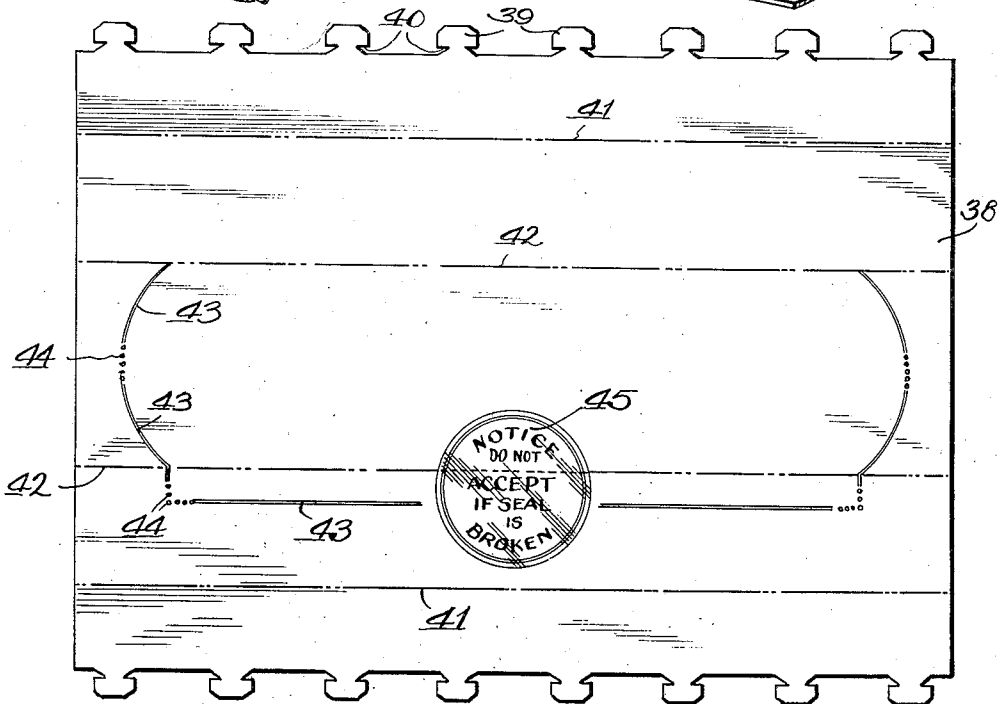


Fig. 2

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UNITED STATES PATENT OFFICE

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COMBINED CELL STRUCTURE AND INCLOSING ELEMENT

Original application filed July 3, 1930, Serial No. 465,482. Divided and this application filed April 13, 1931. Serial No. 529,587.

My present invention is a division of my application filed July 3, 1930, Serial No. 465,482 for "Cell structure and inclosing element", and has relation to the provision of a cell structure, together with an inclosing element therefor, suitable for the packing, handling and marketing of eggs or like fragile articles.

I have had as a combined object in the development of this structure the securing of a structure which will be strong and dependable and which at the same time will comprise few and simple elements that can be made and assembled quickly and with a minimum of expense.

While my improved cell structure may be employed to advantage with any suitable carton of requisite dimensions, I have provided with a suitable cell structure an inclosing element, formed from an integral piece of material which assembles and interlocks with the cell structure. Also in connection with the inclosing element I have provided a partially detached portion which may be readily torn to afford access to the cells so that the contents of the package cannot be reached or tampered with without disclosing that the inclosing element has been broken.

I attain the foregoing objects and results by means of the divers structural elements and the manner of their assembly illustrated in the accompanying drawing, in which—

Fig. 1 is a perspective of the inclosing element after the same has been assembled with the included cells.

Fig. 2 is a development of the inclosing element.

Fig. 3 is a fragmental detail of a portion of a cell structure showing the preferred form of aperture for co-operating with the tangs of the inclosing element.

Fig. 4 is a fragmental detail showing the relation of the tangs to the inclosing element before they are brought together and assembled with the cell structure, and

Fig. 5 is a fragmental detail of the interlock between the inclosing member and the cells.

Similar reference characters refer to similar parts throughout the respective views.

The cell element with which my inclosing means may be employed can preferably be made as described and illustrated in my co-pending application, Serial No. 465,482, as the cell structure described in that application is simple in construction and strong and dependable. However, any cell structure may be employed with the inclosing element herein described, provided such cell structure has a sturdy horizontal bottom which may be perforated preferably as shown in Fig. 3. That is, such cell structure must have the requisite extent of horizontal bottom so that preferably centrally of its edges may be provided apertures 35 for receiving the tangs of the inclosing member, as hereinafter described. The apertures 35 have straight end edges 36 and inwardly bowed side edges.

The inclosing member comprises a blank 38, rectangular in shape, which is provided on each longitudinal edge with the aligning tongues or tangs 39, which are undercut, as at 40. The development or blank 38 is provided with scored or creased fold lines 41—41 next the longitudinal edges and 42—42 intermediate the fold lines 41. The space between the fold lines 42—42 comprises the top which goes over the cell structure. The space between the fold lines 41—42 comprises the longitudinal sides of the completed structure and the space between the fold lines 41 and the longitudinal edges of the blank comprises each a half of the bottom of the structure.

After the cell structure has been filled the inclosing member is placed around it, as shown in Fig. 1, and each opposite pair of tangs 39 is brought into registry and thrust into the apertures 35 in the bottom of the cell structure. The inwardly curved side edges 37 of the aperture 35 permit the tangs to slant somewhat in order to enter, but after the tangs 39 have entered the apertures 35, the inwardly curved side edges of the apertures hold them in locked position, as shown most clearly in Fig. 5, so that it is practically impossible to withdraw the tangs 39 without tearing the inclosing member.

To permit access to the cells without tearing off the inclosing member I partially cut a

- door or window therein by means of the interrupted slits 43, the parts between the interruptions in the slits 43 being perforated, as at 44, to facilitate tearing. Opposite to the uncut edge which forms the back of the door or window I prefer to provide an extended gap between the slits 43, which will have to be torn across to open the door or window. Across this extended interval between the slits 43 may be attached or printed a seal 45 on which may preferably be printed a notice not to accept the package if the seal is broken, thereby assuring the purchaser that he is receiving the articles as they were originally packed and guaranteed.
- It has been found advantageous to sell eggs in cartons upon which have been placed seals that must be destroyed in order to open the carton and get at its contents. Such seals, however, after being torn, may be replaced with new seals which entirely conceal what has happened to the original seal, whereas with my inclosing structure a portion of the structure itself must be destroyed in order to get in the package which cannot readily be covered by a new seal.
- While it is possible, by means of the expenditure of sufficient skill, patience and time, to effect the removal of the tangs of the inclosing member from the perforations in the cells without tearing them, nevertheless this operation is sufficiently difficult with my structure to render it impractical.
- It may also be noted that the seals may be printed directly upon my inclosing member, thereby saving the time necessary in their manual attachment.
- Having described my invention what I claim as new and desire to secure by Letters Patent is:
1. A cell structure and an inclosing member therefor comprising a cell complete structure consisting of bottom and side walls and having a series of apertures in the bottom thereof and an inclosing member proportioned to surround said cell structure and provided with opposite, projecting, undercut, tangs of greater width than said apertures upon its meeting edges adapted to enter and interlock with the apertures in said cell structure.
 2. A cell structure comprising side walls and a bottom provided with apertures, an inclosing member having opposite, projecting, undercut, tangs of greater width than said apertures upon its meeting edges adapted to enter and interlock with the apertures in said cell structure, said inclosing member having an interrupted series of slits providing a door therein when certain of the portions between said slits have been destroyed.
 3. A cell structure and an inclosing member therefor comprising a cell structure comprising bottom and side walls having a series of aligning apertures with straight end edges and incurved side edges in said bottom, said inclosing member adapted to surround said cell structure and having on its meeting edges undercut tangs of greater width than said apertures for entering said apertures in said cell structure.
 4. In combination with a cell structure comprising side walls and bottom, said bottom having a series of aligning apertures therein, an inclosing member provided with registering outwardly extending under-cut tangs projecting from opposite edges thereof, said inclosing member being adapted to surround said cell structure and the tangs thereof to interlock with the aligning apertures in the bottom thereof, said inclosing structure having provided therein interrupted slits outlining a door or closure for the completed package.

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