Jan. 10, 1939. H. BLAU 2,143,536

EGG CARTON AND LOCK

Filed July 1, 1937

Fig. 1

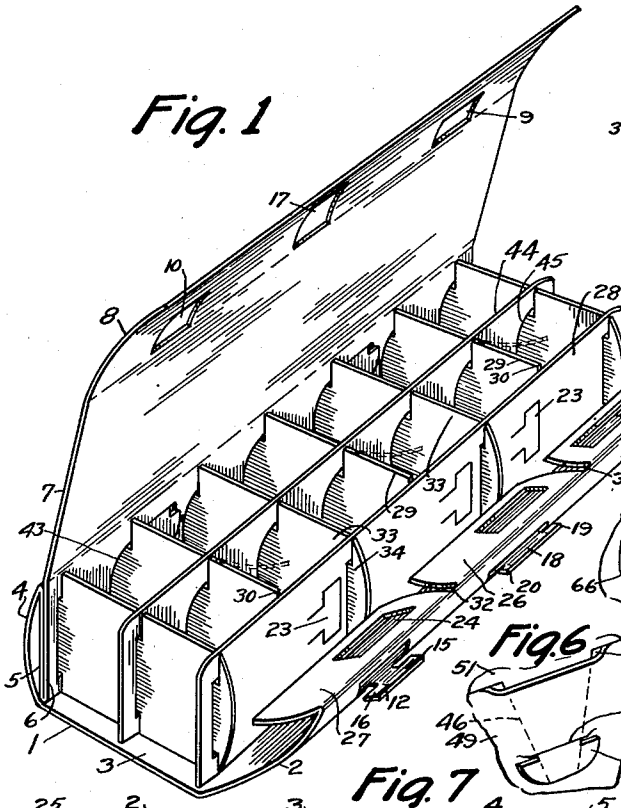


Fig. 2

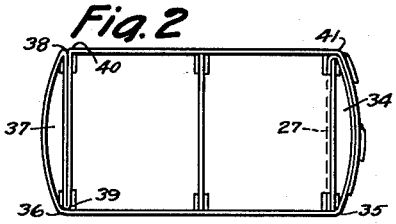


Fig. 3

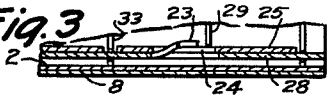


Fig. 4

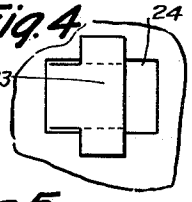


Fig. 5

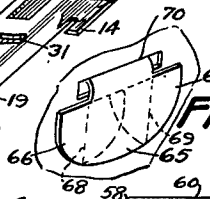


Fig. 8

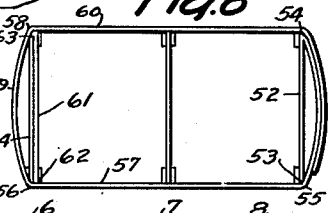


Fig. 6

Fig. 7

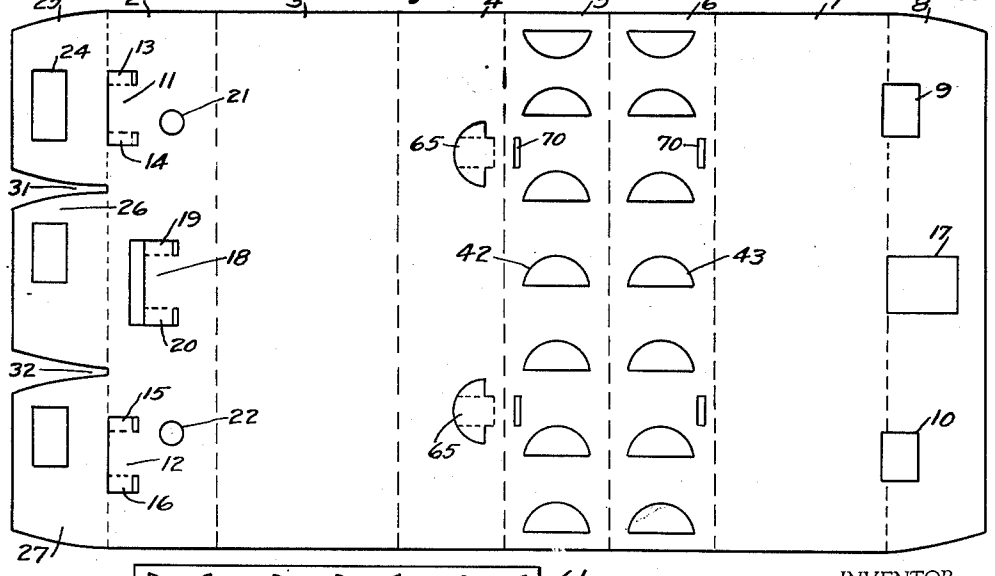
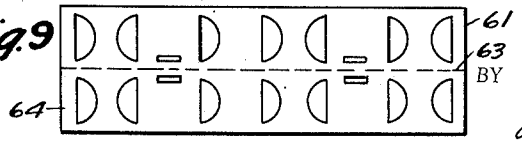


Fig. 9



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EGG CARTON AND LOCK

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5 Claims. (Cl. 229—29)

The purpose of this invention is to provide improvements in egg cartons, particularly of the one piece type, or in which the carton and filler are secured together as one piece, in which the carton is formed of a sheet of material, readily attached to the filler, and locked around the filler by readily operated locking tabs.

The invention is an egg carton having a collapsible filler with a casing formed of a sheet of material, one edge of which is folded downward inside of the filler and then around the end thereof, across the bottom around the opposite end, across the top, and then downward again around the former end, and this latter section forming the front, and provided with locking tabs securing it in place.

Egg cartons have been provided of this type, in which different types of fillers and covers have been used, and different means have been provided for attaching and holding the respective parts, however, it has been found difficult to form a one piece carton, or a carton in which the filler is attached to the cover, that may readily be assembled, and that may also be readily set up for use. It has also been found that most locking tabs as used for other devices are objectionable for egg cartons, because the locking parts require considerable time to force them through openings or slits, and egg cartons must be set up and locked in substantially a single movement or operation.

The object of this invention is, therefore, to improve egg cartons of the one piece or combined type, by providing means for readily attaching the carton to the filler, and also means for readily locking the carton.

Another object is to provide an egg carton having rounded sides forming cushions which protect the eggs.

A further object is to provide a lock for egg cartons and the like, in which the locking parts may readily be assembled.

And a still further object is to provide a one piece or combination egg carton, which is of a simple and economical construction.

With these ends in view the invention embodies an egg carton having a collapsible filler in combination with a strip of material forming a cover adapted to be wrapped around the filler, with means securing both sides to the cover, and means locking the cover in the closed position.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein;

Figure 1 is a view showing the carton partially open.

Figure 2 is a view showing an end elevation of the carton in the closed position.

Figure 3 is a detail showing a section through one end of the carton, showing locking means holding a side member of the filler to the front of the cover.

Figure 4 is a detail showing a front view of the locking means illustrated in Figure 3.

Figure 5 is a detail showing similar locking means at the back of the carton.

Figure 6 is a detail showing a modification in which locking tabs of a different design are illustrated for holding the carton closed.

Figure 7 is a view showing a blank from which the case or cover of the carton is formed.

Figure 8 is a view, similar to that shown in Figure 2, illustrating another modification in which the front side of the filler is formed directly in the cover, and an independent strip of material is used inside of the cover to replace a double bend thereof at the back.

Figure 9 is a detail showing the blank from which the alternate part shown in Figure 8 for the back of the carton is formed.

In the drawing the carton is shown as it may be made, wherein numeral 1 indicates the outer cover or case, which is preferably formed from a blank as shown in Figure 7, in which the section 2 forms the front, 3 the bottom, 4 the back, 5 and 6 an inner back section, 7 the cover, and 8 a front flap. The section 8 is provided with openings 9 and 10, through which flaps 11 and 12, with side wings 13, 14, 15 and 16, extend as shown in Figure 1, providing locking means at the upper edge of the front, and in the central part of the front flap is another opening 17 through which a flap 18 may extend, which is also provided with side wings 19 and 20. The front section 2 may also be provided with holes 21 and 22, which may be round or of any shape, through which the fingers may be inserted to force inner locking flaps 23 of a filler through slots 24 in sections 25, 26 and 27 of the case, with the sections folded downward inside of the side 28 of the filler, as shown in Figure 2, however, it will also be understood that the openings 21 and 22 may be omitted, and the flaps 23 may be drawn through the openings 24 by the tip of the finger with the openings made relatively large. It will be understood, therefore, that, by using the openings 21 and 22, the openings 24 may be relatively small.

It will be understood, however, that any other

means may be used for locking the sections 25, 26 and 27 in the filler, and it will also be understood that the locking means may be omitted, as shown in Figure 8, in which these sections are replaced by a continuous strip 27 with the ends of the cross members of the filler held directly therein.

In assembling the carton, the tabs 25, 26 and 27 are placed downward inside of the filler and over the strip 28, with the alternate cross members, as indicated by the numeral 29, stopping at the point 30, so that they may be bent outward as indicated by the dotted lines, so that the parts 25, 26 and 27 may be placed downward inside of the filler, with the slots 31 and 32 between the tabs straddling the alternate cross members 33 of the filler, and with these in place the locking tabs 23, from the section 28, may be inserted through the slots 24, as shown in Figures 3 and 4. The cross members 20 may then be bent backward to the position shown in full lines. The front section 2 is then bent downward around the rounded ends 34 of the filler to the point 35, across the bottom and bent upward at the point 36, then bent around the rounded ends 37 at the back, and extending upward to the point 38, with the section 4 forming the back, and with the section 5 bent inward to the point 39, and then upward to the point 40, forming a double member which forms the rear section of the filler with the two sections 5 and 6. The cover is then bent across the top of the carton to the point 41, and the front flap 8 is then bent downward, and, when this is in place, it will be noted that the tabs 11 and 12 may readily be drawn through the openings 9 and 10, with the side wings folded, and then straightened out to lock them in place. The tab 18 may then be drawn through the opening 17, with the wings at the sides thereof folded, and these may also be straightened out as shown. The sections 5 and 6 are provided with openings 42 and 43, and the ends of the cross members of the filler, which form the curved tabs 37, similar to the tabs 34 at the front shown in Figure 1, extend through these openings, thereby locking the ends of the cross members 29 and 33 in the double section formed by the members 5 and 6. The cross members may also be held in a central longitudinal member 44 in the usual manner, or in similar semi-circular openings 45 as shown. It will be understood, however, that a filler of any type or design may be used, and the ends thereof may be locked or held in the longitudinal members in any manner or by any means.

Figure 6 illustrates a different form of locking tab, in which tabs 46 are inserted through slots 47 and 48 in the front 49 of the carton, and these tabs are provided with side wings 50 which lock them in place after being inserted. The tabs are formed as extensions on a flap 51 extending over the front of the carton. It will be understood that this form of locking tab may be used on the carton shown in Figure 1, and it will also be understood that either of the locking tabs 11 or 12, or the tab 18, may be omitted from the carton shown in Figure 1, and also that the openings 9 and 10, and the tabs 11 and 12, may be located at any position on the front of the carton instead of at the upper edge thereof.

It may also be desirable to lock the parts of the back of the carton together, and, therefore, locking tabs of a slightly different design, as illustrated in Figure 5, may be provided in the back 4 of the carton, with the tabs extending through slots in the intermediate parts 5 and 6, the construction and design of which are hereinafter described.

In the design shown in Figure 8 the carton is formed slightly different, in that the cover is formed with a front section 52 that forms a front partition of the filler, and this starts at the point 53 and extends upward to the point 54, then downward around the rounded ends of the filler to the point 55, then across the bottom to the point 56 forming a bottom 57, then upward around the back to a point 58 forming a section 59, and then across the top forming a cover 60. This type of carton may also be used with any type of filler, and, in the design shown, the filler is provided with a side member 61 at the back, the blank of which is shown in Figure 9, and this extends upward from the point 62 to the point 63, and is then bent downward inside of the section 59 forming a section 64, thereby forming a double cushion and auxiliary back. In order to secure the back 59 to the section 64, locking tabs 65, similar to the tabs shown in the back of the carton shown in Figure 1, may be provided in the back 59 as shown in Figures 1 and 5, and these are formed with wings 66 and 67, which are adapted to be folded over on the lines 68 and 69, so that the entire tab may be inserted through slots 70 in the inner section 64, thereby locking the part 59 to the part 64 and holding the carton rigid. It is understood that two or any number of these tabs may be used in this carton, and it will also be understood that these tabs may be similar to those used in the carton shown in Figure 1.

The connections between the parts of the filler may be of any type or design or may be made as shown in Figure 3, or as shown in Figure 9, in which the ends of the cross members are inserted in openings in the adjoining members, and the ends are provided with wings or extensions, which, when inserted, hold the ends and prevent them passing back through the openings unless the cross members are bent or folded.

In the design shown in Figures 3 and 9, it is necessary to bend the cross members so that the wings on the extending end may be placed through the semicircular openings.

It will also be noted that the section 8 may be inserted downward inside of the carton as in many cartons now in use, and, in order to facilitate the insertion of the part, it may be provided with slits similar to the slits 31 and 32 between the parts 25, 26 and 27, or it may have notches and slits similar to many types of cartons now in use, in which the clover flap is inserted downward inside of the carton, with sections thereof extending between the sections of the filler.

It will be understood that other changes may be made without departing from the spirit of the invention. One of which changes may be in the use of locking tabs of any other type or design, another may be in the location or position of any of the locking tabs, another may be in the use of any of the parts hereof in combination with a carton of any other type, and still another may be in the use of a carton formed in this manner for egg cartons of any other type or design.

The construction will be readily understood from the foregoing description. In use the carton may be provided as shown and described, and it may be formed with a special filler, or any standard filler may be used, and the cover may

be provided as shown in Figure 5, and the parts may be folded around, and assembled with the filler as shown and described. It will, therefore, be noted that this carton involves the application of a sheet of material, forming a cover, wrapped around and secured to a filler, and the two may be secured together, and manufactured, shipped and sold as one piece, and then readily opened, assembled, and set up so that eggs may be placed therein, and the cover secured in place. The cover may or may not be provided with locking tabs, or any means may be provided for securing the cover in the closed position.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. An egg carton of the one-piece type having a collapsible filler and a continuous cover forming a case attached to the filler at the front and rear, and extending across the bottom and top with a locking flap at the front, characterized in that the ends of the transverse partitions of the filler are secured in parts of the case at the front and back, and also by cushions at the front and back formed by rounded sections of double thickness of material of the case held by rounded ends of the transverse members of the filler.

2. A carton, as described in claim 1, further characterized in that the said case folds downward inside of the filler at the front around the rounded ends of the transverse partitions, across the bottom, up the back and around the rounded ends of the transverse partitions at the back, downward until it engages the bottom, and then upward, providing a strip of material of double thickness forming a longitudinal member of the filler at the back, and then across the top and downward over the front.

3. A carton, as described in claim 1, further characterized in that the said case folds downward inside of the filler at the front around the rounded ends of the transverse partitions, across the bottom, up the back and around the rounded ends of the transverse partitions at the back, downward until it engages the bottom, and then upward, providing a strip of material of double thickness forming a longitudinal member of the filler at the back, and then across the top and downward over the front, and also in that locking tabs are provided at the front holding the downwardly extending flap at the forward end of the cover that extends across the top of the filler.

4. A carton, as described in claim 1, further characterized by locking tabs at the back extending through slots in the parts of double thickness at the back of the filler.

5. A carton, as described in claim 1, further characterized in that the said case folds downward inside of the filler at the front around the rounded ends of the transverse partitions, across the bottom, up the back and around the rounded ends of the transverse partitions at the back, downward until it engages the bottom, and then upward, providing a strip of material of double thickness forming a longitudinal member of the filler at the back, and then across the top and downward over the front, and also in that locking tabs are provided at the front holding the downwardly extending flap at the forward end of the cover that extends across the top of the filler, and by locking tabs securing the parts of the case that extend downward inside of the filler at the front to the filler.

HARRY BLAU.