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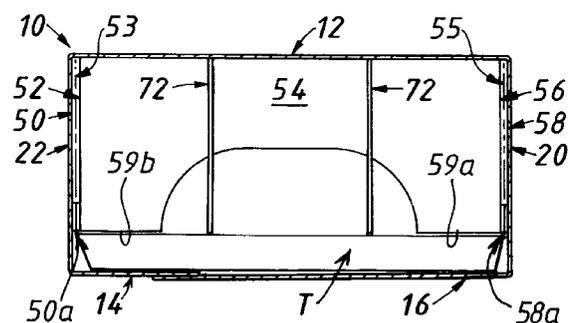
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Carton for egg trays.

A carton for accommodating foodstuffs such as eggs which carton comprises a base part (11) and a wrapper part (10). The base part is adapted to receive eggs and the wrapper is wrapped about the base part to provide a lid therefore. The lid is supported out of contact with the eggs by end panels (56, 64) which have parts to engage with the upper portions of the base part.

FIG. 3.



The invention relates to a carton which comprises a wrap-around type blank of foldable material, preferably paperboard or the like, which carton can be used to carry foodstuffs such as a tray of eggs.

Known packaging for delicate foodstuffs such as eggs include compartmentalised trays which are generally semi-rigid structures having item separation means which prevent the eggs from touching one another. Such trays allow open access to the foodstuff from above and can often be stacked, primarily relying on the rigidity of the item separation means to enable such stacking. This type of packaging has the inherent disadvantage that food items can easily fall out of the open top. Hence it is also known to provide a lid to such trays which generally are relatively fragile structures which simply act to enclose to top of tray.

According to one aspect of the invention there is provided a carton for accommodating foodstuffs such as eggs which carton comprises a base part and a wrapper part in which the base part is adapted to receive said foodstuff and said wrapper is wrapped about said base part to provide a lid therefor and wherein said lid is supported out of contact with the foodstuff by mutually engaging parts of the base part and wrapper.

According to another aspect of the invention, there is provided a carton blank for use in combination with a tray base to which blank comprises a top, a bottom and two side panels which are foldably interconnected and which blank further comprises a strengthening means which, when the carton is formed and loaded with a tray, acts on said tray to provide a rigid carton to protect the foodstuff therein and like formed cartons to be stacked upon one another.

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

Figure 1 is a plan elevation drawing of an unformed carton blank according to the invention; Figure 2 is a schematic perspective elevation drawing of one corner of the formed carton; and Figure 3 is a schematic cross-section end elevation drawing of the embodiment of the invention.

Referring to the drawings, Figure 1 shows a carton blank 10 formed from paperboard or similar which comprises bottom panels 14 and 16, side wall panels 20 and 22, and top panel 12. The blank 10 further comprises end sections 26 and 24. The panels are foldably interconnected by means of fold lines in which bottom panel 14 is hinged to side panel 22 along fold line 30; and likewise base panel 16 is hinged to side panel 20 along fold line 36; fold lines 32 and 34 extend the full width of the blank from the outer edge of end section 26 to the outer edge of end section 24 thereby defining top panel 12 together with fold lines 38 and 40. Top panel 12 is foldably interconnected with side panel 22 and 20 by means of fold lines 32 and 34 respectively.

End section 26 comprises an end panel 54 which is foldably connected to top panel 12 by means of fold line 38 and further connected to side panel 20 by means of a gusset section comprising substantially triangular panel components 56 and 58. The gusset components 56 and 58 are foldably interconnected along hinge line 55 whilst component 58 is foldably connected to side panel 20 by means of fold line 38 and gusset component 56 is foldably connected to end panel 54 by fold line 34. End section 26 comprises a further corner gusset comprising substantially triangular panel components 50 and 52 which are foldably interconnected by means of a hinge line 53. End section 24 comprises end panel 64 which is hinged to top panel 12 by means of fold line 40. End section 24 further comprises two corner gusset sections which interconnect end wall 64 to side panels 22 and 20. The corner gusset sections comprise substantially triangular panel components 60 and 62, and 66 and 68, which are interconnected by fold lines 63 and 65 respectively as shown in figure 1.

This embodiment of a carton blank according to the invention also comprises five item separators 70 which are struck from top panel 12 forming a flap 72 hinged to top panel 12 by means of fold line 74. Bottom panels 14 and 16 also comprise cooperating locking means 80 and 82 respectively which can be mutually engaged in overlapping relationship to form an effective single bottom panel in an erected carton. End panels 54 and 64 each have a recess portion which in the formed carton may be used as handling apertures.

A further elevation of this specific example of a carton blank according to the invention is shown in Figure 2 which shows a view of a corner of a formed carton with panels 16, 20 and 54 in substantially orthogonal relationship. When formed a gusset section collapses so that the two triangular panel components meet, in face to face contact, for example 56 and 58 are folded about hinge 55 and are disposed inwardly of the carton. The gusset is rotated about fold lines 34 and 38 to a position adjacent a side panel 20. In this folded form there is created a tray engaging edge 59 which is the lowermost edge of end panel 54. Additionally, a tray engaging edge is created inside the carton at the lowermost edge 58a of gusset section 58. It is envisaged, however, that lowermost edge 56a of gusset panel 56 could be used to engage a tray rim as well as edge 58a or independently thereof. Which edge engages the tray depends on the formation of the corner gussets and the relative angular relationship of the fold lines, in this example 38, 34 and 55.

Thus, in this embodiment it is possible for edge 59 to engage a rim, or outer edge, of part of the carton such as a tray T as shown in Figure 3. This figure shows a schematic and elevation of a formed carton in partial cross-section viewed from the inside toward end panel 54.

The type of tray T shown is only schematic and it is envisaged that this could be an egg tray of the type having individual egg compartments and made from pressed waste paper. As shown, article separators 72 can be lowered and in addition to separating articles they can act as a carton stabilizing and rigidity means by being positioned in abutment with upward facing parts of tray T.

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Claims

1. A carton for accommodating foodstuffs such as eggs which carton comprises a base part and a wrapper part in which the base part is adapted to receive said foodstuff and said wrapper is wrapped about said base part to provide a lid therefor and wherein said lid is supported out of contact with the foodstuff by mutually engaging parts of the base part and wrapper. 15
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2. A carton according to Claim 1 wherein said base part is a tray for eggs and wherein said wrapper has end panels which engage edge parts of said tray to support the lid out of contact with eggs accommodated in the tray. 25
3. A carton according to Claim 2 wherein said end panels are formed to provide handle means by which the carton can be handled. 30
4. A carton blank for use in combination with a tray base to which blank comprises a top, a bottom and two side panels which are foldably interconnected and which blank further comprises a strengthening means which, when the carton is formed and loaded with a tray, acts on said tray to provide a rigid carton to protect the foodstuff therein and like formed cartons to be stacked upon one another. 35
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5. A carton blank as claimed in Claim 1 wherein said strengthening means comprises one or more corner gussets for placement in tactile relationship with an upper surface of said tray when said carton blank is in a completed formation. 45
6. A carton blank as claimed in Claim 1 or 2 wherein strengthening means further comprise end panels which are adapted to engage an upper surface of said tray when said carton is formed. 50
7. A carton blank as claimed in any preceding Claim further comprising article separation and/or support flaps which are foldably hinged to the said top panel for engagement with an upper surface of said tray when said carton is formed. 55

FIG. 1.

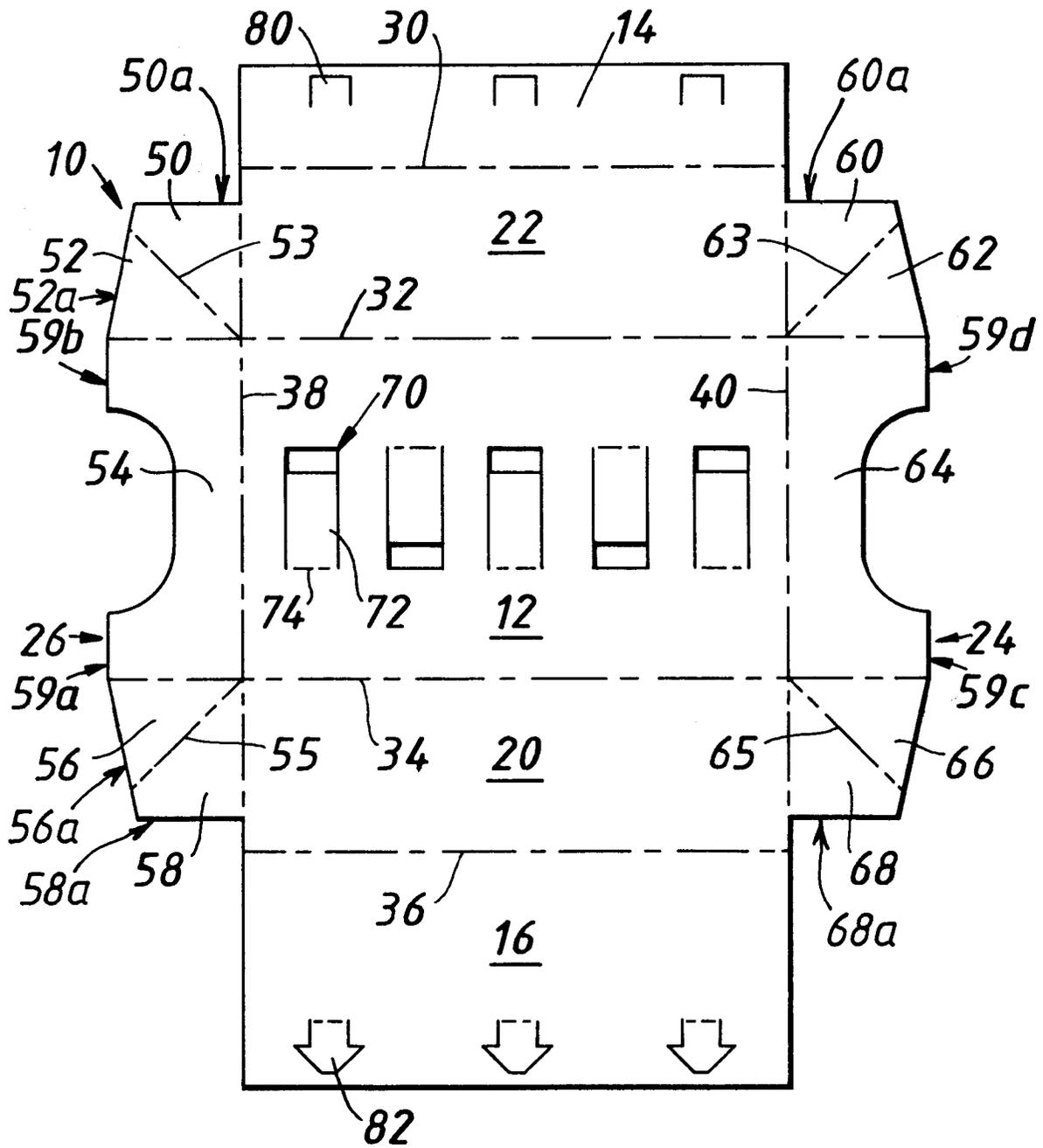


FIG. 2.

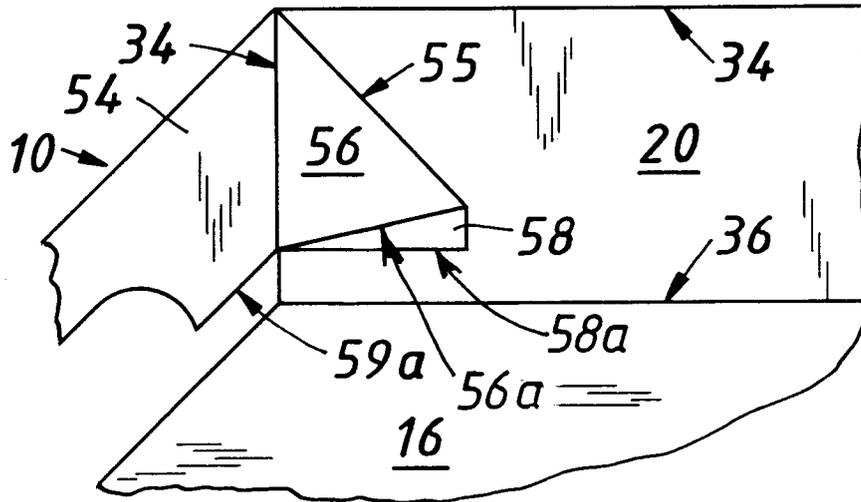
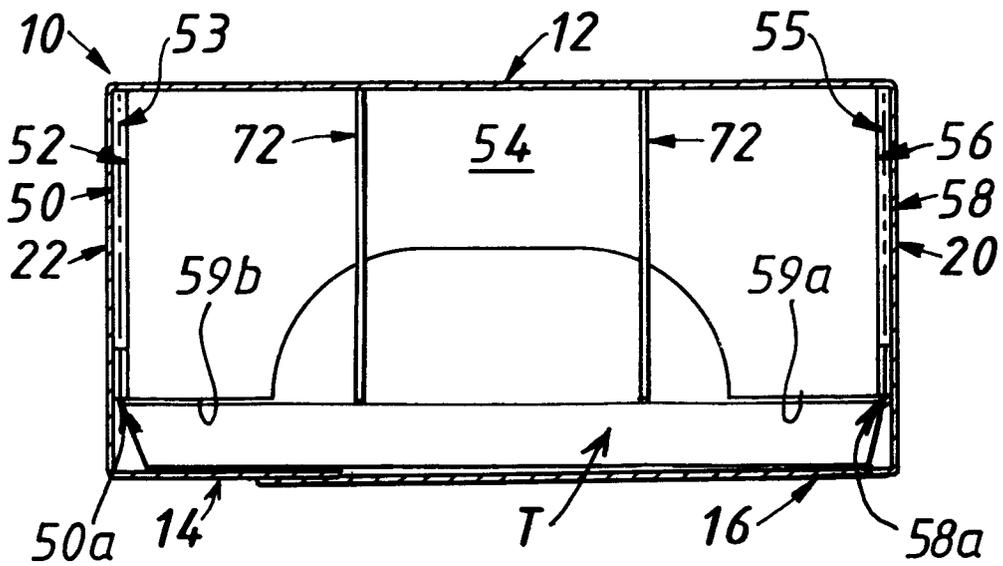


FIG. 3.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 30 5944

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	FR-A-2 473 295 (CARTORHIN) * page 1, line 29 - page 2, line 11; figures 1-6 *	1,2,4-7	B65D85/32
A	FR-A-2 424 858 (U.C.A.R.A.) * page 2, line 8 - line 20; figures 1-4 *	1,2,7	
A	EP-A-0 276 671 (UNILEVER) * column 1, line 52 - column 2, line 27; figures 1,2 *	1,4-6	
A	US-A-4 804 089 (WILSON) * column 2, line 42 - column 3, line 68; figures 1-3 *	1,4-6	
A	US-A-3 476 306 (EISENBERG) * column 3, line 45 - column 4, line 7; figures 3,4 *	1,2,6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07 OCTOBER 1992	Examiner VANTOMME M.A.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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