

PATENT SPECIFICATION

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(54) A PACKAGE FOR FRAGILE OBJECTS

(71) We, AKTIESELSKABET BRØDRENE HARTMANN, a Danish Company of 203-205, Klampenborgvej, DK-2800 Lyngby, Denmark, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to packaging for fragile objects.

The present invention provides a package for fragile objects, especially eggs, said package being an article-revealing carton of the type consisting of a container section and a cover section, said container section being provided with a number of pockets arranged in two parallel rows and destined for the receipt of said objects, and upstanding projections between the said rows of pockets, whereas the cover section is provided with two upstanding, parallel gables and a recessed intermediate cover portion connecting the lower parts of two opposite gable side walls a number of apertures corresponding to the number of pockets of the container section being provided in said intermediate cover portion and in the adjoining gable side walls, each aperture being located so as to coincide with a corresponding pocket when the carton is closed, the free end surface of the supporting projections engaging corresponding counter surfaces of the cover section when the carton is closed, characterized in that the counter surfaces are each bordered by a shoulder or bead which together with the counter surfaces forms a part of the said intermediate cover portion and adjoins adjacent apertures.

The said shoulder or bead can be interrupted along its circumference.

The shoulders can serve two purposes. When the package is closed the shoulders can keep the free ends of the supporting projections in place and center the cover on the projections, and secondly, the external wall portions of the shoulders can serve as areas supporting objects accommodated in the

package, thus contributing to keeping the objects in place, the said purpose being achieved in a space saving manner.

When the package shortly to be described with reference to the drawings is closed the gable sections are located above the rows of pockets and a certain part of each object resting in the pocket becomes visible through its associated hole in the cover part, which part of the object is also kept in place and bounded by the hole rim, this being achieved by the package being so dimensioned that when it is closed the upper portion of the gable sections is located higher and the lower cover section is located lower than the upper part of the object, and by the gable sections being narrower than the said upper part of the objects.

The counter-projections form parts of the lower cover section, and their shoulders border adjacent holes. This results in a mutual anchoring of adjacent projections as well as in a fixation of the objects in direct vicinity of the hole rims. At the same time a satisfactory minimum size of the hole can be retained.

By way of example only, an illustrative embodiment of the invention will now be described with reference to the accompanying drawings, in which:

Fig. 1 shows the insides of an open package constituting an embodiment according to the invention in the form of a sight package,

Fig. 2 shows the outsides of the same package, and

Fig. 3 shows an enlarged corner section of the package in a diagrammatic view.

The illustrated package consists of a container part 1 and a cover part 2 interconnected by a flexible joint 3 and adapted to accommodate eggs.

The container part has two parallel rows of egg pockets 4, in the example shown five in each row. Projections 5 in the form of hollow cones extend between the said rows, delimiting the pockets and serving to support the cover part 2 when the latter is closed over the container part 1.

The cover part 2 has two parallel gable sections 6 extending parallel to the rows of pockets and positioned over the pockets when the package is closed, as shown in Fig. 3. A lower cover section 7 between the two gable sections 6 interconnects the lower edges of the opposite sides 6a of the gable sections. A number of inspection or sight holes 10 is provided for the eggs 9 and form incisions partly in the sides 6a of the gable sections and partly in the cover section 7. The number of holes 10 corresponds to the number of pockets 4. When the package is closed the holes are positioned opposite their pockets. In the example shown there are thus five holes 10 in each gable section 6.

Especially from Fig. 3 it may furthermore be seen that the package is dimensioned so that the upper portion of the gable sections 6 is located higher and the lower section 7 lower than the upper portion of any egg 9 in the package when the package is closed, and also that the gable sections 6 are narrower than the said part of the eggs.

Therefore a part of the eggs become visible in the holes when the package is closed, and it may protrude through the holes even to such an extent as to come into contact with the hole rims, the eggs thus being held in place.

The supporting projections 5 are topped by a supporting area 11.

Between the gable sections 6 the cover 1 is provided with counter-projections 12 with areas 13 adapted to being supported by the areas 11. In the example shown the counter-projections 12 form an integral part of the cover section 7 and incorporate a shoulder 14 peripherally surrounding the support areas 13 of the counter-projections 12. In the example shown each shoulder 14 is continuous and forms a ring. However, it may also be discontinuous in the direction of its circumference.

Moreover it may be seen from the drawing that the shoulders 14 have outsides bordering the adjacent holes 10. In the outer surface of the cover part channels 15 are formed corresponding to the shoulders 14, and between the shoulders 14 the cover section 7 is provided with inwardly projecting connection ribs 16 which (as seen in Fig. 3) are not so deeply placed as the shoulders 14 and are matched by corresponding grooves 17 in the cover outside.

When the package is closed the support areas of the projections 5 and 12 are abutting each other, while the shoulder 14 of

the counter-projections 12 surrounds and fixes the free end of the supporting projections 5. At the same time the outside of the shoulders 14 forms an area 18 supporting that part of the eggs 9 protruding from the pockets 4.

This arrangement is also useful for packages where the counter-projections 12 are not inherent parts of a lower cover section, but separate components. Other embodiments are possible and need not be limited to the exact number of pockets and/or cover sections used in the described embodiment. The scope of the invention is defined by the appended claims.

WHAT WE CLAIM IS:—

1. A package for fragile objects, especially eggs, said package being an article-revealing carton of the type consisting of a container section and a cover section, said container section being provided with a number of pockets arranged in two parallel rows and destined for the receipt of said objects, and upstanding projections between the said rows of pockets, whereas the cover section is provided with two upstanding, parallel gables and a recessed intermediate cover portion connecting the lower parts of two opposite gable side walls, a number of apertures corresponding to the number of pockets of the container section being provided in said intermediate cover portion and in the adjoining gable side walls, each aperture being located so as to coincide with a corresponding pocket when the carton is closed, the free end surface of the supporting projections engaging corresponding counter surfaces of the cover section when the carton is closed, characterized in that the counter surfaces are each bordered by a shoulder or bead which together with the counter surfaces forms a part of the said intermediate cover portion and adjoins adjacent apertures.

2. A package as claimed in claim 1, characterized in that the said shoulder or bead is interrupted along its circumference.

3. A package for fragile objects, especially eggs, the package being substantially as herein described with reference to and as illustrated by the accompanying drawings.

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The cover part 2 has two parallel gable sections 6 extending parallel to the rows of pockets and positioned over the pockets when the package is closed, as shown in Fig. 3. A lower cover section 7 between the two gable sections 6 interconnects the lower edges of the opposite sides 6a of the gable sections. A number of inspection or sight holes 10 is provided for the eggs 9 and form incisions partly in the sides 6a of the gable sections and partly in the cover section 7. The number of holes 10 corresponds to the number of pockets 4. When the package is closed the holes are positioned opposite their pockets. In the example shown there are thus five holes 10 in each gable section 6.

Especially from Fig. 3 it may furthermore be seen that the package is dimensioned so that the upper portion of the gable sections 6 is located higher and the lower section 7 lower than the upper portion of any egg 9 in the package when the package is closed, and also that the gable sections 6 are narrower than the said part of the eggs.

Therefore a part of the eggs become visible in the holes when the package is closed, and it may protrude through the holes even to such an extent as to come into contact with the hole rims, the eggs thus being held in place.

The supporting projections 5 are topped by a supporting area 11.

Between the gable sections 6 the cover 1 is provided with counter-projections 12 with areas 13 adapted to being supported by the areas 11. In the example shown the counter-projections 12 form an integral part of the cover section 7 and incorporate a shoulder 14 peripherally surrounding the support areas 13 of the counter-projections 12. In the example shown each shoulder 14 is continuous and forms a ring. However, it may also be discontinuous in the direction of its circumference.

Moreover it may be seen from the drawing that the shoulders 14 have outsides bordering the adjacent holes 10. In the outer surface of the cover part channels 15 are formed corresponding to the shoulders 14, and between the shoulders 14 the cover section 7 is provided with inwardly projecting connection ribs 16 which (as seen in Fig. 3) are not so deeply placed as the shoulders 14 and are matched by corresponding grooves 17 in the cover outside.

When the package is closed the support areas of the projections 5 and 12 are abutting each other, while the shoulder 14 of

the counter-projections 12 surrounds and fixes the free end of the supporting projections 5. At the same time the outside of the shoulders 14 forms an area 18 supporting that part of the eggs 9 protruding from the pockets 4.

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