United States Patent

[11] **3,575,338**

[72] Inventor **Rolf Magnus Dilot**
Lund, Sweden

[21] Appl. No. **854,575**
[22] Filed **Sept. 2, 1969**
[45] Patented **Apr. 20, 1971**
[73] Assignee **A B Akerlund & Rausing**
Lund, Sweden
[32] Priority **Oct. 3, 1968**
[33] **Sweden**
[31] **13337/68**

—

[54] **PACKAGE COMPRISING AN OUTER CARTON BLANK AND A LINING AND PROVIDED WITH MEANS PREVENTING WEDGING**
3 Claims, 2 Drawing Figs.

[52] **U.S. Cl.** **229/14**

[51] **Int. Cl.** **B65d 5/56, B65d 21/02**

[50] **Field of Search** 229/14; 93/31, 36.01

[56] **References Cited**

UNITED STATES PATENTS

3,489,331 1/1970 Andersson 229/31

Primary Examiner—David M. Bockenek
Attorney—Pierce, Scheffler & Parker

ABSTRACT: Projections at the edge of traylike packages are provided to prevent wedging when stacking a plurality of packages. The projections are made by flaps formed by slots at the upper edge of the carton, which flaps are depressed outwardly when a plastic foil is deep-drawn into the package.

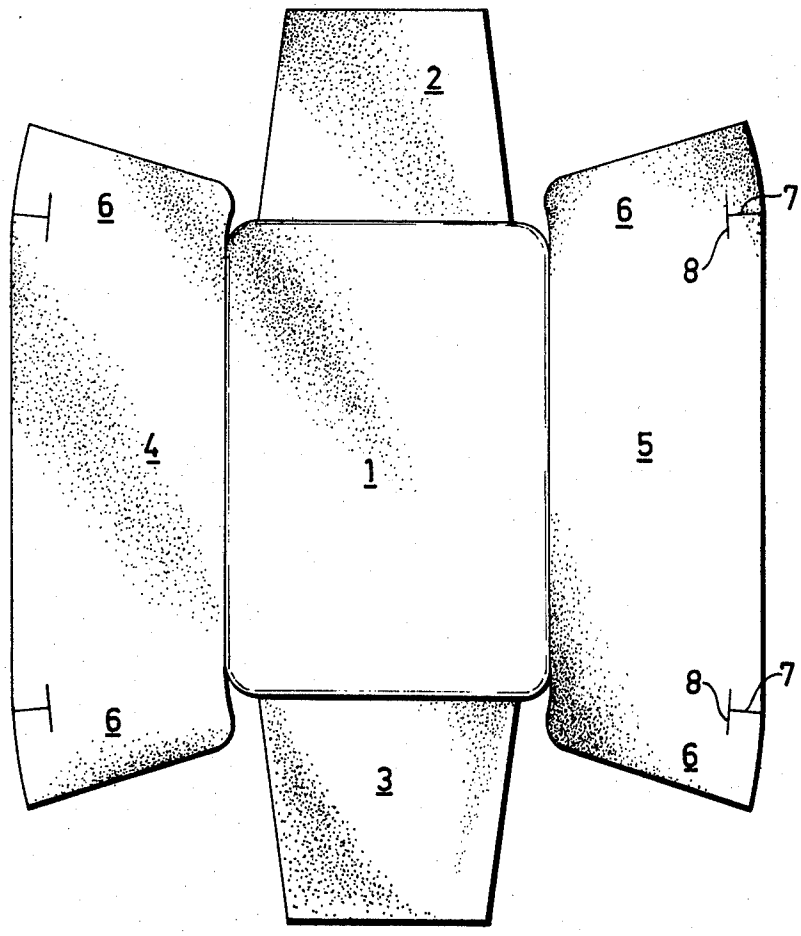


Fig. 1

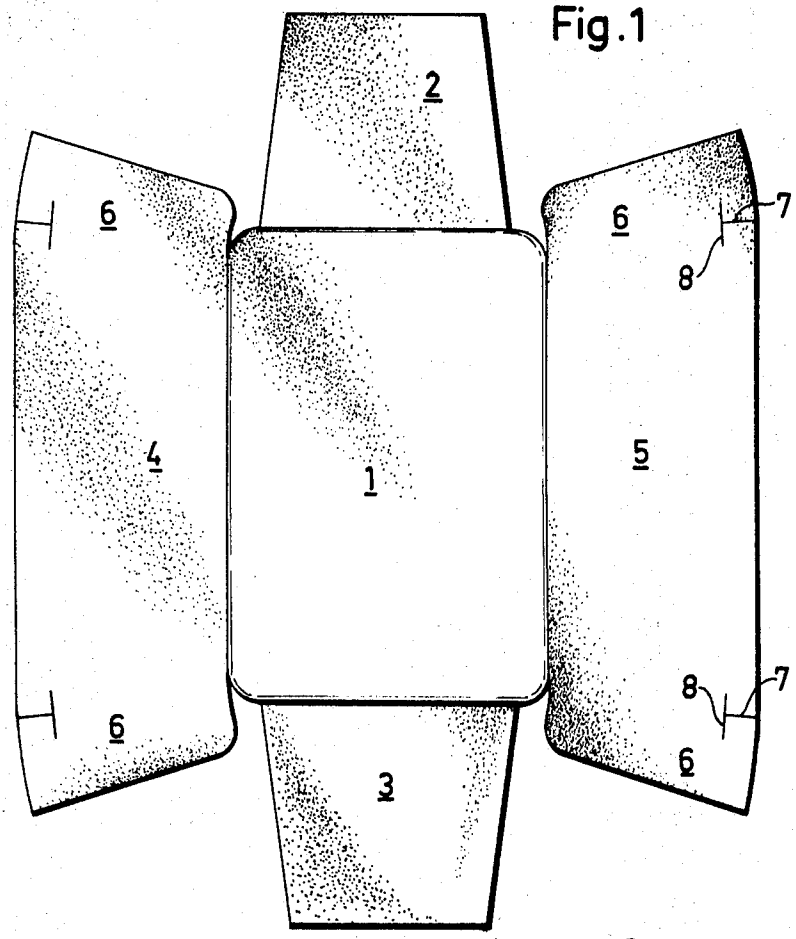
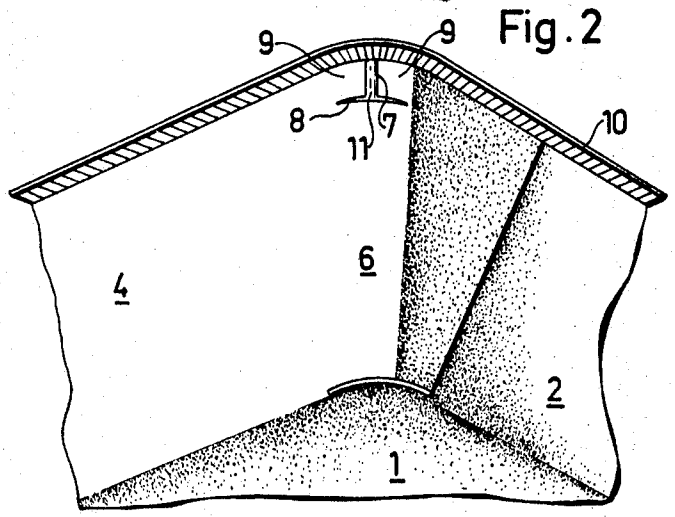


Fig. 2



INVENTOR
Rolf Magnus Dilot
By
Pierce, Scheffler & Parker
Attorneys

PACKAGE COMPRISING AN OUTER CARTON BLANK AND A LINING AND PROVIDED WITH MEANS PREVENTING WEDGING

The present invention relates to a package comprising a troughlike outer carton blank and a lining disposed therein, which has been deep-drawn into the carton blank, after the said carton blank has been disposed in a mould in an erected condition, the package further comprising means to prevent wedging of packages piled one in another.

Packages of the above-mentioned kind are often delivered to the consumer piled in each other. In order to make it easy to separate them in connection with the filling of the packages, these ought to be provided with means to prevent them from wedging into each other. The present invention aims at improving such means. According to the invention the means consists of an extension of the lining which is made by slotting the carton blank and then squeezing it outwardly at one or several places about its upper edge.

By the invention you can derive a very secure construction, which effectively prevents wedging. By the construction according to the invention one or several plastic bubbles are formed along the upper edge of the package. These plastic bubbles serve as abutments when packages are piled one in another. However, due to the fact that the bubbles are made by a slitting of the carton blank, flaps of the carton blank provide an effective protection to the bubbles. The invention is described in greater detail in the following with reference to the accompanying drawings.

FIG. 1 shows the carton blank according to the invention in a flat condition.

FIG. 2 shows a corner of the carton in an erected condition seen from the outside and diagonally from below.

As shown in FIG. 1 the carton blank comprises a bottom field 1, four sidewalls 2, 3, 4 and 5 and four corner fields 6. The corner fields 6 are at their outer free edges provided with slots 7, which at the innermost parts thereof are provided with transverse slots 8. The erection of the carton is made in such a way that after an initial prefolding, the carton blank is brought down into a mould, the dimensions of which essentially correspond to those of the finished package. Over the mould and the blank placed therein a plastic foil of a deep-drawable quality is clamped. This plastic foil is heated and deep-drawn into the mould by means of pressure and/or vacuum. Preferably the carton blank and/or the lining have in advance been provided with a layer of a thermoplastic adhesive, which

by the erection of the carton is disposed between these elements. At the time of the erection the thermoplastic layer is brought into contact with all surfaces of the carton blank so that the respective surfaces completely abut each other. Normally one can thereby use the heat provided for the deep-drawing for the activation of this adhesive. Should more heat be required, the carton blanks may be preheated. By joining abutting surfaces of the lining 10 and the carton blank, the flaps 9, defined by the slots 7 and 8, are effectively attached to the inner lining 10. Preferably this inner lining is provided with a border flange, which extends outwardly from the upper edge of the package beyond the bubble 11 so that the border flange masks or hides the bubble when viewed from above. In order to make an effective plastic bubble 11 at the corner of the package the actual mould is provided with a small cavity in front of the slots 7 and 8.

By the invention you do not only derive the benefit of an effective reinforcement of the plastic bubble 11 by means of the carton flaps 9 but also the possibility of the decoration projecting over the plastic bubble.

The invention is of course not restricted to the embodiment described above, but may be varied within the scope of the following claims. For instance you may vary the shape of the slots 7 and 8 in order to get another shape of the formed plastic bubble 11.

I claim:

1. A package comprising a traylike carton having a deep-drawn lining therein, said carton being provided with at least one slot extending inwardly from the upper edge of said carton, and a slot at the inner end of said first slot extending at right angles thereto, said slots defining at least one flap, said at least one flap being depressed outwardly by the deep-drawn lining to form at least one projection composed of said at least one flap and said lining in the wall of said traylike carton to prevent wedging of a plurality of stacked packages.

2. A package as claimed in claim 1 wherein said traylike carton is rectangular in shape and has four rounded corners and is provided with a plurality of projections, said projections being located at said rounded corners.

3. A package as claimed in claim 1 wherein the lining of said traylike carton is provided with a projecting flange about the upper edge thereof extending outwardly beyond said at least one projection to conceal said wedging preventing projection when viewed from above.