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(54) Method of packing and dispatch packing for groups of juxtaposed block or box shaped sales units

(57) By packing together sales cartons of many various kinds for shipment from merchant to retailer it is quite usual that cardboard boxes are being used as outer packing by which these packings are easily stacked. However, the material consumption is quite extensive. It is realised by the present invention that it is possible to obtain the desired compactness and stackability in a less resource demanding way namely by placing the carton groups in a partcover (4) of cardboard completely covering the foundation and the opposing side surfaces of the group so that the sideparts equal the upper edges of the group after which the hereby formed packing is fixed by using a shrinking foil.

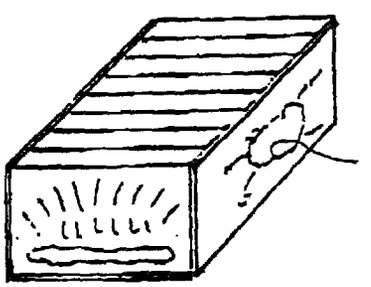

Fig. 3.

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Description

Method of packing and dispatch packing for groups of juxtaposed block or box shaped sales units.

The present invention relates to a method of wholesale packing of block or box shaped sales units containing various daily goods, in particular sales cartons preferably for pallet stacking of the packings, where the units are placed in a compact, boxed shaped group on or in a partcover whereafter the group is fixed to this cover.

It is quite usual that such cartons are distributed in regular cardboard boxes from factory to retailer, possibly through a wholesale link, as the larger boxes form block units that are suitable for entering into even larger juxtaposed or stacked storage or e.g. palletised shipping batches.

In the retail link the single packages are removed from the boxes and placed on the shelves or the like for individual distribution and the boxes have then terminated their purpose.

Large amounts of corrugated cardboard material are consumed for these storage and dispatch packings, that by the consumer merely are regarded as sporadically appearing waste boxes that free of charge can be used for carrying home goods. In larger retail companies these boxes create a direct waste problem, because compression equipment must be purchased in order to make possible a compact delivery of the material for destruction. Furthermore, the boxes represent a huge consumption of wood material.

It is realised by the invention that the necessary material consumption for said larger dispatch packings can be reduced considerably while meeting the requirement that the units must be firmly stackable in storages and on pallets, by as partly known from certain special packings e.g. wine bottles using a support tray of (corrugated) cardboard whilst the group of sales units is wrapped in shrinking foil.

Said type of packings consists of lower tray-shaped cardboard foundations with short upright wall parts while the wrapped items extend considerably above the upper edges of these foundation trays. The invention operates with an opposite consideration, namely that the foundation part should have upright side wall parts which extend to a level immediately by or above the upperside of the item group so that the upper edges of the upright tray wall parts will form a basis for units stacked thereon. Thereby no specific stability demands of the individual packings are required, but the group of packings as a whole can form a firm stackable unit.

In many cases there is no need for a lower support tray, i.e. an element with upright side parts at all four sides, as said upper support edges can occur solely at two opposite sides. Therefore the packing can be built as a U-profile, as shown in SE-A-362 399, without the associated end wall parts. This packing is also a type of foundation tray in which the sales units are placed. Instead of the associated end walls, the sales cartons in SE-A-362 399 are held together and in place by a string or a band tied around the side walls of the U-profile. However, this type of packing does not ensure the necessary stability required for stacking the packings. The packing is open upwards, which can cause damage to the sales cartons. Such type of packing is therefore only suitable for sales units of a pronounced rigidty and stability of themselves.

The inventions explores a different view, as a packing sheet is used, which by two parallel folding lines is divided into two side sections and a middle section, where said middle section is sized in accordance with a side surface of the boxed shaped group and the two side sections are sized in accordance with two opposing side surfaces adjoining said side surface, and said sheet is folded so that the sheet extends over three whole side surfaces of the group in such a way that the outer edges of the folded side sections are flush with the free edges of the adjoining sides of the group, and then the item prepared in this manner is fixed by using a shrinking foil, that is shrunk sufficiently around the item to provide a surface pressure between the sheet and the group of sales units and between the sales units themselves.

At the top of the packing, the high edges of the cardboard wrapper will serve to protect the upper ends of the sales units from being deformed by the pressure from the shrinking foil, but the associated firm pressing together of these upper ends make them well suited to contribute to a good carrier capacity for superimposed package units.

Hereby a method of wholesale packing is provided whereby a dispatch packing is obtained requiring only a minimum amount of material and which gives a stable, rigid packing of cartons which is suitable for stacking and offers a good protection to the sales units against e.g. moisture or dust during storage and transport.

It may hereby be preferred that an associating wrapping of foil is carried out in the longitudinal direction of individual packings juxtaposed in line.

The sales units can be juxtaposed on the sheet with different orientations in relation to the folding lines.

The invention is illustrated in the drawing, in which

Fig. 1-3 illustrate a process of packing for a group of individual packings, and

Fig. 4 is an illustration of the group similar to fig. 3 in another arrangement of the outer packing.

Fig. 1 shows a number of individual packings 2 which at the beginning is placed on a packing sheet 4 with an overwidth at sides, corresponding to the height of the individual packings 2. The sheet 4 can be simple a cardboard or corrugated sheet which however preferably is prepared with folding lines 6 along the opposing sides of the row of items 2. Thereby the surpassing sheet parts can easily be folded in well defined manner to the position as shown in fig. 2 where the upper edges 8 of the folded side parts are flush with the top side of

the row of items.

Afterwards a wrapping is carried out with a web of shrinking foil preferably around the packing in its longitudinal direction, whereby, as shown in fig. 3, hole formations might occur in the shrinking foil in front of the folded sheet sides. The packing is now totally stabilised and even though the individual packings 2 are not particularly form stable the packing however as a whole will be able to enter into a larger palleted stacked group, as the top edges 8 of sheet 4 will contribute to the forming of a secure stacking basis for superimposed above placed similar units.

By using a transparant shrinking foil it will be unnecessary to provide the sheet 4 with prints, as it is immediately possible to identify the articles due to the prints occuring on the individual packings 2.

It is shown in Fig. 4 that a row of items 2 alternatively can be placed on an elongated cardboard sheet which is adapted for folding by the short ends of the row of items. In this case the upper edges 8 of the folded support sheet 4 will form a relatively smaller part of the top side of the packing compared to Fig. 3, i.e. this solution is suitable in the cases where individual packings 2 alone are reasonable firm in order to form a stabile support surface for stacked units.

However, it is still important that the support sheet has its upper edges 8 at the folded end or side parts situated as potential upper support edges at the ends or the sides of the individual group packings, so that the individual packings in said group packings do not have to be fully stabilised for also fulfilling an irrelevant purpose of use, viz. that of being reliably stacked and supporting for similar units which are stacked on a transport pallet.

Obviously, a group packing according the invention will be far more easy to dispose than similar conventional corrugated cardboard boxes.

Claims

1. Method of wholesale packing of block or box shaped sales units, in particular sales cartons preferably for pallet stacking of the packings, where the units are placed in a compact, boxed shaped group (2) on or in a partcover whereafter the group (2) is fixed to this cover, characterised by, that a packing sheet (4) is used, which by two parallel folding lines (6) is divided into two side sections and a middle section, where said middle section is sized in accordance with a side surface of the boxed shaped group (2) and the two side sections are sized in accordance with two opposing side surfaces adjoining said side surface, and said sheet (4) is folded so that the sheet (4) extends over three whole side surfaces of the group (2) in such a way that the outer edges of the folded side sections are flush with the free edges of the adjoining sides of the group (2), and then the item prepared in this manner is fixed by using a shrinking foil, that is shrunk sufficiently around the item to provide a surface pressure between the sheet (4) and the group of sales units and between the sales units themselves.

2. Method according to claim 1, characterised in that the units are placed compactly in a row which lenght corresponds to the length of the folding lines (6).

3. Method according to claim 1, characterised in that the units are placed compactly in a row which lenght corresponds to the distance between the folding lines (6).

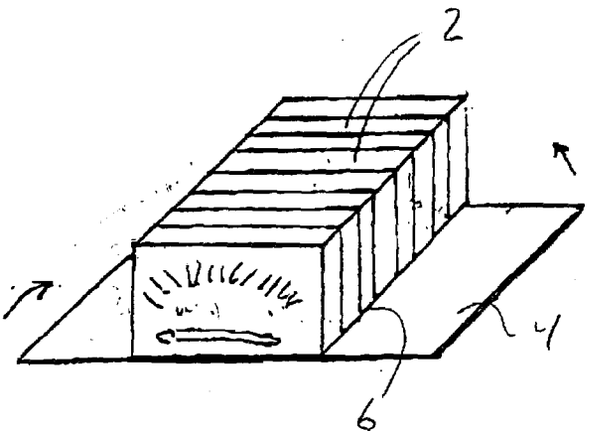

Fig. 1.

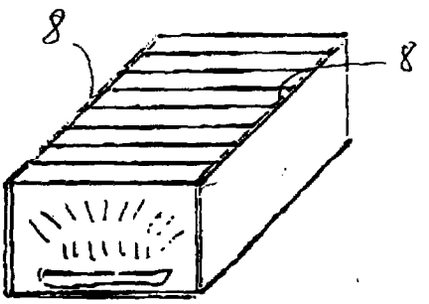

Fig. 2.

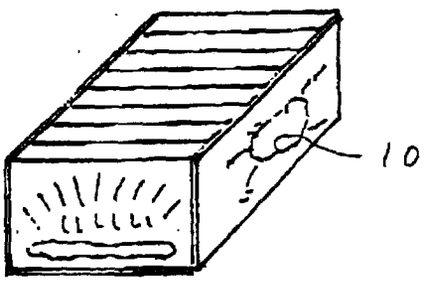

Fig. 3.

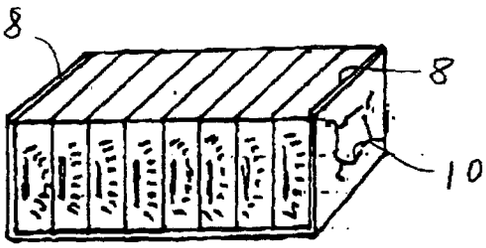

Fig. 4.

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EUROPEAN SEARCH REPORT

Application Number
EP 96 61 0012

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.6)
Y	FR-A-2 519 611 (COLGATE-PALMOLIVE) * claim 1; figure 3 *	1-3	B65D71/10
Y	DE-A-22 08 985 (H. BECK) * page 4, paragraph 2 * * figure 3 *	1-3	
Y	GB-A-2 013 607 (DEUTSCHE GERÄTEBAU) * abstract; figures *	1-3	
Y	US-A-3 404 771 (C. MANN) * column 4, line 22 - line 38 * * figures 5-7 *	1-3	
Y	DE-A-34 38 813 (PFANNI-WERKE O. ECKART) * page 6, paragraph 3 * * page 6, last line - page 7, line 12 * * figures 2,4 *	1,2	
Y	US-A-4 873 099 (M.R. RUIZ) * column 4, line 33 - line 63 * * figures 5,6 *	1,2	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6) B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	8 July 1996	Leitner, J

CATEGORY OF CITED DOCUMENTS

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