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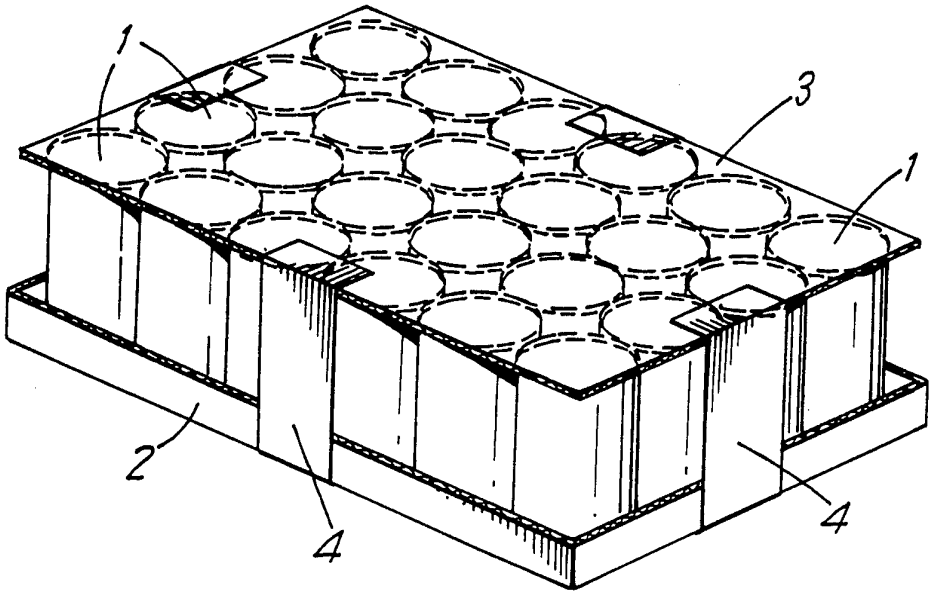
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Published
With international search report.

(54) Title: DISPLAY PACKAGING



(57) Abstract

A package for a multiple array of individually packed items, comprises a tray (2) with a raised lip, a close packed array of individual packs (1) on the tray, a planar sheet material (3) parallel to the base of the tray and overlying the top of the array of packages and fastening means (4) holding the planar sheet to the tray to hold the package together. Preferably the individual packages are arranged on the tray in inverted position with their bases uppermost so that the goods may be displaced on the shelves, for example a supermarket, by inverting the packaging so that the individual packages are upright and then removing the tray.

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DISPLAY PACKAGING

This invention relates to display packaging, that is to say packaging for goods that are supplied to a retailer, e.g. a supermarket and are displayed on the shelves for sale while still remaining at least partially within the packaging.

One form of such packaging in general use, particularly for canned products comprises a tray with a raised lip in which the products are arranged and which is then shrink wrapped in for example polythene. For display on, for example, supermarket shelves the shrink wrapping is removed and the tray with the array of individual packages is placed on the shelf.

This form of packaging has a number of disadvantages. First,it normally employs plastics material which is increasingly being perceived to be ecologically undesirable; secondly, particularly with small cans the sides of the tray hide much of the label and the information contained thereon; thirdly, the sides of the tray make it difficult for the consumer to extract the product, particularly when the products are close packed on, for example, supermarket shelves. Fourthly, it is difficult to handle the tray and load it onto a supermarket shelf once the covering film has been removed.

There has recently been proposed a sleeve packaging arrangement, especially for the packaging of such products as cereals in cardboard boxes which comprises a corrugated cardboard sleeve which is wrapped around an array of cereal boxes and is held in position such that the packets are retained within the sleeve by an adhesive paper tape.

This package has the advantage of using ecologically desirable materials but has the disadvantage that when the paper tape is cut for unloading of the product onto the shelves and the packages are pushed through the sleeve onto the shelf there is a risk that the

packages will fall over so that the shelf stacker effectively has to stack the shelf by hand. This form of packaging is moreover not suitable for use with typical collations of cylindrical cans.

This invention provides a display package arrangement which is not subject to the disadvantages of the prior systems in that it may use no polymeric materials in its construction; in the primary package the information conveyed on the label, such as the type of product, is not obscured; the product can be displayed in the open package without such information being obscured; and the product can be taken from a shelf without having to lift it over the edge of a tray. In addition the package is easier to handle when loading shelves than the shrink wrapped trays.

According to the invention packaging for a multiple array of individual packed items comprises a tray with a raised lip, a close packed array of individual packages on the tray; a planar sheet material parallel to the base of the tray overlying the top of the array of packages and fastening means holding the planar sheet to the tray for holding the package together.

The package is preferably formed by stacking the individual packages on the tray in inverted position, i.e with any writing upside down. When the package is to be opened and the goods placed on display the package is inverted so that the individual packages stand on the planar sheet material, the fastening means are released and the tray is discarded leaving the product standing in a upright position on the planar sheet.

Normally the package will comprise a single layer of individual packages.

The fastening means for the package preferably comprises a paper tape fastening. Such paper tape may be gummed or coated with pressure sensitive or heat activated adhesive or may be uncoated and secured to adhesive coated areas of the tray and planar sheet.

Other fastenings, for example polypropylene strapping may, however, equally well be used. The use of paper fastenings has ecological advantages but also has the additional advantage that it can readily be used in wide enough form to carry a bar code identification, product description, traffic codes or other useful information thereby facilitating check of the goods into and out of warehousing etc. It can also be readily printed with other desirable information.

The material for the packaging of the invention is preferably cellulose based, for example, corrugated cardboard but plastics materials may equally well be used and frequently will be used where the packaging or a part of the packaging, e.g. the tray, is intended to be returnable.

The invention will now be described in greater detail by way of example with reference to the drawing which shows one form of packaging according to the invention.

As shown in the drawing one form of package comprises two dozen cans 1 arranged in a 6 x 4 array in a corrugated cardboard tray 2.

The cans 1 are arranged in the tray 2 in inverted position, that is to say with their labels inverted.

A planar sheet 3 of corrugated card is then laid over the bases of the cans and is secured in position by strips of adhesive paper tape 4 at the sides and ends.

For display on a supermarket shelf the pack is inverted from the position shown in the drawings so that the cans stand on their bases on the planar sheet 3 and the tray 2 is removed.

It will be appreciated that if desired, primarily for transport of the packs, a number of packs, eg as shown in the drawings, can be stacked one upon the other with the tray of the upper pack

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contacting the planar sheet of the underlying pack with the whole assembly held together with adhesive paper tape so that, if desired, the array as a whole can be used as a sale display with the top layer exposed and with subsequent discard of the planar sheet and the next underlying tray as each succeeding layer becomes required for sale.

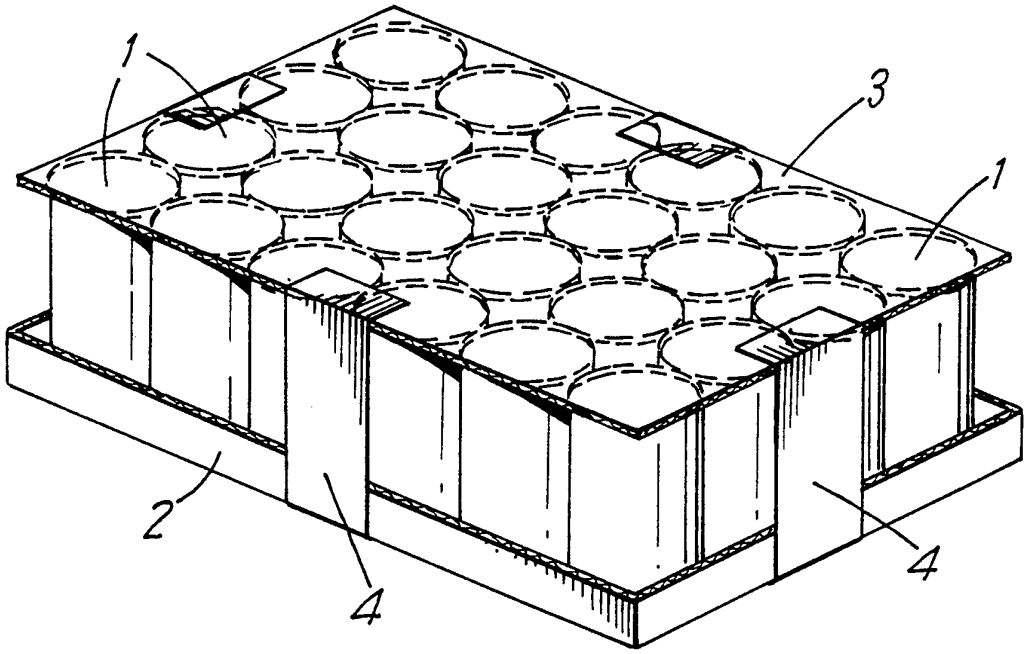
CLAIMS

1. A package including a multiple array of individually packed items comprising a tray with a raised lip, a close packed array of individual packages on the tray, a planar sheet material parallel to the base of the tray and overlying the top of the array of packages and fastening means holding the planar sheet to the tray to hold the package together.

2. A package according to Claim 1, wherein the individual packages are arranged on the tray in inverted position with their bases uppermost.

3. A method of forming a package of a multiple array of individually packed items which comprises forming a close packed array of individual packages on a tray with a raised lip, with the packages being in inverted position, placing a planar sheet material on the bases of the packages on the tray and applying fastening means to hold the planar sheet to the tray to retain the individual packages within the packaging.

4. Packaging for a multiple array of individual packed items substantially as described herein with reference to the drawing.


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INTERNATIONAL SEARCH REPORT

Inter nal Application No
PCT/GB 93/02240

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 B65D71/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 5 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US,A,4 333 570 (HEIDER) 8 June 1982 see column 3, line 41 - line 56; figure 4	1-3
Y	US,A,4 474 293 (OSBORNE) 2 October 1984 see figure 6	1-3
A	GB,A,2 122 160 (H & R JOHNSON) 11 January 1984 see the whole document	1
A	US,A,2 895 272 (KRUKONIS) 21 July 1959 see figure 7	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Date of the actual completion of the international search	Date of mailing of the international search report
26 January 1994	-3. 02. 94

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+ 31-70) 340-3016	Newell, P

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

national application No.
PCT/GB93/02240

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 4
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

See PCT Rule 6.2

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inte nal Application No
PCT/GB 93/02240

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A-4333570	08-06-82	AU-B- 510323	19-06-80
		AU-A- 2587677	14-12-78
		CA-A- 1113047	24-11-81
		DE-A,C 2723762	22-12-77
		FR-A,B 2354258	06-01-78
		GB-A- 1564772	16-04-80
		JP-C- 1157992	25-07-83
		JP-A- 52152395	17-12-77
		JP-B- 57054384	17-11-82
US-A-4474293	02-10-84	NONE	
GB-A-2122160	11-01-84	NONE	
US-A-2895272		NONE	