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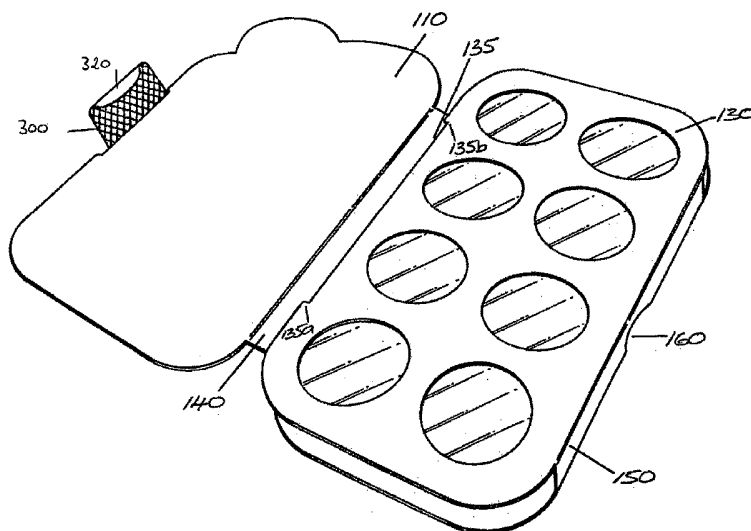
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Published:

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PRODUCT PACK



(57) **Abstract:** The invention concerns product packs, and particularly a type of packs known as "wallet packs". Packs in accordance with embodiments of the invention comprise first through third panels (110-130), each panel being connected to its neighbour by a web (140, 150) forming a spine around which the pack is folded. The pack is kept closed by a closing strip (300) which is firmly adhered to the first panel and at a proximal region thereof and releasably and adhesively attached at a distal region to a second one of the webs (150). An opening (160) is provided at the junction of the second panel (120) and the second web (150) and the free end (320) of the closing strip (300) overlies said opening (160).

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Product Pack

The invention relates to a pack for a product, particularly, but not exclusively, to a so-called "wallet pack".

A wallet pack is a type of product packaging in which product is held within a folded structure, comprising two or more adjoining panels linked by fold lines to enclose the product within it. The pack is designed to be easy to carry in the pocket and to unfold (like a wallet) to access the product within. Such packs may typically be used for pills, sweets etc.

To form a closure or sealing mechanism for wallet packs, a number of options are available. For instance, a tab extension formed on an outside panel of the packaging may engage with a corresponding slit to make a re-sealable closure. Alternatively, some form of an adhesive closing strip may be used to make the seal on the front or back of the package.

The tab type arrangements suffer from being easily ripped typically the packaging is a thin card type material and the tab is easily damaged. Damage to the tab may make proper re-closure of the package impossible, so that remaining product can come loose.

Problems with the known adhesive strip sealing arrangements include: accidental opening of the package due to the strip either not being sticky enough or losing its adhesive properties through use; the strip overlying printed material on the packaging and obscuring it; the

strip adhering to the packaging too strongly and defacing printed material when opening; the edge of the strip being too difficult to locate - hard to get the fingernail under the edge to commence opening of the package.

It is an aim of preferred embodiments of the invention to provide an improvement to the adhesive closing strip type sealing arrangements for wallet packs.

According to a first aspect of the invention, there is provided a pack which contains a product, the pack comprising first, second and third panels, wherein the first and second panels are connected together by a first web, and wherein the second and third panels are connected together by a second web, wherein the connections between panels and webs are via fold lines, wherein the pack has a closed configuration and an open configuration, wherein in the closed configuration the first and second panels are the front and rear panels and the third panel is between them and the webs serve as spines to space the first and second panels apart in order to accommodate the product therebetween, and wherein in the open configuration the product may be accessed, wherein an opening is provided at the junction of the second panel and the second web, and wherein there is provided a closing strip having a proximal region non-removably attached to the first panel and a distal region releasably and adhesively attached to the second web, wherein the free end of the distal region overlies said opening.

The arrangements above provide an opening method which eliminates the need for users to need to scrape open the end of the closing strip as the end of the strip falls

easily to hand. The positioning of the strip avoids the defacing and obscuring problems of the prior art.

Suitably, the first, second and third panels and the first and second webs are formed of a single piece of a sheet material.

In a preferred arrangement the free end of the distal region of the strip is non-adhesive, where it overlies said opening and may also be non-adhesive where it overlies the region of the second spine immediately adjacent to said opening.

The free end of the distal region of the strip is preferably located substantially at the junction of the second web and the second panel, when the pack is in its closed configuration.

The opening is suitably of maximum length in the range 0.6-3cm, preferably 1-2cm, and is of maximum width in the range 0.3-1cm, preferably 0.4-0.8cm.

The opening may be formed by two opposed curves, each extending from the junction of the second panel and the second web.

Preferably, the edge of the first panel over which the adhesive strip passes is formed with a shallow cut-out sufficiently wide to admit the strip.

The adhesive strip may carry a single adhesive, and the fact that its proximal region is non-removably attached to the first panel whereas its distal region is releasably

attached to the second spine is preferably a consequence of a difference between the surfaces of the first panel and the second spine, where contacted by the strip. For instance, the surface of the first panel may be matt where contacted by the strip, and the surface of the second spine is gloss where contacted by the strip.

Preferably, the product is of a depth corresponding substantially to the depth of the spines.

Preferably the product is provided within its own container, provided within the pack. preferably such a container is secured to the pack, for example by adhesive means. Preferably such a container is carried by the second panel or, most preferably, the third panel.

Preferably the product comprises individual units, for example capsules, tablets, pills, lozenges, briquettes, plasters, swabs, wipes, sweets, and so forth.

Preferably said container is a blister pack having individual recesses, accommodating individual units when such a blister pack is secured to a panel of the pack that panel is preferably apertured, to allow the items to be expelled through it.

Preferably the product is a medicinal product, for example a medicinal tablet, capsule or lozenge.

Thus in a preferred embodiment a blister pack containing ingestible medicinal products is secured to the third panel of the pack of the present invention, that panel

having apertures of size to pass the medicinal products, when expelled.

The invention also includes a pack precursor which, when mounted with a product, constitutes a pack as hereinbefore stated.

For a better understanding of the invention, a preferred embodiment will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 shows a perspective view of an embodiment of product pack in accordance with the invention, the pack being in a closed configuration;

Figure 2 shows a side view of the package of Figure 1 in which a closing strip associated with a front panel thereof is disengaged to allow the pack to adopt an open configuration;

Figure 3 is a perspective view of the pack of Figure 2;

Figure 4 shows the pack in a fully unfolded open configuration; and

Figures 5 through 7 show detail of the closing strip of the pack.

Referring now to Figures 1 through 7 a preferred embodiment is described.

Figures 1 and 4 in combination best show the general features of the product pack. The pack 100 comprises

first, second and third panels 110, 120, 130, the first and second panels being joined to one another by a first web 140 and the second and third panels being joined by a second web 160. A closing strip 300 adheres firmly at a proximal region thereof to the first panel 110 at a position adjacent to an edge region of the first panel 110. The three panels and two webs are formed from a single piece of card, folded.

In the closed configuration shown in figure 1, the first panel 110 forms a front face of the pack 100, the second panel 120 forms a rear face, whilst the third panel 130 carries product 200 and is folded to lie underneath the first panel 110 so that the product 200 is enclosed within the pack. The closing strip 300 is arranged such that a distal region thereof overlaps the second web 150 (which forms a first spine of the pack) and adheres to it to seal the pack closed. An opening 160 is formed at the junction of the second web 150 and the second panel 120 and the free end of the distal region of the strip 300 overlies it.

The product 200 is shown as a blister package carrying a number of packaged items such as tablets which are held in place within the blister pack and may be expelled from a rear (typically foil covered) face by applying finger pressure. The third panel 130 is bonded or adhered to the rear face of the blister pack to carry the packaged items. The third panel 130 has hole cut-outs 135 at positions corresponding to each of the packaged item positions. These cut-outs 135 allow the product to be dispensed through them. Typically the packaged items comprise medication for sore throats.

Figures 2 and 3 show the pack in a first open configuration, which will be referred to herein as the semi-open position. In this semi-open position the distal end of the closing strip 300 has been separated from the second web 150 and the first (front) panel 110 unfolded from its position overlying the third panel to provide access to the interior of the pack. It is to be noted that the webs are joined to their respective adjacent panels by fold lines or creases - these creases effectively form the webs and they allow the panels to hinge.

In the semi-open position shown in Figures 2 and 3, the third panel 130 remains in a position in which it overlies the second panel 120, sandwiching the product 200 between them. In this configuration individual product items held within the blister package could be dispensed by applying finger pressure through the third panel 130 to urge the item through the foil covered backing and out through one of the cut-outs 135.

Figure 4 shows the pack in a second open configuration, which will be referred to as the fully open position. In the fully open position the semi-opened pack of Figures 2 and 3 has been further unfolded to allow the pack to lie flat, completely exposing the product 200. From this fully open position the product may be dispensed by applying finger pressure to the blister package itself to urge the item through the foil backing and cut-out 135.

In Figure 4, the formation of the opening 160 can be seen. This opening comprises a cut-out aperture formed by

opposed curves at the junction of the second panel 120 and the second web 150.

Figure 4 also shows clearly how the first panel is sculpted at an edge region thereof adjacent to the closing strip 300 to form an indented area 115 extending parallel to a main extent of the edge along which it is located. This indented area is sufficiently wide to accommodate the closing strip 300 which, in the closed configuration, overhangs it and forms a surface over which the strip 300 may be folded to releasably join with the second web 150. Provision of the indented area gives a reduced edge length over which the closing strip 300 may be folded and refolded without deforming the whole edge, also, by indenting, the edge area outside of the indent is drawn over to overlap the second web 250, in a firm, secure manner.

Figure 4 also shows that the lateral free edge of the third panel has an indented area 170. This is to form a seating over which a leaflet or like insert may be folded. It will be observed in Figure 4 that the first web 140 is slightly wider than the second web 160. As a result, when the pack is in its closed configuration there is a slight gap between the first and third panels. As a result, a folded-over leaflet may be accommodated in the pack without distorting it, with one flap of the leaflet in the gap between the first and third panels and the other flap of the leaflet between the second panel and the tablets or lozenges carried by the third panel.

Figures 5, 6 and 7 show detail of the closing strip 300 and how this is employed within the present invention to

seal and re-seal the product pack. Figures 5 and 6 show a side view looking at the second web 150 and the distal portion of the closing strip 300. The proximal portion of the closing strip 300 remains, at all times, firmly adhered to the first panel 110, adjacent to the edge region as previously described.

Figure 5 shows the closing strip 300 in a position in which the product pack is sealed. It can be seen that there is provided a finger tab portion 310 having a different surface finish to it to the remainder of the closing strip 300. This finger tab portion 310 does not carry adhesive and protrudes over the opening 160. The adhesive free area provides protection against delamination of the second web 150.

In order to open the pack, a user will, using a finger and thumb simply grasp the finger tip portion 310 (or indeed brush it firmly with a single finger or thumb) to provide sufficient force to cause the distal portion of the closing strip 300 to come away from the second web 150. The pack may then be unfolded to access the product within as has previously been described.

It will be appreciated that the closing strip 300 and/or the pack 100 may be treated in different ways in order to provide characteristics of strong adherence to the first panel 110 and weaker adherence to the second web 150. For instance, the strip 300 may simply be designed in itself to be of a higher adhesive nature in its proximal region, to that of its distal region. Alternatively, different surface finishes may be applied to the first panel 110 and the second web 150 to provide different levels of

adherence when a closing strip 300 of uniform adhesive strength is applied to them. A third possibility would be that during manufacture, some extra processing step is carried out in order to provide the greater adherence of the proximal region to the first panel 110 - for instance, some heat treating process might be used.

Figure 7 shows a bottom plan view of a product pack and, in particular, shows the second panel 120 and how the cut out 160 is provided in that panel to be adjacent to the area of the finger tab 310 of the closing strip 300. A particular formation of the opening 160 allows a user to very easily contact with the finger tab portion 310 of the closing strip 300 and open the package.

The above arrangements of closing strip 300 and cut-out opening 160 provides a much improved arrangement over the prior art as it gives a simple means of opening and re-sealing the package.

While the invention has been described in relation to wallet packs for medicaments, it will be evident to the skilled man that the teachings of the invention may be applied to other types of package.

CLAIMS

1. A pack which contains a product, the pack comprising first, second and third panels, wherein the first and second panels are connected together by a first web, and wherein the second and third panels are connected together by a second web, wherein the connections between panels and webs are via fold lines, wherein the pack has a closed configuration and an open configuration, wherein in the closed configuration the first and second panels are the front and rear panels and the third panel is between them and the webs serve as spines to space the first and second panels apart in order to accommodate the product therebetween, and wherein in the open configuration the product may be accessed, wherein an opening is provided at the junction of the second panel and the second web, and wherein there is provided a closing strip having a proximal region non-removably attached to the first panel and a distal region releasably and adhesively attached to the second web, wherein the free end of the distal region overlies said opening.

2. A pack as claimed in claim 1, wherein the second or third panel carries the product.

3. A pack as claimed in claim 1 or 2, wherein the first, second and third panels and the first and second webs are formed of a single piece of a sheet material.

4. A pack as claimed in any preceding claim, wherein the free end of the distal region of the strip is non-adhesive, where it overlies said opening.

5. A pack as claimed in claim 4, wherein the free of the distal region is non-adhesive, where it overlies said opening and where it overlies the region of the second spine immediately adjacent to said opening.

6. A pack as claimed in any preceding claim, wherein the free end of the distal region of the strip is substantially at the junction of the second web and the second panel, when the pack is in its closed configuration.

7. A pack as claimed in any preceding claim, wherein the opening is of maximum length in the range 0.6-3cm, preferably 1-2cm, and is of maximum width in the range 0.3-1cm, preferably 0.4-0.8cm.

8. A pack as claimed in any preceding claim, wherein the opening is formed by two opposed curves, each extending from the junction of the second panel and the second web.

9. A pack as claimed in any preceding claim, wherein the edge of the first panel over which the adhesive strip passes is formed with a shallow cut-out sufficiently wide to admit the strip.

10. A pack as claimed in any preceding claim, wherein the adhesive strip carries a single adhesive, and the fact that its proximal region is non-removably attached to the first panel whereas its distal region is releasably attached to the second spine is a consequence of a difference between the surfaces of the first panel and the second spine, where contacted by the strip.

11. A pack as claimed in claim 10, wherein the surface of the first panel is matt where contacted by the strip, and the surface of the second spin is glòss where contacted by the strip.

12. A pack as claimed in any preceding claim, wherein the product is of a depth corresponding substantially to the depth of the spines.

13. A pack as claimed in any preceding claim, wherein the product is a blister pack of medicinal tablets, capsules or lozenges carried by the third panel and wherein the panel is perforate, to allow the tablets, capsules or lozenges to be expelled through it.

~~14.~~ A pack precursor ~~which, when mounted with a~~ product, constitutes a pack as claimed in any preceding claim.

15. A pack or pack precursor substantially as hereinbefore described, with particular reference to the accompanying drawings.

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FIG. 1

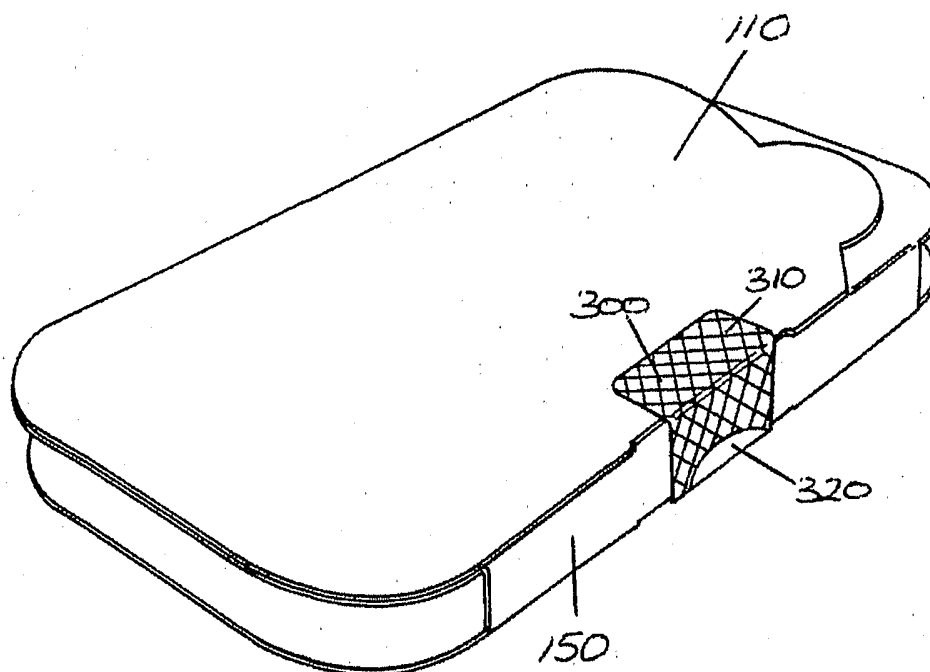
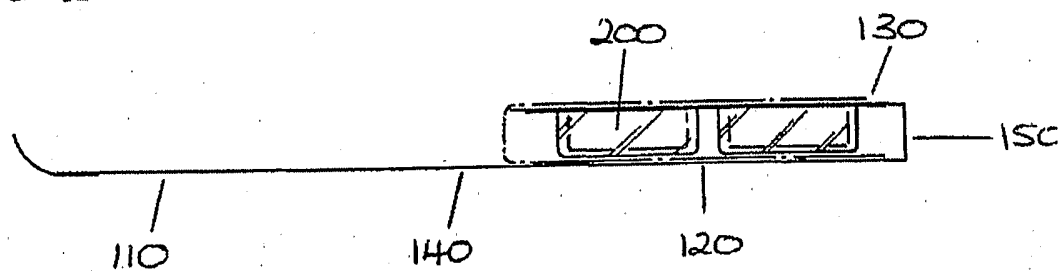


FIG. 2



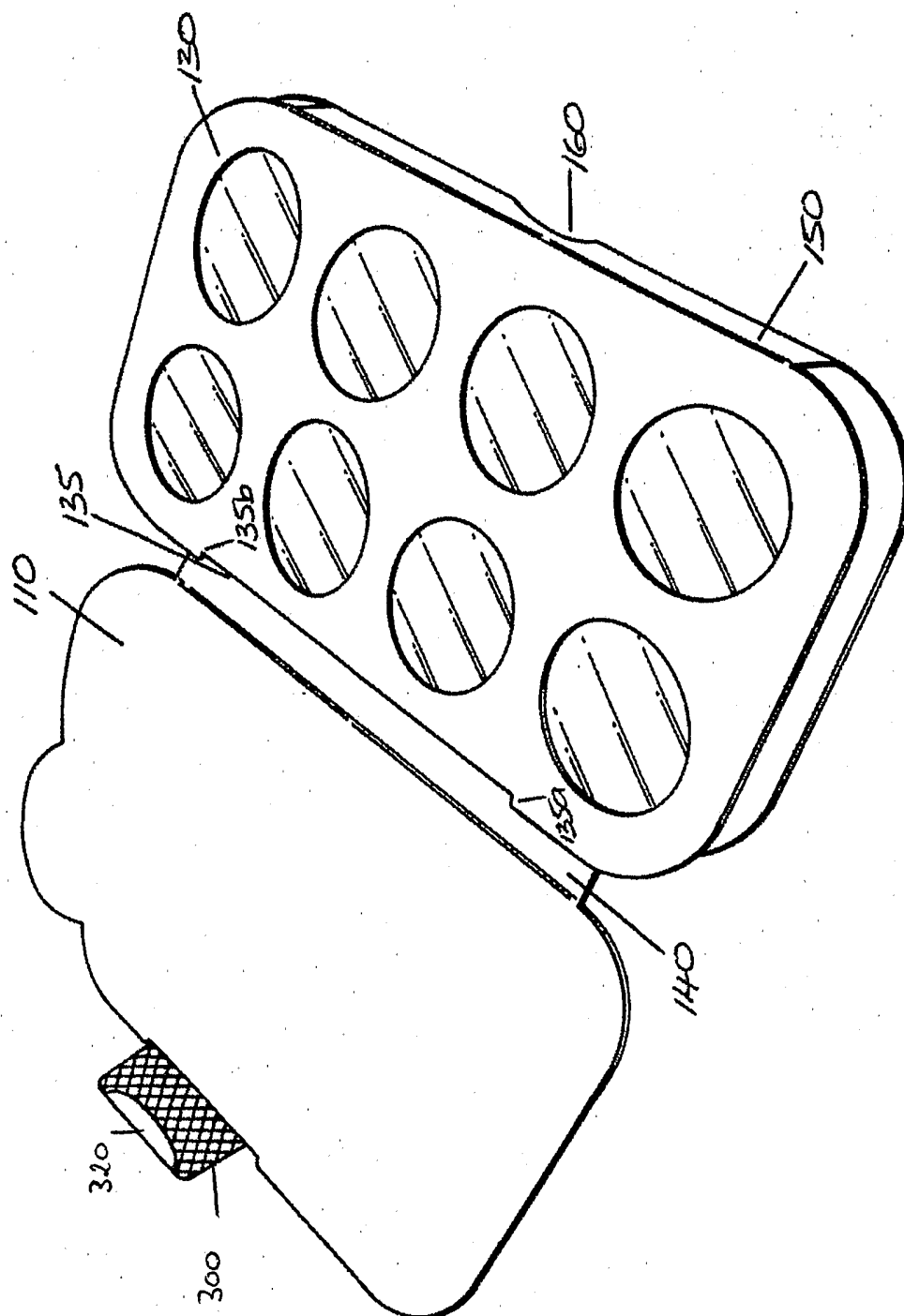


FIG 3

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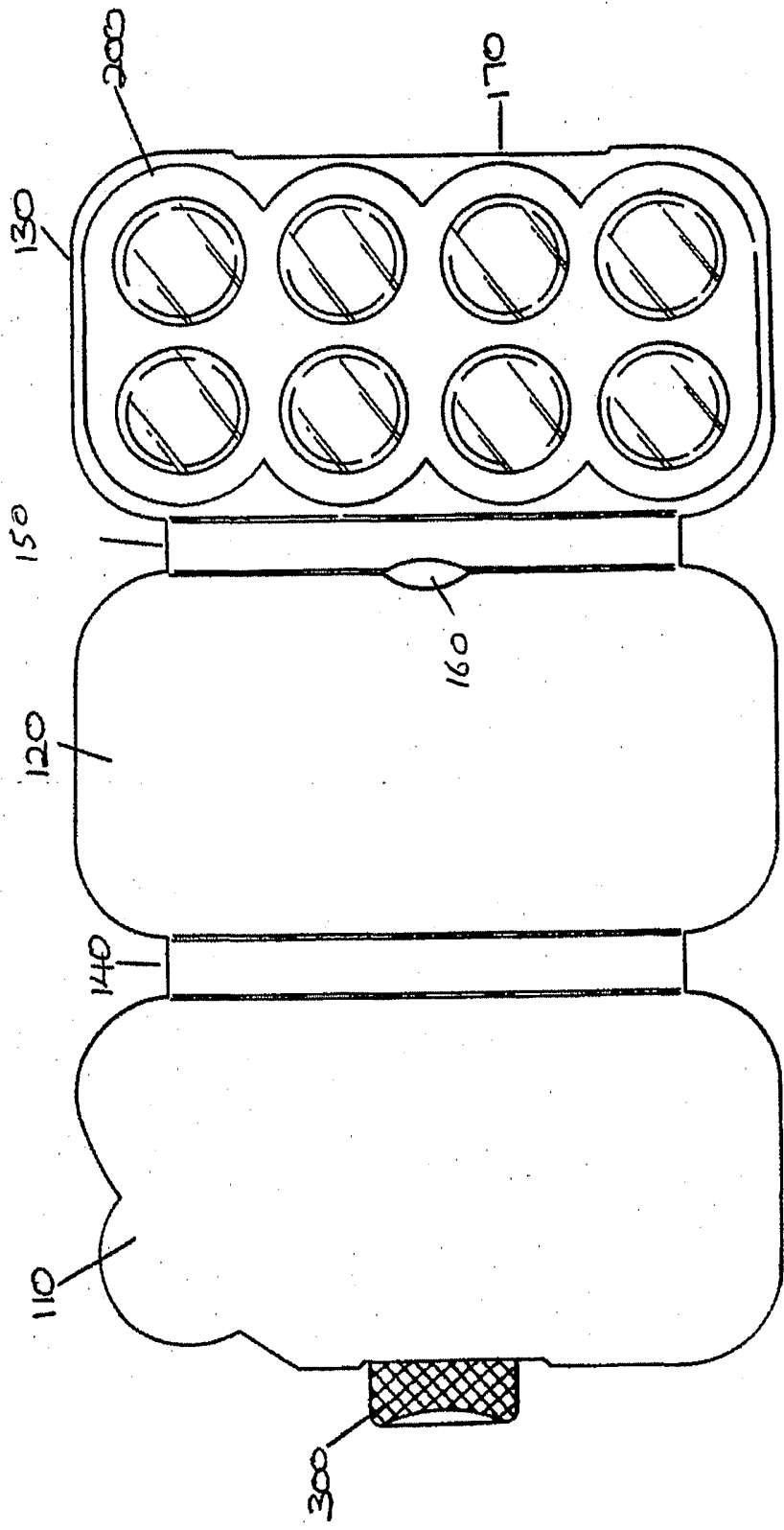


FIG. 4

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FIG. 5

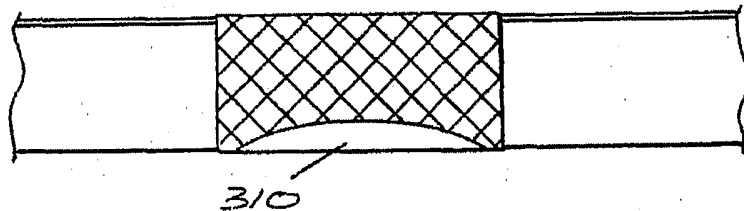


FIG. 6

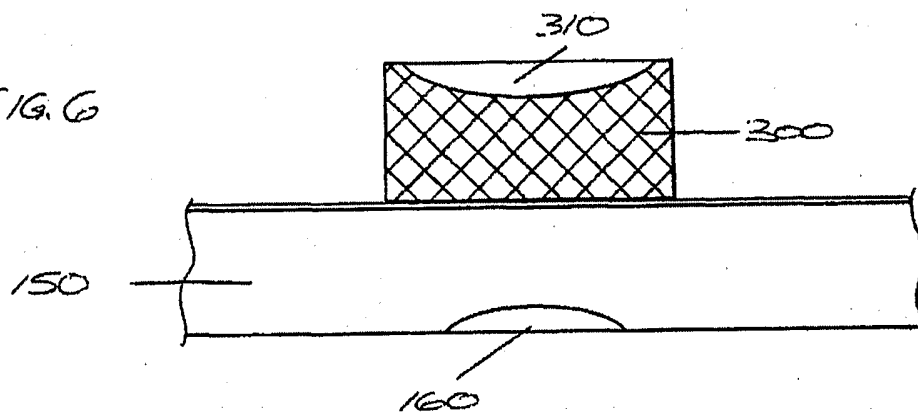
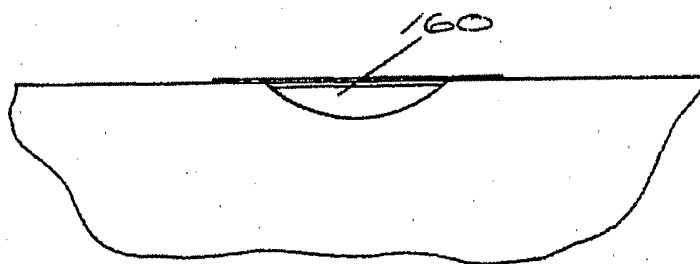


FIG. 7



INTERNATIONAL SEARCH REPORT

Interr il Application No
PC1/GB2005/001275

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65D83/04

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 7 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)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2 266 880 A (NEAL CHARLES * BRYANT) 17 November 1993 (1993-11-17) figures 3,4 -----	1, 14
A	GB 802 499 A (IVERS-LEE COMPANY) 8 October 1958 (1958-10-08) figures 1,2 -----	1, 14
A	US 3 076 541 A (VOLCKENING LLOYD I) 5 February 1963 (1963-02-05) figure 2 -----	1, 14

☐ 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
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *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

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *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.
- *&* document member of the same patent family

Date of the actual completion of the international search

24 June 2005

Date of mailing of the international search report

06/07/2005

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2005/001275

Box II Observations where certain claims were found unsearchable (Continuation of item 2 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.: 15
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 FURTHER INFORMATION sheet PCT/ISA/210
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 III Observations where unity of invention is lacking (Continuation of item 3 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 searched 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.

Continuation of Box II.2

Claims Nos.: 15

Claim 15 does not meet the requirement of Rule 6.2.a PCT.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/GB2005/001275

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2266880	A	17-11-1993	NONE	
GB 802499	A	08-10-1958	NONE	
US 3076541	A	05-02-1963	NONE	