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(71) Applicant: **Hozelock Limited**
Aylesbury, Buckinghamshire HP17 8JD (GB)

(72) Inventor: **Young, Matthew**
Great Horwood,
Buckinghamshire, MK17 OQW (GB)

(74) Representative: **Morton, Colin David et al**
Keith W Nash & Co.
Pearl Assurance House
90-92 Regent Street
Cambridge CB2 1DP (GB)

(54) Hanger for supporting a product for sale and blank therefor

(57) A blank for making a hanger is formed from a single sheet of cardboard and has two panels (1a, 1b) connected along a hinge line (2). Each panel has an opening (4) spanned by a bridging portion (7) integrally formed with the remainder of the panel. In use, the panels (1a, 1b) are folded together about the hinge line (2) so that the registering openings (4) together define a space accommodating a product (12) which is retained in the space by the bridging portions (7). The panels (1a, 1b) are held in face-to-face relationship by adhesive, the resulting hanger being suspended on a rail at the point of sale. The product is clearly displayed by the hanger which is tamper evident.

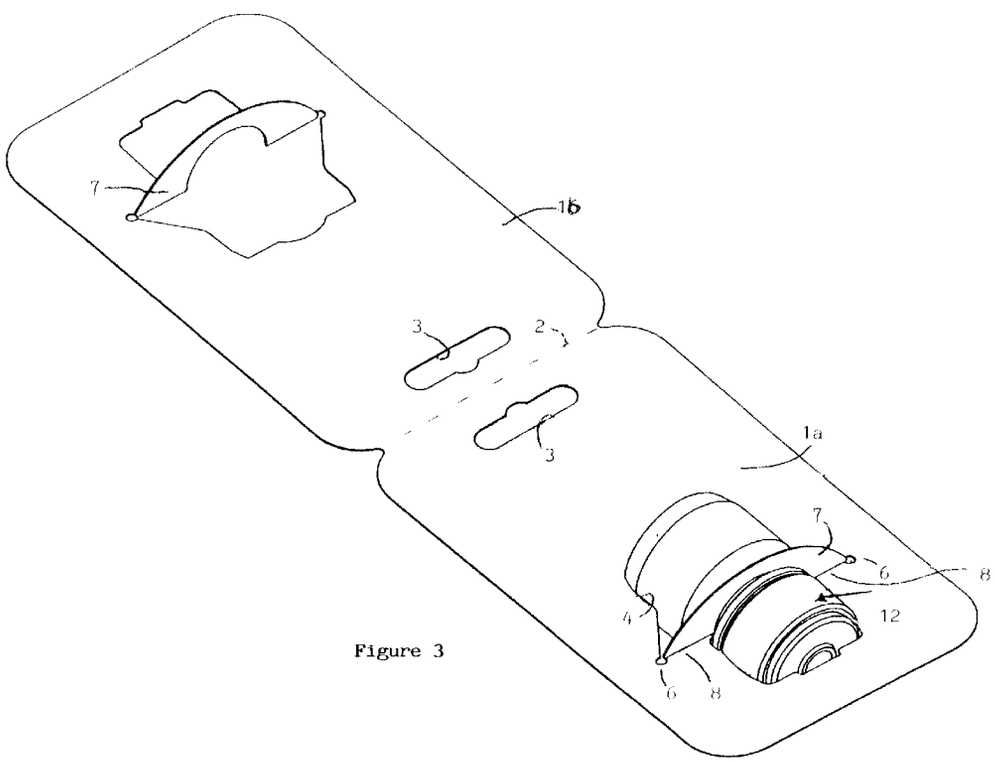

Figure 3

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Description

This invention relates to a hanger for supporting a product for sale and a blank for erection into such a hanger.

According to one aspect the invention provides a blank for making a hanger for supporting a product for sale, the blank comprising two panels of sheet material, each panel being formed with an opening spanned by a bridging portion integrally formed with the remainder of the panel, the panels being capable of being brought into face-to-face engagement with the openings in substantial registration so that in use the registering openings define a space for accommodating the product which is retained in the space by virtue of the bridging portions embracing the product.

Preferably the two panels are formed from a single sheet of material, conveniently cardboard, the two panels being inter- connected along a hinge line about which the two panels are foldable to bring the openings into registration. One surface of the blank may carry adhesive by which the folded panels can be held in face-to-face relationship.

Each bridging portion preferably spans opposite sides of the corresponding opening each end of the bridging portion adjoining the remainder of the corresponding panel along a fold line about which the bridging portion is capable of being folded from its initial position in the plane of the corresponding panel to its operative position in which it projects from the plane of the corresponding panel for embracing the corresponding side of the product.

To enable the hanger made from the blank to be suspended, each panel preferably has an elongated hole positioned in the panel so that when the two panels are brought into face to face engagement the two holes define a slot for suspending the hanger with its product on a rail, normally at the point of sale in a retail establishment.

The opening in each panel may be a slot which extends to an adjacent edge of the panel, but the opening is preferably a hole which is completely surrounded by material of the panel and which has a shape chosen, in relation to the shape of the product, so that the periphery of the opening substantially locates the product in the plane of the hanger. Also, each bridging portion is preferably shaped, in relation to the shape of the product, such that the two bridging portions co-operate to prevent the product falling out of the space defined by the registering openings. In the preferred embodiment, where the produce has a neck in which the bridging portions locate to retain the product, the edge of the bridging portion which is innermost after folding is curved, preferably substantially semi-circular, so that the two inner edges of the bridging portions co-operate to form a substantially circular edge for location in the neck of the product.

According to another aspect of the invention there is provided a hanger supporting and displaying a product for sale, the hanger comprising two panels of sheet material, each panel being formed with an opening spanned by a bridging portion integrally formed with the remainder of the panel, the two panels being in face-to-face engagement with the openings in substantial registration, the registering openings defining a space which accommodates the product which is retained in the space by the bridging portions embracing the product.

Each bridging portion is preferably connected to the remainder of the corresponding panel about a hinge or fold line about which the bridging portion is folded so as to occupy a plane substantially at right angles to the plane of the hanger.

A hanger according to the invention, and a blank therefor, will now be described by way of example with reference to the accompanying drawings, in which:

Figure 1 is a plan view of the blank,

Figure 2 is a isometric view showing the blank and the product to be suspended and displayed in a hanger formed by the blank,

Figure 3 shows the product located in one panel of the blank, before folding of the other panel,

Figure 4 shows the other panel being folded onto the product, and

Figure 5 shows the final assembly of hanger and product ready for suspension on a rail at a point of sale.

Referring principally to Figure 1, the blank is shaped from a single sheet of cardboard so as to have two identical panels 1a, 1b which are interconnected along a fold line which forms the transverse line of symmetry of the blank. The panel 1a will be described in detail, it being understood that the panel 1b is identical.

Adjacent the fold line 2, the panel 1a has a slot 3 corresponding in shape to a standard slot incorporated in backing cards used for suspending products at the point of sale. Remote from the fold 2 line, the panel 1a has an opening 4 completely surrounded by the material of the panel 1a. The opening 4 is shaped to suit the shape of the product to be accommodated and displayed, having a lower substantially rectangular part and an upper wider part with downwardly diverging edges 5 terminating in respective perforations 6. A bridging portion 7, integral with the remainder of the panel 1a, spans opposite sides of the opening 4, with the ends of the bridging portion being connected to the remainder of the panel 1a along fold lines 8. The two fold lines 8 are aligned with one another, extend transversely across the width of the panel and each terminates at its outer end in the corresponding perforation 6. The lower edge 9 of the bridging portion 7 is semi-circular and the

upper edge 10 is arcuate and of a larger radius, to provide a substantial length to each of the fold lines 8.

The blank is intended to form a hanger for supporting and displaying a product in the form of a plastics hose connector shown at 12 in Figure 2. The hose connector 12 is conventional, having an outer sleeve 13 and a threaded cap 14 between which is disposed a reduced diameter neck 15. As has been mentioned, the shape of the opening 4 is chosen to complement the outer shape of the hose connector 12 so that when the hose connector 12 is placed in the opening 4 the shape of the latter substantially locates the hose connector 12 in the plane of the panel.

Assembly of the hose connector with the blank takes place in the following manner. The connector 12 is first lowered into an opening 4 in one of the panels (in this case panel la), as indicated by arrow 16 in Figure 2. Engagement of the hose connector 12 with the bridging portion 7 causes the latter to be folded, out of the plane of the panel la, through substantially 90° to an operative position in which the bridging portion 7 occupies a plane substantially at right angles to the plane of the panel 1a. Folding movement of the bridging portion 7 with respect to the panel 1a occurs about the corresponding pair of fold lines 8. Viewing the blank as in Figure 2, the bridging portion 7 is folded below the plane of the corresponding panel la, the hose connector 12 being cradled in the opening 4 and being supported on its underside by the bridging portion 7.

Figure 3 is a isometric view of the underside of the assembly at this intermediate stage, Figure 3 showing the bridging portion 7 folded out of the plane of the panel and locating in the neck 15 of the hose connector 12. In Figure 3, the bridging portion in the panel 1b is shown folded out of the plane of the panel 1b although this other bridging portion 7 is not thus folded until a later stage in the process, as will be described.

With the hose connector 12 cradled in the opening 4 in the panel 1a the other panel 1b is folded about the fold line 2 so as to bring the two panels 1a, 1b into face-to-face engagement with the holes 3 in registration and the openings 4 in registration. An intermediate stage in this folding operation is illustrated in Figure 4. As the two panels 1a, 1b are brought together, the bridging portion 7 of the panel 1b, which hitherto has been in the plane of the panel 1b, engages the hose connector 12 and is, by virtue of this engagement, folded out of the plane of the panel 1b about the corresponding fold lines 8.

The two panels 1a, 1b are sealed together in face-to-face relationship (Figure 5) by suitable adhesive or heat sealing. As a result, the hose connector 12 is located in the space defined by the registering openings 4 and is embraced by the two bridging portions 7 which locate in the neck 15 to prevent the hose connector 12 falling out of the space defined by the registering openings 4. The aligned holes 3 provide a slot for suspending the hanger on a rail at the point of sale in a retail establishment. The hose connector 12 is clearly displayed by the hanger which is tamper evident in that the hose connector cannot be removed without rupturing one of the bridging portions or tearing the backing card formed by the laminated panels 1a, 1b. The fold lines 8 are of a substantial length to prevent unwanted tearing along the fold lines 8 before the product is sold, and the perforations 6 act to reduce the chances of tears starting at the outer ends of the fold lines.

After purchase, the hose connector is released from the hanger by tearing one or both bridging portions 7, allowing the hose connector 12 to be removed from the space in which it has hitherto been retained. The hose connector 12 can therefore be removed from the hanger without the use of tools or sharp implements and the hanger contains no sharp features which might injure purchasers or users, either when closed or opened. The hanger, being made from a single material like card, is suitable for recycling without the need to separate components made of different materials.

The described hanger has the following advantages:

- the hinge 2 is integral with the panels
- the blank is easily made and assembly of the blank and product is easily accomplished, particularly on automated production lines
- the bridging portions are automatically, folded to their operative positions as a result of engagement with the product
- the product is readily visible because the bridging portion obscure the product to a very small extent

The above contrasts with known packaging which frequently obscures the product at the point of sale and, if using blister packaging, is made from different materials which are either not easily separable or involve a more expensive construction.

Claims

1. A blank for making a hanger for supporting a product for sale, the blank comprising two panels of sheet material, each panel being formed with an opening spanned by a bridging portion integrally formed with the remainder of the panel, the panels being capable of being brought into face-to-face engagement with the openings in substantial registration so that in use the registering openings define a space for accommodating the product which is retained in the space by virtue of the bridging portions embracing the product.

2. A blank according to claim 1, wherein the two panels are formed from a single sheet of material, the

two panels being interconnected along a hinge line about which the two panels are foldable to bring the openings into registration.

3. A blank according to claim 1 or 2, wherein one surface of the blank carries adhesive by which the folded panels can be held in face-to-face relationship.

4. A blank according to any of the preceding claims, wherein each bridging portion spans opposite sides of the corresponding opening, each end of the bridging portion adjoining the remainder of the corresponding panel along a fold line about which the bridging portion is capable of being folded from its initial position in the plane of the corresponding panel to its operative position in which it projects from the plane of the corresponding panel for embracing the corresponding side of the product.

5. A blank according to claim 4, wherein each opening is completely surrounded by the material of the panel.

6. A blank according to claim 4 or 5, wherein each bridging portion is shaped, in relation to the shape of the product, such that the two bridging portions co-operate to prevent the product falling out of the space defined by the registering openings.

7. A blank according to claim 7, wherein the edge of the bridging portion which is innermost after folding is curved, so that the two inner edges of the bridging portions co-operate to form a substantially circular edge for location in a neck of the product.

8. A blank according to any of the preceding claims, wherein each panel has an elongated hole positioned in the panel so that when the two panels are brought into face to face engagement the two holes define a slot for suspending the hanger with its product on a rail.

9. A hanger supporting and displaying a product for sale, the hanger comprising two panels of sheet material, each panel being formed with an opening spanned by a bridging portion integrally formed with the remainder of the panel, the two panels being in face-to-face engagement with the openings in substantial registration, the registering openings defining a space which accommodates the product which is retained in the space by the bridging portions embracing the product.

10. A hanger according to claim 9, wherein each bridging portion is connected to the remainder of the corresponding panel about a hinge or fold line about which the bridging portion is folded so as to occupy a plane substantially at right angles to the plane of the hanger.

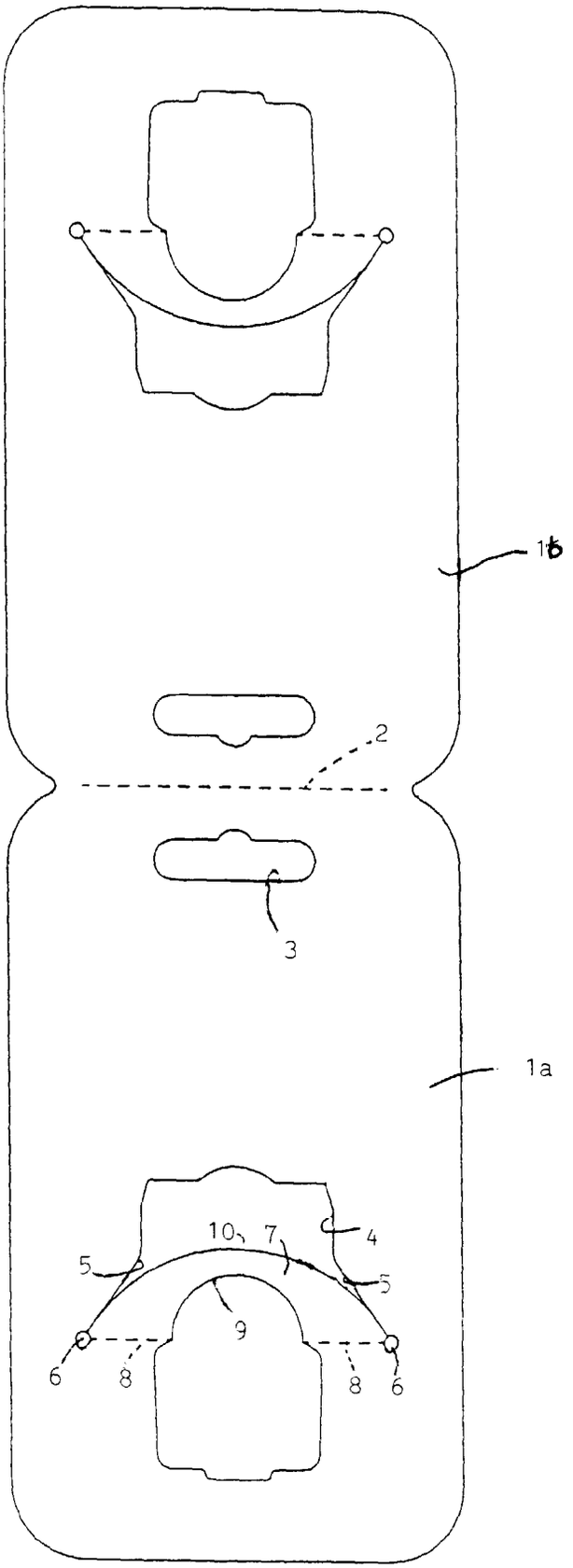

Figure 1

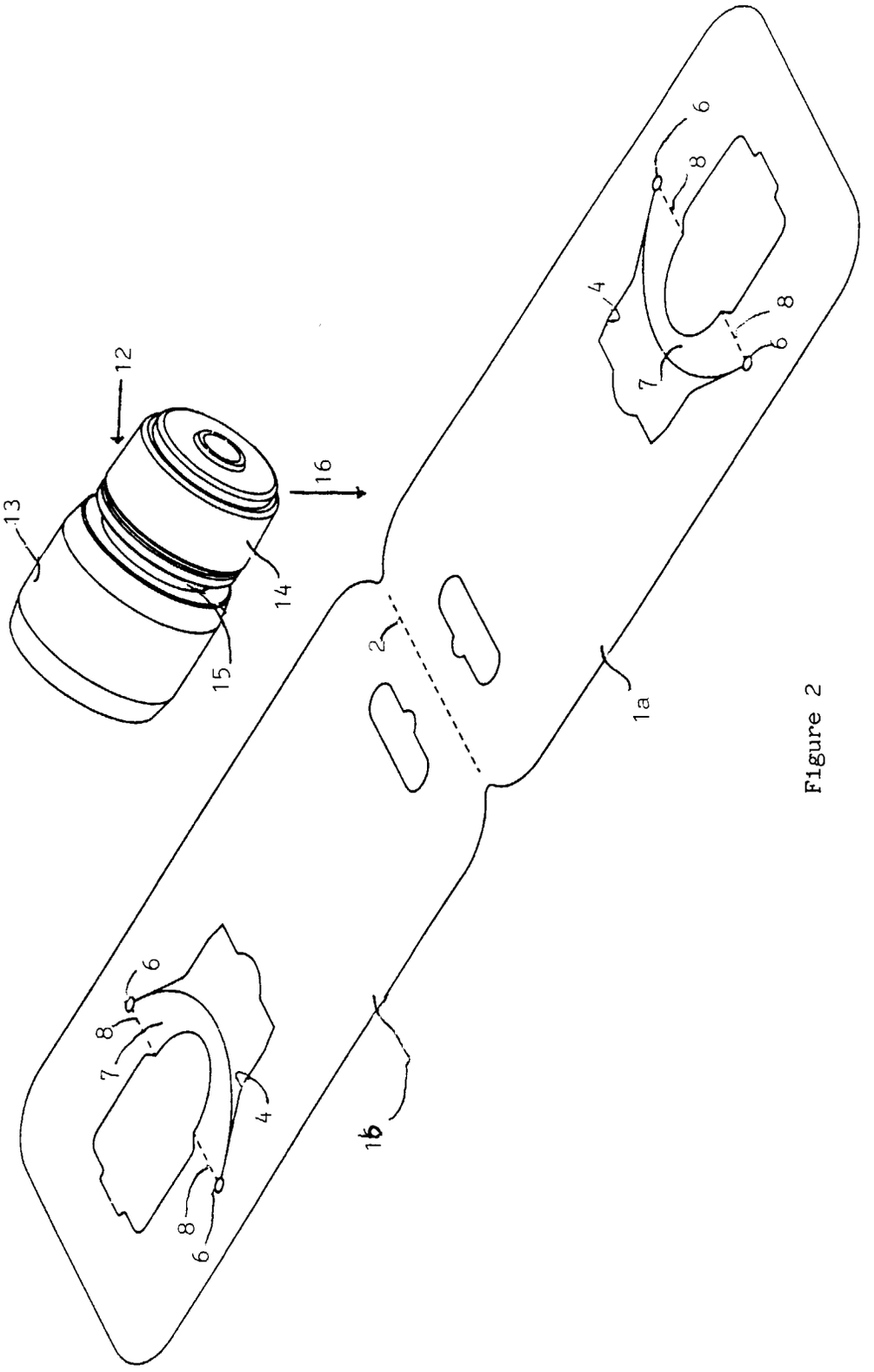

Figure 2

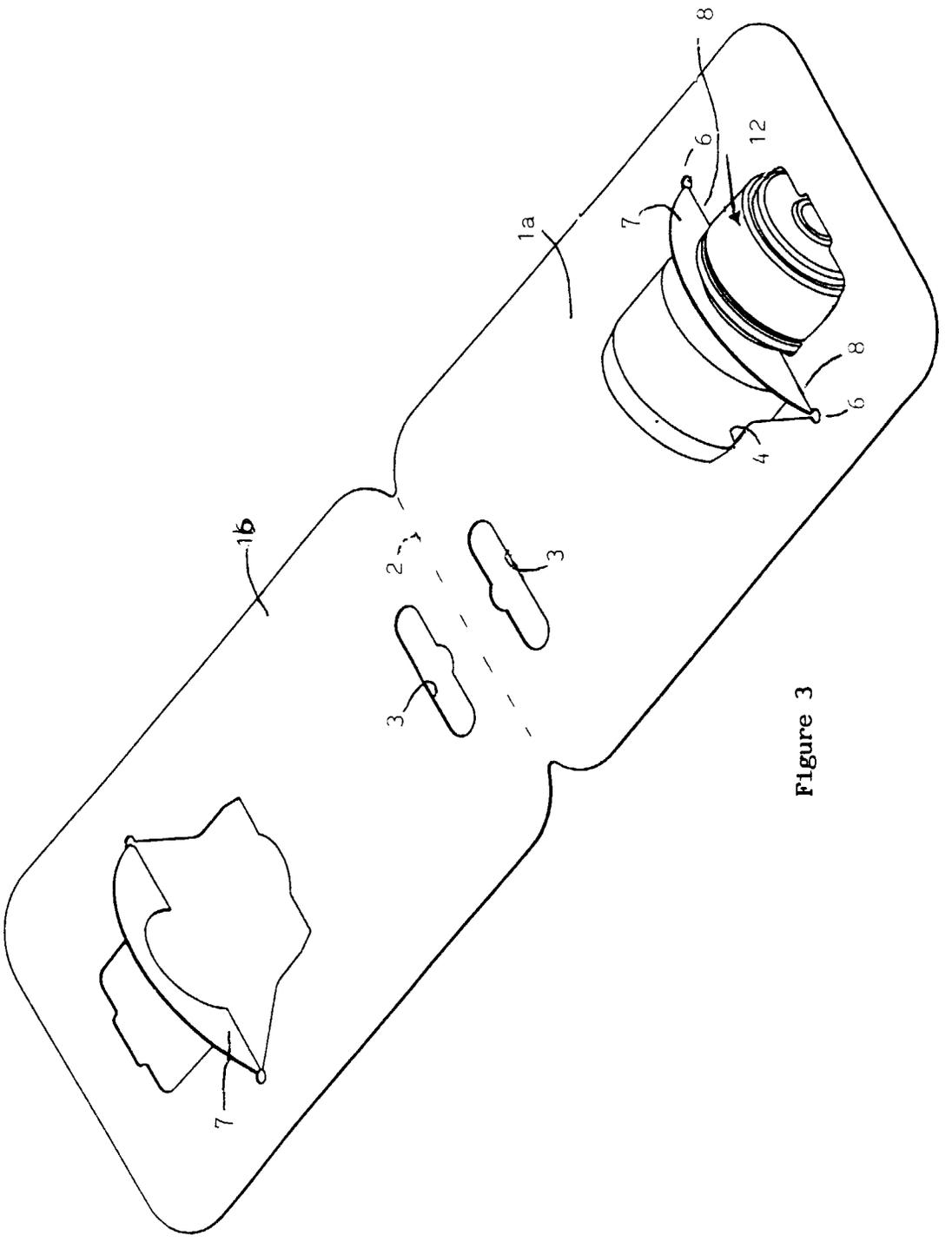

Figure 3

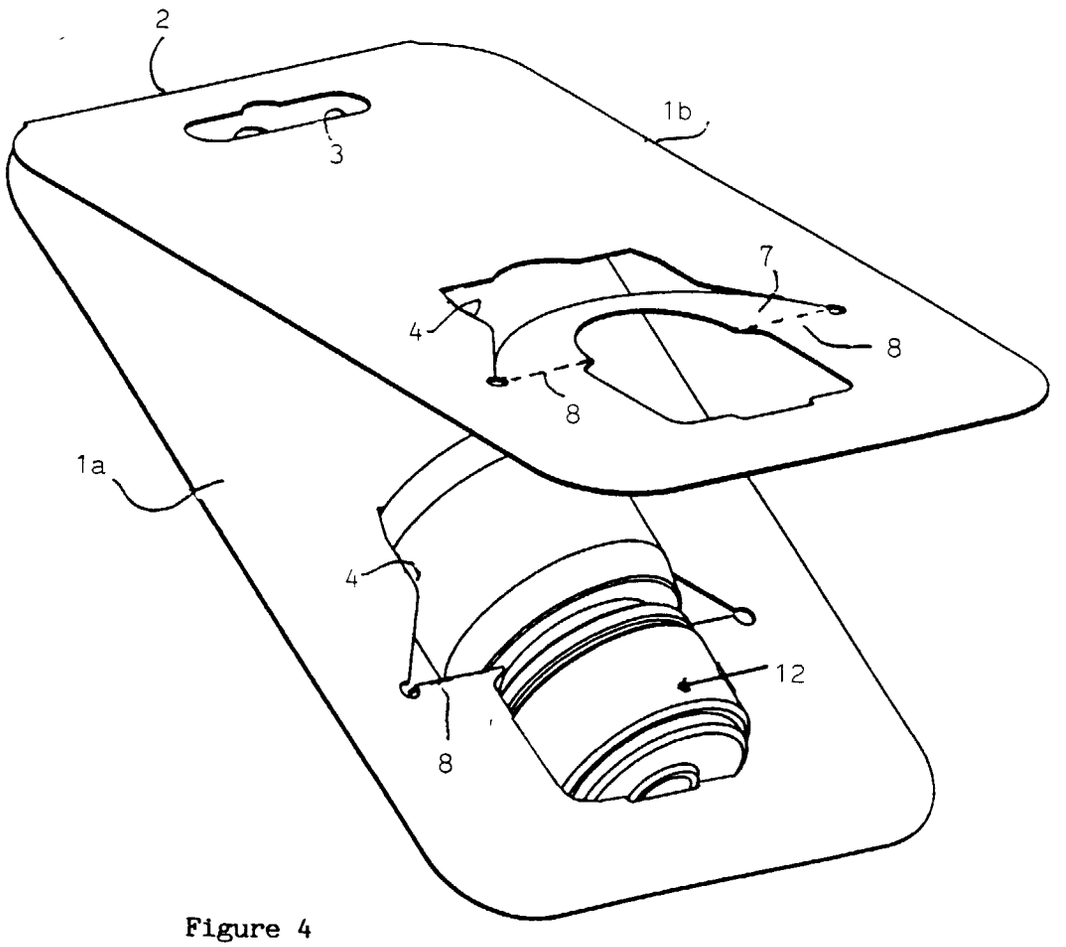

Figure 4

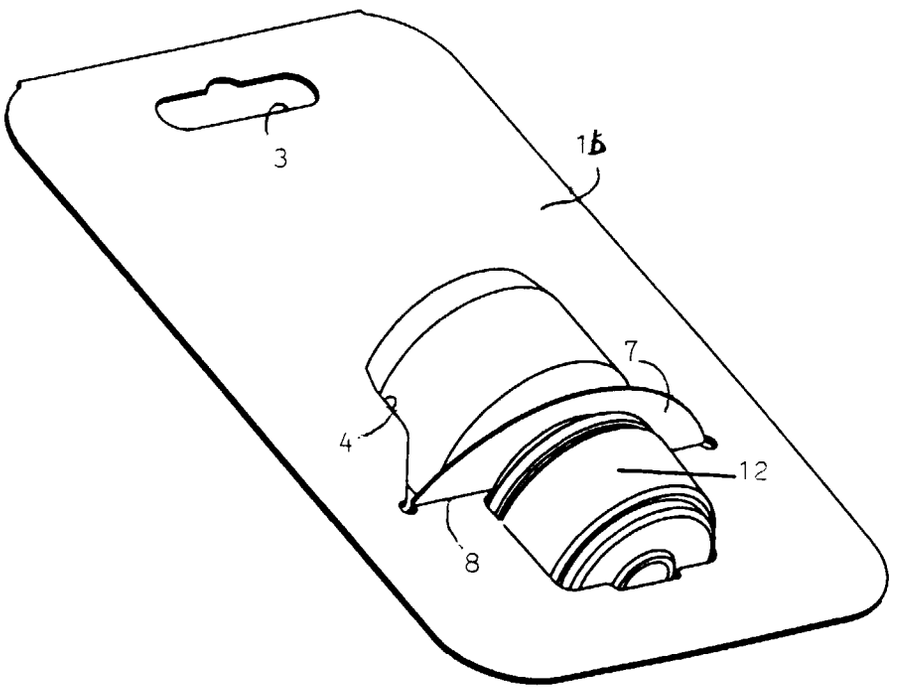

Figure 5

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EUROPEAN SEARCH REPORT

Application Number
EP 97 30 4877

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)
X	US 4 706 804 A (HALL DAVID G) 17 November 1987 * column 2, line 37 - column 3, line 53; figures *	1-4,6-10	B65D73/00
A	US 3 322 268 A (LARKIN) 30 May 1967 * column 1, line 71 - column 2, line 34; figures *	1-10	
A	US 3 370 733 A (GIESLER JERRY B) 27 February 1968 * column 2, line 54 - column 3, line 72; figures 1-5 *	1-10	
			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
BERLIN	14 October 1997	Olsson, B

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
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E : earlier patent document, but published on, or after the filing date
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