11 Publication number:

**0 256 672** A1

(12)

## **EUROPEAN PATENT APPLICATION**

21 Application number: 87306295.4

(51) Int. Ci.4: G09F 3/02

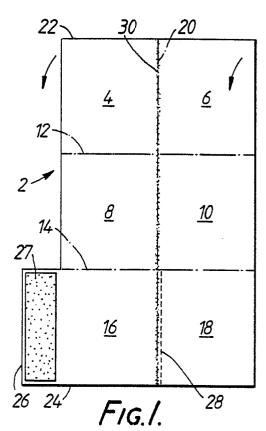
2 Date of filing: 16.07.87

3 Priority: 16.07.86 GB 8617275

43 Date of publication of application: 24.02.88 Bulletin 88/08

Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

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- 54 Labels and manufacture thereof.
- A method of producing a label for attachment to a container, the method comprising the steps of:-
- (a) providing a longitudinal sheet having a row of a plurality of pairs of panels, each pair being separated from an adjacent pair by a respective transverse fold line and there being a longitudinal fold line separating the panels of each pair, one end pair of panels constituting front and back cover panels respectively for the sheet and the front cover panel having a transversely extending flap;
- (b) applying a strip of glue along the longitudinal fold line on one side of the sheet;
- (c) folding the sheet about the or each transverse fold line so that the panels of the sheet other than the front and back cover panels are superposed over the front and back cover panels, the plurality of pairs of panels being adhered together by the glue strip;
- (d) folding the sheet about the longitudinal fold line so that the front and back cover panels enclose the remaining panels, the flap of the front cover panel extending transversely beyond the remaining panels and the back cover panel thereby to have a rearwardly exposed surface, and
- (e) separating the sheet along the transverse fold lines thereby to form a booklet.



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## LABELS AND MANUFACTURE THEREOF

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The present invention relates to a method of producing a label and to a label.

It is frequently desirable to label a container with a so-called "extended text" label which has a large surface area which can carry a large amount of printed information relating to the product in the container.

The present invention aims to provide such a label.

Accordingly, the present invention provides a method of producing a label for attachment to a container, the method comprising the steps of:-

- (a) providing a longitudinal sheet having a row of a plurality of pairs of panels, each pair being separated from an adjacent pair by a respective transverse fold line and there being a longitudinal fold line separating the panels of each pair, one end pair of panels constituting front and back cover panels, respectively, for the sheet and the front cover panel having a transversely extending flap;
- (b) applying a strip of glue along the longitudinal fold line on one side of the sheet;
- (c) folding the sheet about the or each transverse fold line so that the panels of the sheet other than the front and back cover panels are super posed over the front and back cover panels, the plurality of pairs of panels being adhered together by the glue strip;
- (d) folding the sheet about the longitudinal fold line so that the front and back cover panels enclose the remaining panels, the flap of the front cover panel extending transversely beyond the remaining panels and the back cover panel thereby to have a rearwardly exposed surface; and
- (e) separating adjacent pairs of panels of the sheet by removing the transverse fold lines thereby to form a booklet.

The present invention further provides a label for attachment to a container, the label comprising a booklet having a plurality of leaves connected along a spine, the leaves comprising a front cover panel and a back cover panel enclosing a plurality of remaining panels, the free edge of the front cover panel which is opposite the spine having a flap which extends transversely beyond the remaining panels and the back cover panel thereby to have a rearwardly exposed surface, and a support web to which the back cover panel and the rearwardly exposed surface of the flap are adhered.

An embodiment of the present invention will now be described by way of example only with reference to the accompanying drawings, in which:

Figure I is a plan view of a sheet prior to folding;

Figure 2 shows the sheet of Figure I after a first folding step;

Figure 3 shows the sheet of Figure 2 after a second folding step;

Figure 4 shows the sheet of Figure 3 after a third folding step;

Figure 5 shows the folded sheet of Figure 4 adhered to a support web to form a label in accordance with the invention; and

Figure 6 shows a booklet which has been torn off from the label shown in Figure 5.

Referring to the drawings, a longitudinal sheet 2 e.g. of paper has a longitudinal row of three pairs of panels. Two end panels 4,6 of the row are separate from two middle panels 8,10 of the row by a first transverse fold line I2. The two middle panels 8,10 are separated by a second transverse fold line 14 from two end panels 16,18 at the other end of the row which are to form a front cover panel 16 and a back cover panel 18 for the remaining panels of the sheet 2 when folded in the manner described below. A longitudinal fold line 20 extends between the two end edges 22,24 of the strip and separates the panels of each pair. Each of the panels other than the front cover panel 16 is of substantially the same dimensions. The front cover panel 16 has a transversely extending flap 26 along its free side edge. The surface of the flap 26 is coated with a band 27 of a material which renders the paper of the sheet 2 hydrophobic. The band 27 may be formed of a mixture of a polysiloxane and a varnish and is of such a composition that paper which has a water soluble adhesive thereon may be releasably adhered to the flap 26. Typically the band 27 comprises 90 to 99.5% polysiloxane, such as a poly siloxane manufactured under the code name WS 70M and WS 782 by Wacker and sold in Great Britain by Ambersil Limited, Basingstoke, Hampshire, U.K. as Silicone Fluid Fl00, and 0.5 to 10% varnish, such as an over printing varnish made by Fishburn under the code name of XF 05546. A line of perforations 28 extends adjacent to the longitudinal fold line 20 down the central side edge of the back cover panel I8. The line of perforations 28 is preferably formed when the sheet is die-cut from a larger sheet to the required dimensions.

To make the label of the invention, a strip of glue 30, such as a water soluble adhesive e.g. poly vinyl alcohol adhesive, is applied to the sheet 2 along the length of the lonitudinal fold line 20. The glue strip 30 is illustrated diagrammatically in Figures I and 2 as a wavy line. Then, as shown in Figure I, the two end panels 4,6 are folded about the first transverse fold line I2 to lie superposed over the middle panels 8,10. The two end panels

4,6 are adhered to the two middle panels 8,10 in the region of the longitudinal fold line 20 by the glue strip 30 between them. Subsequently, as shown in Figure 2, the two end panels 4, 6 together with the two middle panels 8,10 are folded about the second transverse fold line 14 to lie superposed over the front and back cover panels 16, 18. The two end panels 4,6 are adhered to the front and back cover panels 16,18 in the region of the longitudinal fold line 20 by the glue strip between them. Then, as shown in Figure 3, those panels 4, 8, 16 which lie on one side of the longitudinal fold line 20 and include the front cover panel 16 are folded about the longitudinal fold line 20 to be superposed over those panels 6, I0, I8 which are on the other side of the longitudinal fold line 20 and include the rear cover panel I8. The resultant folded sheet 2 is shown in Figure 4, with the pairs of panels being adhered together by the glue strip 30 and the flap 26 on the front cover panel 16 extending past the remaining panel at a transverse edge of the folded sheet 2. Upper and lower portions 32,34 of the folded sheet 2 are then cut away so as to remove the transversely folded edges of the sheet 2. Alternatively, the sheet is separated along the transverse fold lines. This forms a booklet having a spine which is formed by the adhered portions of the panels and a number of pages between the front and back cover panels 16,18.

As shown in Figure 5, to form the label of the invention the booklet 36 is adhered to a support web 38 by a layer 40 of adhesive, such as a water soluble adhesive e.g. poly vinyl alcohol adhesive. Specifically, the rear face of the back cover panel 18 and the flap 26 are adhered to the support web 38 thereby to hold the booklet 36 in a closed configuration on the support web 38. Due to the presence of the band 27 of hydrophobic polysiloxane-containing material on the flap 26, the flap 26 is releasably adhered to the support web 38 by the layer 40 of adhesive. The support web 38 is coated on its rear face with a pressure-sensitive adhesive to render it self-adhesive, and is carried on a release backing material 42. When it is desired to label an article, such as a container, the support web carrying the booklet 36 is adhered by the self-adhesive surface thereof to the container.

When it is desired to access the information printed on the booklet 36, a user pulls flap 26 away from the support web 38, since the flap 26 is releasably adhered to the support web 38, thereby to release the front cover panel 16 and open the booklet 36. The booklet 36 can then be read by the user. The booklet 36 can be separated from the support web 38 by tearing along the line of perforations 28. In this way, the back cover panel 18 remains adhered to the support web 38 and the remaining panels constituting the detachable book-

let 36 can be separated from the container to which the support web 38 is adhered. The detachable booklet 36 is shown in Figure 6. The booklet 36 has a spine 44 formed by the adhered portions of the panels and has five sheet corresponding, in turn, to front cover panel 16, end panel 4, middle panel 8, middle panel 10 and end panel 6.

## Claims

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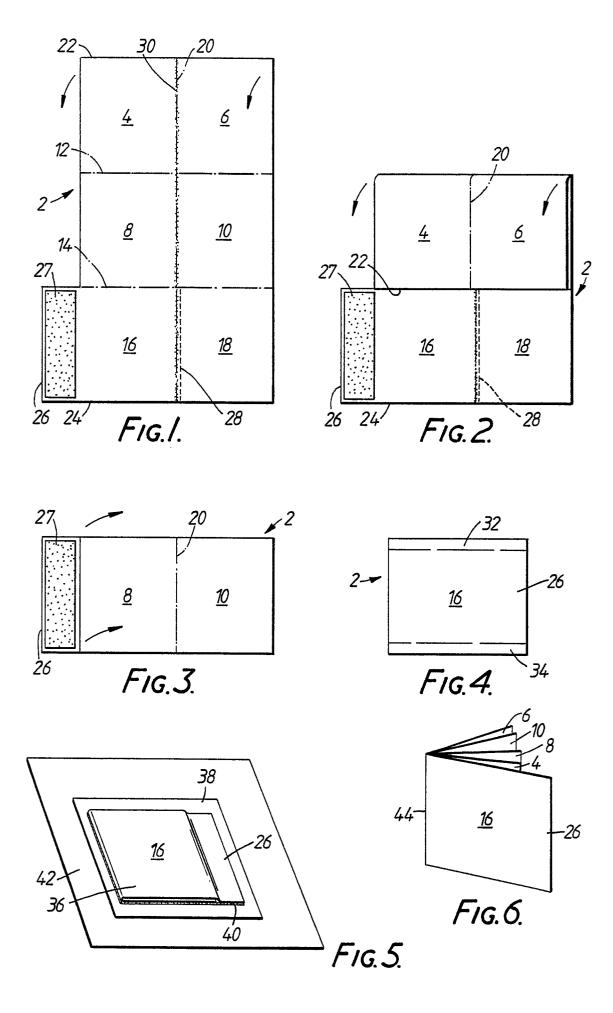
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- I. A method of producing a label for attachment to a container, the method comprising the steps of:-
- (a) providing a longitudinal sheet having a row of a plurality of pairs of panels, each pair being separated from an adjacent pair by a respective transverse fold line and there being a longitudinal fold line separating the panels of each pair, one end pair of panels constituting front and back cover panels respectively for the sheet and the front cover panel having a transversely extending flap;
- (b) applying a strip of glue along the longitudinal fold line on one side of the sheet;
- (c) folding the sheet about the or each transverse fold line so that the panels of the sheet other than the front and back cover panels are superposed over the front and back cover panel, the plurality of pairs of panels being adhered together by the glue strip;
- (d) folding the sheet about the longitudinal fold line so that the front and back cover panels enclose the remaining panels, the flap of the front cover panel extending transversely beyond the remaining panels and the back cover panel thereby to have a rearwardly exposed surface; and
- (e) separating adjacent pairs of panels of the sheet by removing the transverse fold lines thereby to form a booklet.
- A method according to Claim I further comprising the step of adhering the back cover panel and the rearwardly exposed surface of the flap to a support web.
- 3. A method according to Claim 2 wherein the back cover panel has a line of perforations adjacent the longitudinal fold line.
- 4. A method according to Claim 2 or Claim 3 wherein the rearwardly exposed surface of the flap is releasably adhered to the support web.
- 5. A label for attachment to a container, the label comprising a booklet having a plurality of leaves connected along a spine, the leaves comprising a front cover panel and a back cover panel enclosing a plurality of remaining panels, the free edge of the front cover panel which is opposite the spine having a flap which extends transversely beyond the remaining panels and the back cover panel thereby to have a rearwardly exposed sur-

face, and a support web to which the back cover panel and the rearwardly exposed surface of the flap are adhered.

6. A label according to Claim 5 wherein the back cover panel has a line of perforations adjacent the spine.

7. A label according to Claim 5 or Claim 6 wherein the rearwardly exposed surface of the flap is releasably adhered to the support web.





## **EUROPEAN SEARCH REPORT**

EP 87 30 6295

C-4:	Citation of document wi	th indication, where appropriate,	Relevant	CLASSIFICATION OF THE
Category	of rele	vant passages	to claim	APPLICATION (Int. Cl.4)
A	EP-A-0 093 000 * Pages 1-3; fig	(D. DENNY) ures 1,2 *	1-7	G 09 F 3/02
A	EP-A-O 180 365 * Claims; figure	- (D. INSTANCE) s *	1-7	
A	EP-A-0 130 053	- (D. INSTANCE)		
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				TECHNICAL FIELDS SEARCHED (Int. Cl.4)
				G 09 F
	The present search report has b	een drawn up for all claims		
Place of search THE HAGUE		Date of completion of the search		Examiner RS M.L.
X: pa Y: pa	CATEGORY OF CITED DOCU rticularly relevant if taken alone rticularly relevant if combined w cument of the same category chnological background in-written disclosure	IMENTS T: theory of E: earlier profiter the ith another D: docume	r principle under atent document, filing date nt cited in the ap	lying the invention but published on, or plication reasons