



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 028 067 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
16.08.2000 Bulletin 2000/33

(51) Int. Cl.⁷: **B65D 75/56, B65D 75/36**

(21) Application number: **00300274.8**

(22) Date of filing: **17.01.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **11.02.1999 GB 9902943**

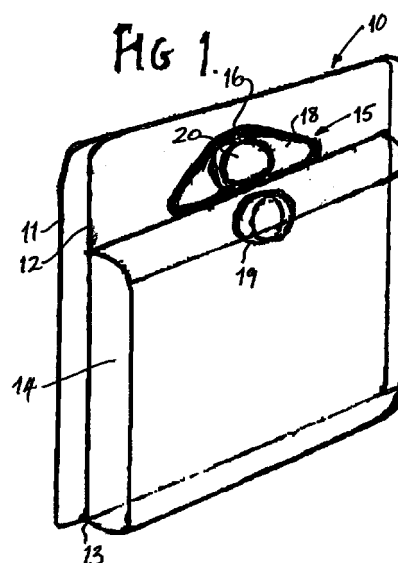
(71) Applicant:
**Alpha Packaging & Design Limited
Worsley, Manchester M28 2LX (GB)**

(72) Inventor: **Briscoe, Gary Malcolm
Wilmslow, Cheshire. SK9 2GD (GB)**

(74) Representative:
**Ajello, Michael John
Urquhart-Dykes & Lord
Greg's Buildings
1 Booth Street
Manchester M2 4DU (GB)**

(54) **Closure for Blisters**

(57) A vacuum/pressure formed packaging container having a portion (15) in which the material of the container is cut to reveal a Euro-slot by which the container may be mounted on a hook or the like, the cut material forming a tab (18) which may be folded over about an edge (17) of the slot to form a closure by inter-engagement of poppers (19, 20) formed by deformation of parts of the container walls.



EP 1 028 067 A1

Description

[0001] THIS INVENTION concerns vacuum/pressure formed packaging containers usually made from plastics material such as PVC or PET and preferably of the type generally referred to as 'blister packs'.

[0002] Such containers may be formed in a single formed sheet with a recessed part foldable to be superimposed with a further recessed or flat part of the same sheet thus to contain, for example, items of merchandise. Alternatively, a single blister may be mounted on a retaining card there being some means whereby the blister and card are maintained in abutting relationship until the package is required to be opened.

[0003] In the case of a single-piece folded container the two parts are held in a closed condition often by the use of so-called poppers i.e. interengaging, friction fitting parts of the material of the container which act much like a press stud and must be forced apart when the contained items are to be removed.

[0004] It is common in such packaging containers for the material in an upper region of the container to be cut to reveal a slot, sometimes referred to as a Euro-slot, by which the packaging may be mounted on a hook or the like for displaying the merchandise. The material cut from the package to reveal the slot is usually disposed of as waste material.

[0005] According to the present invention, a vacuum/pressure formed packaging container having a portion in which the material is cut to reveal a slot by which the container may be mounted on a hook or the like is characterised in that a tab of the material is foldable about an edge of the slot to form a closure for the container.

[0006] Preferably, the entire cut portion is foldable to form the closure tab for the container.

[0007] Alternatively, a tab may be provided which is adapted to pass through the slot to be attached to another part of the container to form the closure.

[0008] The tab may contain a deformation which is frictionally engageable with a further deformation on the container thus closing same by interengagement of the deformations.

[0009] The container may be formed from two parts of a single sheet foldable together and closed by said tab.

[0010] The container may be formed as a single blister to be mounted on or contained within a further packaging container, the two containers being maintained in abutting relationship by means of said deformations.

[0011] The cut material may reveal a Euro-slot in the container and be foldable into superimposed relationship with a further part of the container to form the closure.

[0012] Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

Fig. 1 is a perspective view of a vacuum formed packaging container made in accordance with one embodiment of the invention;

Fig. 2 is a side view thereof;

Fig. 3 is a section through a second embodiment.

and Fig. 4 is a section through a third embodiment.

[0013] Referring now to Figs. 1 and 2 a packaging container is formed from a single sheet 10 of plastics material which may be vacuum formed to provide a backing leaf 11 and a front leaf 12 having a recessed portion 14 which, being creased at 13 may be folded to become superimposed over leaf 11 thus forming there-with a container in which merchandise or the like may be packaged. The material of the sheet 10 is preferably translucent or transparent whereby the contained merchandise may be displayed.

[0014] The container is capable of being suspended on a hook or the like by cutting out, from an upper region 15, a so-called Euro-slot i.e. an aperture having an apex 16 which is to rest upon a display hook.

[0015] In conventional packaging of this kind the material cut from the sheet 10 to reveal the Euro-slot is disposed of as waste material. In this embodiment also, the material of the slot is removed, and a tab 18 of material is formed on the outer end of the front leaf 12 and of a similar shape to the slot whereby when the backing and front leaves are folded together, the tab 18 may pass through the slot as can be seen in Fig. 2. Interengaging complementary deformations or poppers 19 and 20 are formed on leaf 11 and tongue 18 respectively, which when the latter is folded as shown by arrow 21 serve to close the container.

[0016] In an alternative embodiment as shown in Fig. 3, the tool used to cut out the Euro-slot in leaf 11 is incomplete leaving a bottom edge 17 intact whereby the cut material forms a tab 28 which may be folded over as indicated at 29 in Fig. 3. By providing interengaging deformed poppers 30 and 31 on the backing leaf 11 and the cut tab 28 respectively, and an aperture 12a in leaf 12, then once the package is folded as illustrated in Fig. 3 the tab 28 may be folded and the poppers 30 and 31 snapped together to close the package.

[0017] Referring now to Fig. 4, in this case the package is formed from a single sheet 32 recessed at 33 to contain an item of merchandise and surrounded by a paperboard sheet or box 34 which, for example, may have a window overlying the recess 33 through which an item contained therein is displayed. Once again, the upper part of the sheet 32 is deformed to provide a male popper 35 extending rearwardly and a female popper 36 in a tab 37. The cut-away material of the slot is creased about a fold line 37 and if the paperboard sheet or box 34 includes an aperture which passes over the male popper 35, then by snapping the poppers 35 and 36

together, the sheet or box 34 is retained. Sheet 32 may be doubled over as shown at 40 to retain the lowermost rear edge of the sheet or box 34.

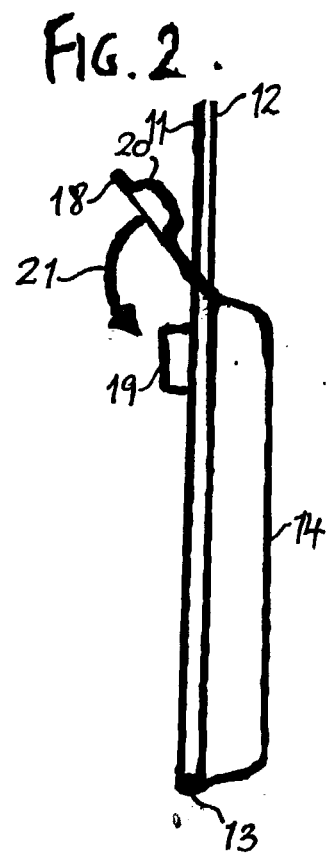
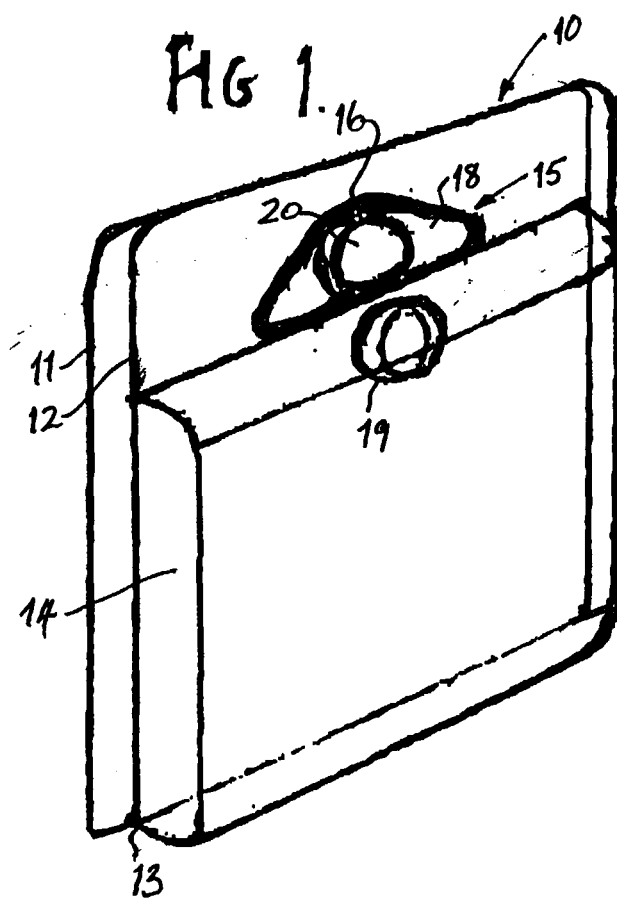
[0018] Thus, it can be seen, that there is considerable advantage in utilising the material removed to reveal the Euro-slot, to provide for closure of the packing container. 5

[0019] While deformed poppers have been illustrated and described, other forms of attachment may be provided whereby the part of the material cut to reveal the suspension or Euro-slot, or another complementary part, may be somehow engaged with another part of the packaging and thus utilised as a closure therefor. In another example, a self-adhesive pad may be provided on the folded material portion which adhesively engages with a part of the packaging again to form the closure. In another example a separate press-stud or the like may be applied. 10 15

Claims 20

1. A vacuum/pressure formed packaging container having a portion in which the material (10) of the container is cut to reveal a slot (at 15) by which the container may be mounted on or suspended from a hook or the like; characterised in that a tab (18) of the material is foldable about an edge (17) of the slot to form a closure for the container. 25
2. A container according to Claim 1, wherein the entire cut portion is foldable to form a closure tab (18) for the container. 30
3. A container according to Claim 1, wherein the tab (18) is adapted to pass through the slot to be attached to another part (19) of the container to form the closure. 35
4. A container according to any preceding claim, wherein the tab (18) contains a deformation (20) which is frictionally engageable with a further deformation (19) on the container thus forming a closure by inter-engagement of the deformations. 40
5. A container according to any preceding claim formed from two parts (11, 12) of a single sheet foldable together and closed by said tab (18). 45
6. A container according to Claim 4, formed as a single blister (32, 33) to be mounted on or contained within a further packaging container (34), the two containers being maintained in abutting relationship by means of deformations (35, 36). 50
7. A container according to any preceding claim, wherein the cut material is formed to reveal a Euro-slot (at 15) in the container wall (12) and a tab (18) foldable into superimposed relationship with a fur- 55

ther part of the container wall (11) to form the closure.



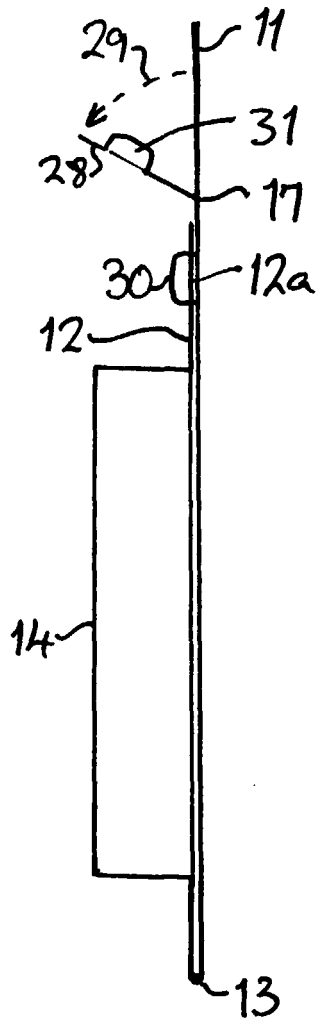


Fig. 3

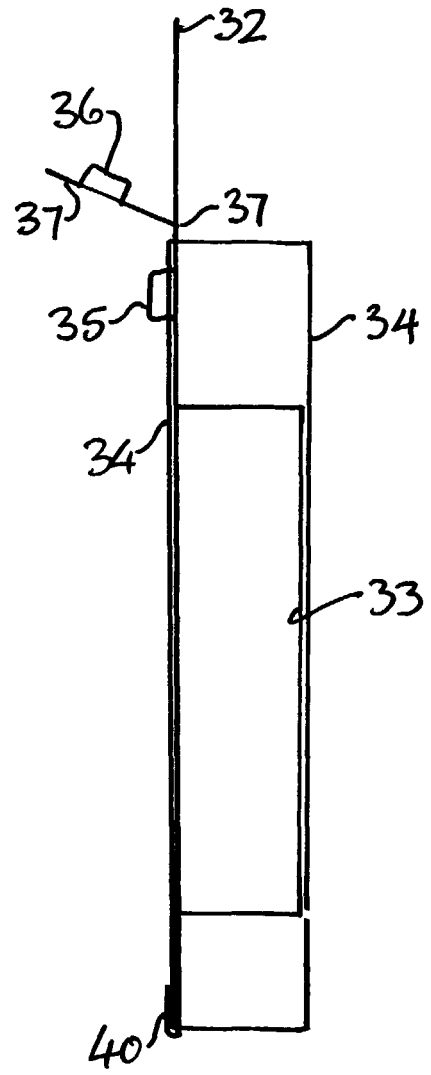


Fig. 4.



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 0274

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.7)
X	US 4 921 102 A (VAN ERDEN DONALD) 1 May 1990 (1990-05-01) * column 4, line 38 - line 68; figures 7,10 *	1-3,5	B65D75/56 B65D75/36
A	GB 2 266 513 A (WELPAC HARDWARE LTD) 3 November 1993 (1993-11-03) * figure 4 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 May 2000	Examiner Zanghi, A
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 30 0274

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-05-2000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4921102	A	01-05-1990	NONE	
GB 2266513	A	03-11-1993	GB 2287698 A, B	27-09-1995